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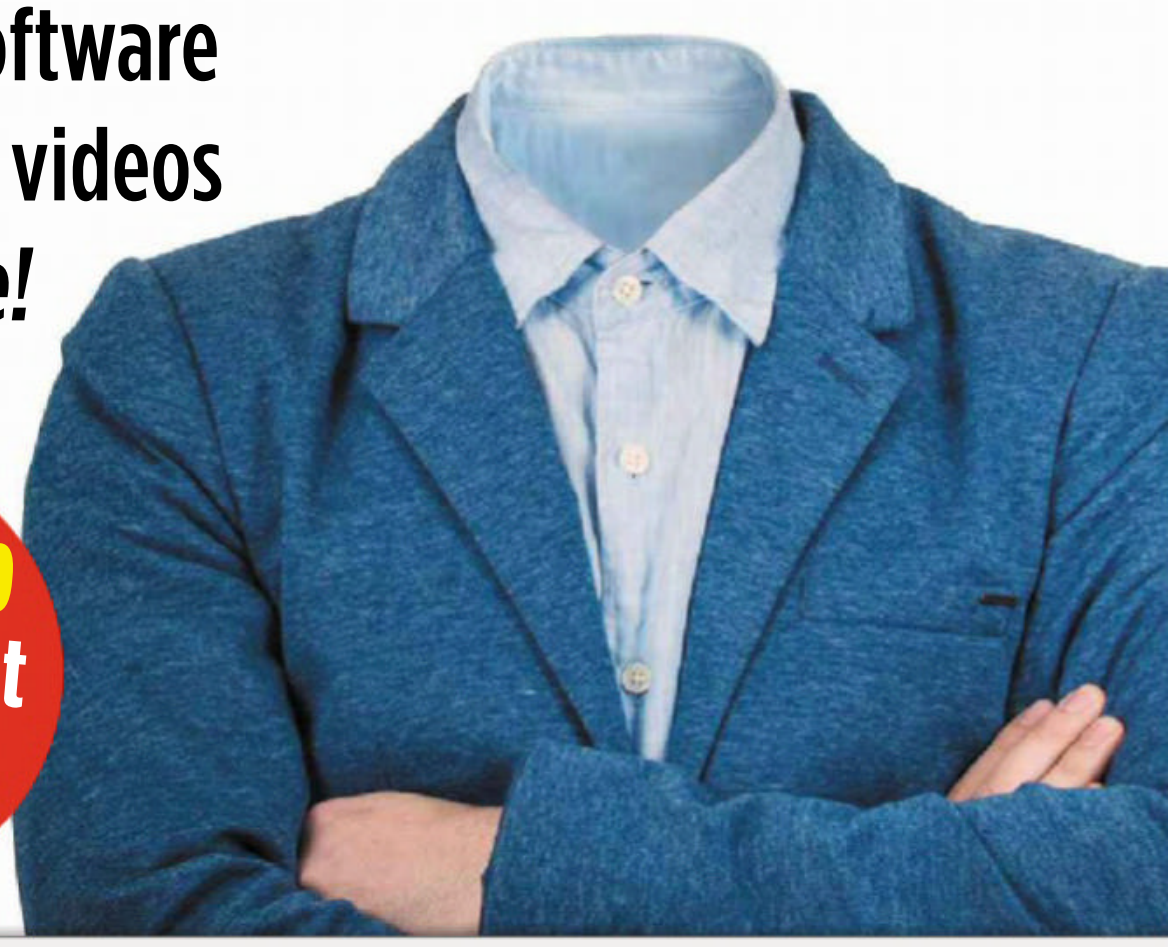

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Shut up your face online!

What's-a matter you, hey? Got no privacy? Well, that's hardly surprising when your face is all over the place, often through no fault of your own. You can't leave the house without CCTV cameras watching and potentially identifying you, while the situation online is even worse. People tag you in Facebook photos without your permission, Google includes your profile pictures in its search results and a new mobile app called FaceApp has been accused of sharing your mugshot with shady Russian companies.

In this issue's cover feature, we look at the rise of facial-recognition technology and explain how to control your public image. Other than wearing a bag over your head, there's not much you can do to foil face-scanning in the real world, but on the web there are steps you can take to keep a low profile and protect your identity.

Follow our guide to shutting off your face online, and you'll find it's-a not so bad, after all!

Robert Irvine, Editor
editor@webuser.co.uk
#webuser

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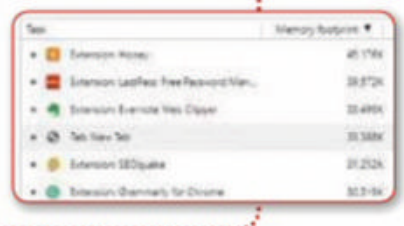

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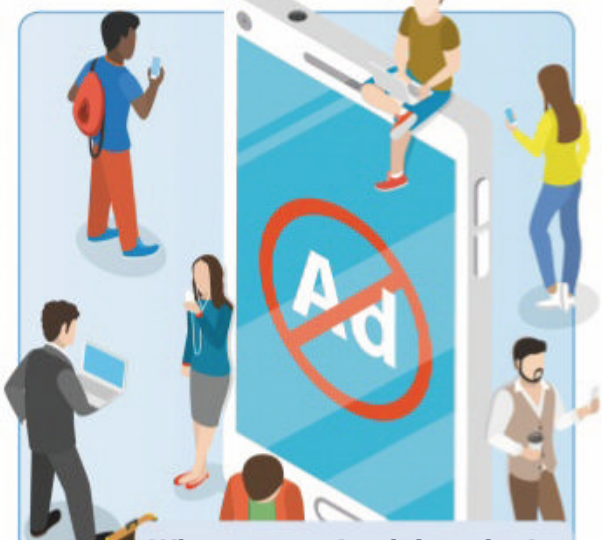

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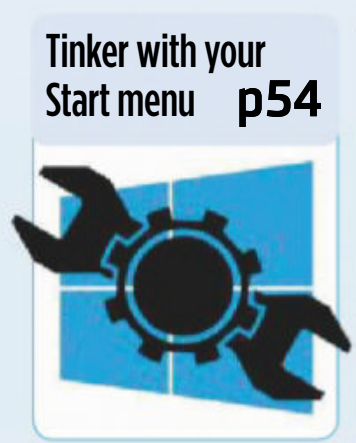

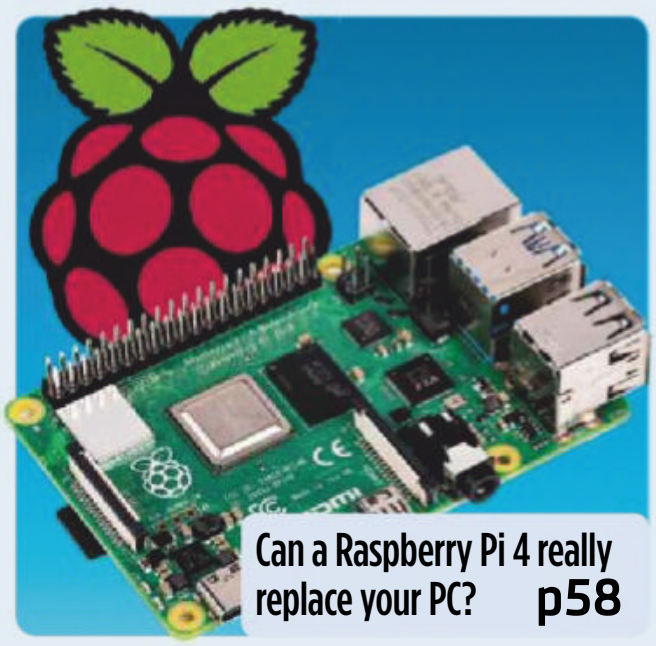

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PRINTING
Printed by Wyndeham Bicester, Oxon
Distributors Seymour 020 7396 4000

Web User is produced by Robirv Limited and published fortnightly by Dennis Publishing Ltd, a company registered in England 1138891.

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A DENNIS PUBLICATION
Web User is published fortnightly by Dennis Publishing Ltd, 31-32 Alfred Place, WC1E 7DP. Company registered in England.
ISSN 1473-7094

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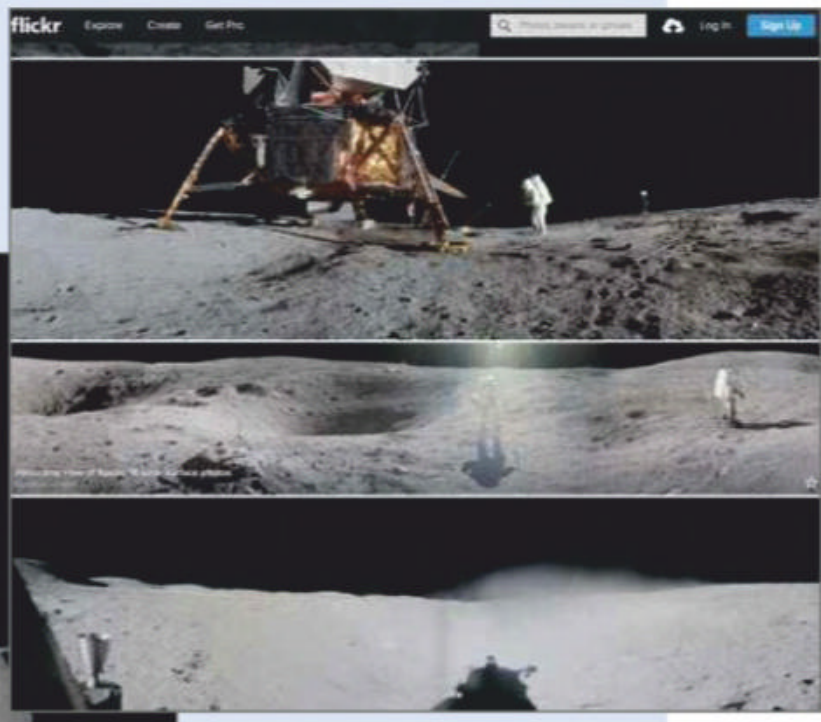
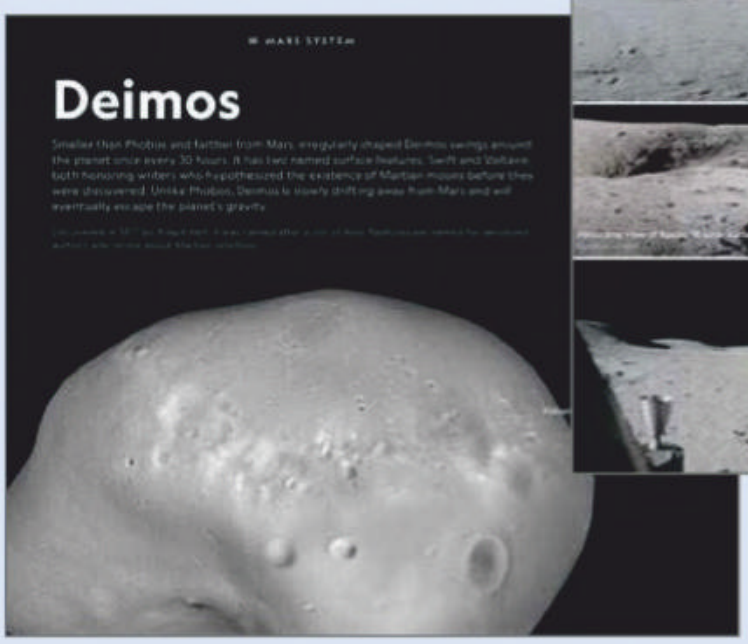
What's New Online

Explore our Moon and hundreds of others





The 50th anniversary of Neil Armstrong and Buzz Aldrin's walk on the Moon may have grabbed all the attention recently, but they're not the only people to have taken such a giant leap. Ten other astronauts have put a boot on the lunar surface, as NASA is now reminding us with the help of imagery specialist Warren Harold.

Harold has combined images taken by the Apollo astronauts to produce a stunning set of lunar panoramas, which you can see on Flickr (bit.ly/flickr481). He has also converted the Apollo 17 panorama into an immersive view on Facebook (bit.ly/facebook481) that gives us Earth dwellers a fascinating glimpse of our nearest celestial object.

Meanwhile, National Geographic (bit.ly/nategeo481) has been busy studying 200 known moons elsewhere in our solar system. Scrolling down the page takes you on a fact-packed tour that explains each moon's orbit, the distance from its parent planet, geological make-up and more. It even includes details of scientific interest and missions, with images that you can drag to rotate for a closer look.

Not to be outdone, Google Earth has teamed up with Science Friday to explore NASA's launchpads and look at how the agency is upgrading them for future rockets (bit.ly/earth481).

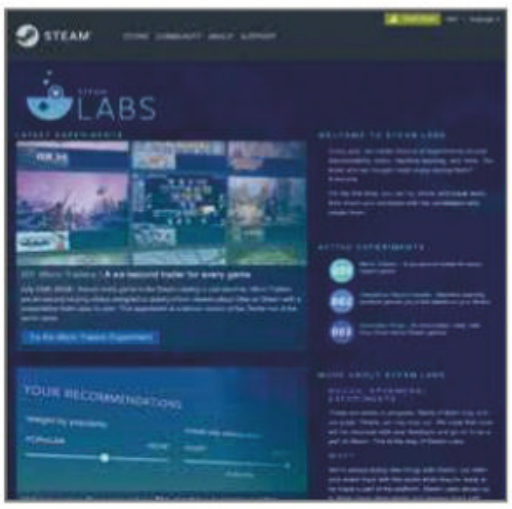
www.nasa.gov

Test Steam's latest experiments

store.steampowered.com/labs

Steam is one of the most popular gaming platforms, but there's always room for improvement. As such, its owner, Valve Software, has been developing some potential new features and is inviting us to try them out.

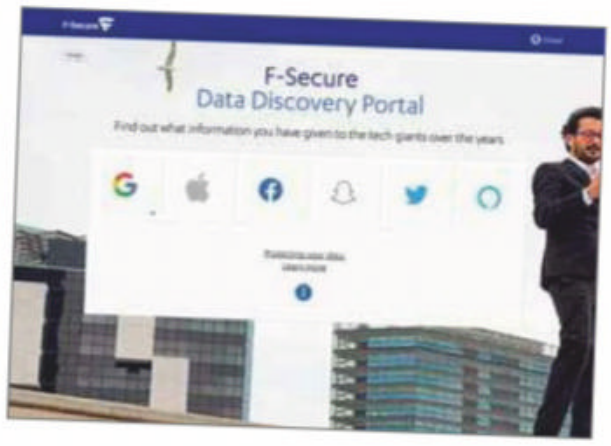
So far, the Steam Labs beta includes three experiments. Micro Trailers lets you hover your mouse over a thumbnail of a game to see a six-second snapshot of the action, with options to run multiple trailers at once. Interactive Recommender uses machine learning to examine the games you play, and lets you filter its results by popularity, release dates and tags.



The final experiment is an automated half-hour programme generated from snippets of new and popular games as a way of encouraging you to discover something new. This one can be a little tiresome, but the point is that you can leave feedback to help Valve decide which experiments to include in Steam and which to abandon.

Discover how web firms handle your data

bit.ly/fsecure481



Most free online services are not really free. The price we pay for using them is the data we share and the privacy we give away. This means it's important to know exactly what data the web companies are collecting, but since the details are often buried deep within a website, finding out can be a chore.

F-Secure has set up a Data Discovery Portal to make the process easier, and it's entirely free. Visit the site, then click a link for one of the six firms – Google, Apple, Facebook, Snapchat, Twitter and Amazon. This takes you straight to the relevant data and privacy pages on the service itself – after all, there's nothing better than hearing this important information straight from the horse's mouth.

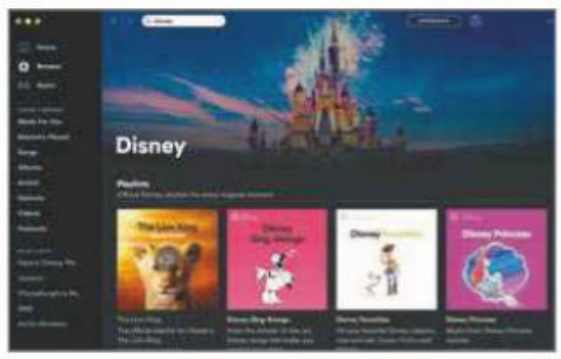
There's not much more to it, other than a few tips for protecting your data, but the site gives you a quick way to tighten your security settings.

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

Binge on Disney tunes with Spotify

bit.ly/disney481

Oh boy, has Spotify got a treat for you. Search "Disney" on the music streaming service and you'll be taken to a hub full of music from Disney movies and TV shows such as *Frozen* and *The Lion King*. You'll also find playlists from Star Wars and Marvel movies, as well as compilations for road trips, showers and bedtime.



Instantly translate 88 languages

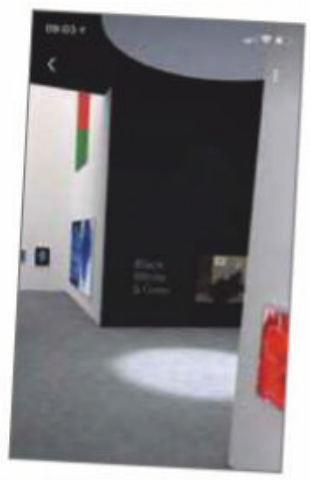
translate.google.co.uk

Google Translate's Instant Camera has added 60 more languages to its repertoire, making the world feel more accessible than ever. You can now launch the iOS or Android app, point the camera at some foreign text in one of 88 languages and translate it to English or another lingo instantly, which is sure to make holiday travel much easier. What's more, the app automatically detects the language you're pointing at, and Google has improved the accuracy of its translations. Just open the app, tap the camera icon and aim at the text you want to translate.

Walk around a colourful art gallery

artsandculture.google.com

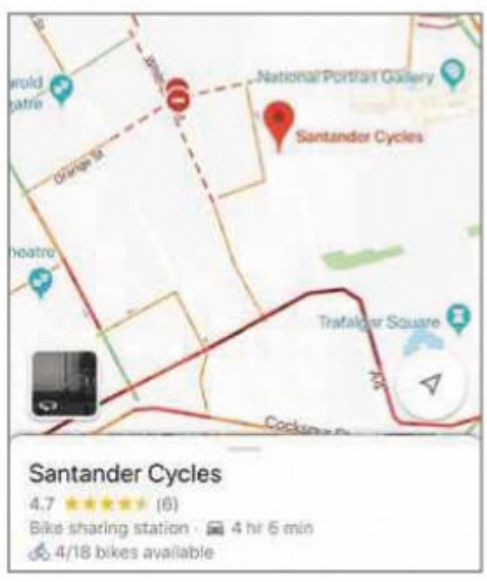
After its online exhibition of paintings by Vermeer last year, the Google Arts & Culture app has a new virtual 3D art gallery, this time themed around colour. You can stroll around its four rooms using your iOS or Android smartphone to see the exhibits, which are grouped according to their palette. The gallery uses augmented reality to display works taken from 33 partner institutions across four continents. To view them, launch the app, select Pocket Gallery and choose The Art of Colour. Then point your camera at a flat surface, move it in a circle and see the art spring to life.



Find bike-sharing stations nearby

www.google.co.uk/maps

If you need to get on a bike, you can now check for available cycles using Google Maps. The new feature shows you the location of public bike-sharing stations in 24 cities across the world, including London and Dublin, highlighting how many bikes are there and whether there's space to leave one you've already hired. Just search for a bike-hire company to see the information.



NEW VOICE COMMANDS

Pick a random number

Say "Hey Google, give me a random number", and after a jazzy sound effect the Assistant will do just that. Good for picking a horse or lottery numbers, perhaps?

Chat in two languages

Provided the app has permission to use your microphone, Google Translate for iOS and Siri lets you conduct a conversation in two languages to help you break through the language barrier.

Discover popular songs

If you subscribe to Amazon Music, you can ask for the most popular songs in a certain city. Say, "Alexa, play the top songs in [cityname]" to hear what's hot.

Check hygiene ratings

www.just-eat.co.uk

Just Eat is now dishing out Food Standards Agency hygiene information for tens of thousands of restaurants. Before ordering your grub, click the Info tab on the eatery's page to see a rating and find out when it was last inspected.

See and hear London species

augmentedarchitecture.org

Download the Deep Listener app and head for Kensington Gardens and Hyde Park in London. There you can embark on an augmented-reality ecological expedition that lets you see and hear London plane trees, bats, parakeets, azure blue damselflies and reedbeds.

Switch from songs to videos

www.youtube.com/musicpremium

Subscribers to YouTube Premium and YouTube Music Premium can now switch from playing audio to watching a music video without interrupting the tune. The feature works for five million tracks.

Tell us your favourite new things at twitter.com/webusermagazine

Need to Know

Millions at risk from malicious browser extensions

What happened?

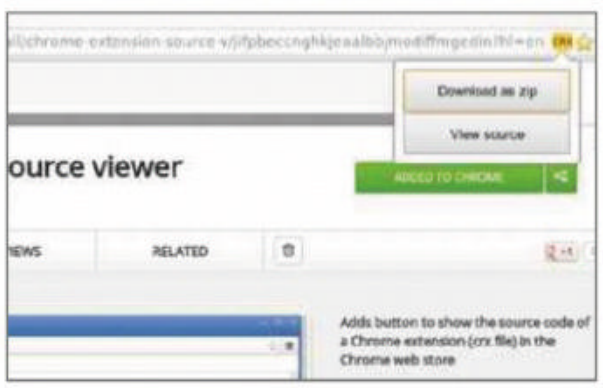
Security experts have warned that extensions for the Google Chrome and Mozilla Firefox browsers may be snooping on your data. Researcher Sam Jadali uncovered the DataSpii leak (bit.ly/dataspii481), in which eight browser extensions used by millions of people were found hoovering up data, including details of the web pages they visited, and their usernames and passwords.

Web page URLs may not sound like much of a security breach, but their interception can be serious. Plenty of Google Docs and shared folders have no protection, so anyone with a link can access them. As Jadali explained, someone might share a Microsoft OneDrive folder with their accountant using a link, for example. If hackers intercept the link, they can open an account at Office 365 and access the folder and documents – a serious problem if the documents include tax returns, invoices or other sensitive files.

Information gathered in this way was bundled up by the attackers and sold online to whoever wanted it, Jadali said. Mozilla and Google have removed the offending extensions from their stores and disabled the snooping functions. It's unclear how many of the four million people who installed the extensions were actually targeted by the attackers.

How will it affect you?

Sam Jadali spotted eight problematic extensions: Hover Zoom, SpeakIt!, SuperZoom, SaveFrom.net Helper, FairShare Unlock, PanelMeasurement, Branded Surveys, and Panel Community Surveys.



Chrome Extension Source Viewer lets you inspect extensions before you install them

If you're one of at least four million people who installed a rogue add-on, the first step is to uninstall it. However, you could be affected even if you didn't install one but communicated with someone who did. In that case, there's little you can do. If you're worried that a login has been leaked, it's worth changing your passwords, but unless a friend or family member specifically tells you they used a suspect add-on, there's no need to panic, because the researchers contacted those affected.

Both Google and Mozilla have disabled the data-snooping functions in the extensions and banned them from their add-on stores. However, Jadali said that data is still leaking from the extensions, so make sure you take the time to uninstall them completely.

In general, it's best to install only extensions you know from sources you trust – as you would with apps on your phone. If you want to check that an extension won't snoop on you, install a tool called Chrome Extension Source Viewer. (bit.ly/chrome481). Then, when browsing for extensions, click the viewer's toolbar button while on an add-on's Chrome Web Store page. Click to "view source", find the "manifest .json" file and look for an "unsafe-eval" policy. This indicates that the extension can execute remote code, which is a serious security risk.

If that all sounds too complicated, try running any Chrome extension through Duo Labs' security checker, CRXcavator (crxcavator.io). Submit the extension's ID number – the long string of letters at the end of its URL – and you'll receive a report revealing any security concerns.

What do we think?

Your browser is at the centre of your web use, so it's essential that it's safe, secure and private. Many extensions are handy tools that bring convenience, and some even enhance your security, but never forget that they have a privileged position in your browser. It can be hard to tell whether an extension is behaving as it should, so think twice before you install them, and ensure you get them only from reputable sources, such as the Chrome Web Store. Avoid installing extensions you don't really need, and help friends and family members who use extensions to manage and delete any they don't use.

Google and Mozilla need to do a better job of monitoring these tools and flagging up potential problems without users having to rely on third-party security checkers or independent researchers such as Jadali. If we can't trust browser extensions, what's the point of them?

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

Three won't charge customers for 5G

What happened?

The next-generation of mobile networks has arrived, but they may not cost you any more than the 4G you're using now. Three has promised to roll out its 5G services across all existing packages at no extra cost. This means that if you're a Three customer or you switch to that provider, you'll receive 5G for the same price as 4G.

Three's contracts cost as little as £10 a month for 4GB of downloads. In comparison, the cheapest 5G contract on Vodafone costs £30 a month, while EE's most affordable plan is £32 a month – although it comes with a 20GB data allowance. A comparable package on Three costs £18 a month.

The latest generation of mobile networks brings faster mobile speeds and greater capacity, especially in crowded areas. It should mean you can get online even while you're at a football match or in other crowded places.

How will it affect you?

One important caveat to Three's offer is that its 5G network will be available only in London from August, although the company says it will expand its coverage to 25 other cities by the end of the year. EE started rolling out its 5G services in May, while Vodafone followed suit in July. O2's network will arrive in October (see page 10 for details).

What do we think?

While 5G is already an option for Londoners and those in larger cities, most Brits won't have coverage yet. What's more, plenty of phones don't even support 5G. That means there's no need for most of us to rush into upgrading – and no reason to pay extra for it. If your phone supports 5G, you live in an area with coverage and you're tired of waiting for downloads, it may be worth paying more for 5G now. Everyone else is better off saving their money until the service becomes standard.

Sky scares users with password reset email

What happened?

Sky raised eyebrows when it sent a password reset email to its customers, prompting fears of a phishing scam. The email began "Dear Customer," rather than using the customer's name, and included a link to click to reset the password – making it look like a dodgy email designed to trick people into giving away their credentials instead of a real security message from a major company.

The message didn't reveal why Sky was asking customers to reset their passwords, simply saying that it was to "keep their account safe". While companies often send emails advising users to reset their passwords after a data breach, Sky said that wasn't the case here, and that no accounts had been hacked. Security researcher Graham Cluley speculated that Sky had detected dodgy behaviour on some accounts and sought to protect everyone with a reset.

How will it affect you?

If you're not sure who an email is from, don't open it or click any links it contains. If you need to reset a password, go directly to the relevant site and log into your account. That way you can change your credentials without the risk that a criminal may be trying to steal your data. If you click a link in an email, you could be subject to a "man in the middle" attack, where the hackers sit between you and the real site and can see your new password details.

What do we think?

This appears to be a communication failure on Sky's part. We're all taught to look out for phishing emails, but that advice falls apart if legitimate emails start to look as if they could have come from criminals. Anyone who was confused by the email should be proud of themselves – well done for being alert to such threats. Perhaps those cautious Sky customers could teach Sky a thing or two about digital security.

O2's 5G network won't use Huawei hardware

What happened?

O2 has announced plans for its 5G network, which is due to launch in the UK in October. According to the Spanish-owned operator, its 5G service will initially roll out across London, Edinburgh, Cardiff, Belfast, Leeds and Slough. The company hopes to have the rest of the UK covered by summer 2020.

O2's main priorities for its 5G service will be areas where the current 4G networks are already stretched to capacity. Railway stations, shopping centres and entertainment venues such as the O2 Arena are all earmarked to receive the network boost.

There's a twist, however: unlike the other network providers, O2 won't be using hardware from embattled Chinese manufacturer Huawei, which has been caught up in a bitter dispute over security and privacy concerns. O2's chief executive, Mark Evans, explained the decision, saying "we respect all three operators, they were thorough in their submissions, but we were convinced that the best choices for us at this time are our current partners, Ericsson and Nokia." He admitted that the company may still use Huawei products in the future.

The news follows Vodafone's announcement that it will bring its 5G network to even more cities than first suggested, with Bolton and Lancaster now on course to benefit from the service.

How will it affect you?

O2 will be the last of the four major mobile networks to offer the next-generation phone service to its customers. EE's launch in May was quickly followed by Vodafone's, while Three's service is due to arrive in August (see page 9). This means that once O2 has adopted 5G, you'll be able to take your pick of the networks.

As we've mentioned before, however, moving to 5G won't be cheap. Not only will you pay a lot more for a 5G contract than you currently do for the slower 4G, you'll also need to stump up for a 5G-enabled phone. O2 has confirmed that Samsung and Xiaomi are among the initial line-up of handsets on offer.

What do we think?

We're glad to see that O2 is *finally* joining the party, no matter how late. Competition among the top four mobile operators can only be a good thing. Switching to 5G is currently expensive, so we're hoping to see prices fall as each company battles to attract new customers. We're also keen to see the technology roll out in less obvious locations. Despite all the fanfare over 5G, very few places in the UK can currently take advantage of its speed – particularly those that need it most.

FIRST LOOK

Kindle Oasis

bit.ly/oasis481

If you're thinking of picking up the all-new Kindle Oasis, you'd better be a keen reader. The device will set you back an eye-watering £230, which would buy you an entire shelf of those old-fashioned paper-based books we all used to read – but it's arguably worth every penny.

As with the rest of the Kindle family, Amazon's new e-reader is lightweight, with plenty of storage space for books, and uses the excellent E ink technology that makes reading from the screen easy on the eyes. The waterproof base model packs a 7in glare-free screen into a shell that measures 6.25in x 5.5in and is just a quarter of an inch thick at its widest point. Inside, it has 8GB of internal storage, which is more than enough for a typical Kindle book collection.

Two other versions are available, which cost slightly more: 32GB and 32GB + 4G. Both are better options if you download audiobooks from Amazon's Audible, as this requires more storage space. To listen, simply hook up your headphones or speakers via Bluetooth. The Oasis comes in two colours: graphite and gold.

The main selling point of the Oasis is its adjustable light. Unlike the cheaper Paperwhite, which has a fixed backlight, the Oasis can display different shades of light, from white to a pleasant warm amber that's easy on the eyes and similar to the 'reading mode' option in web browsers. The device automatically adjusts the brightness to suit your surroundings, too, so you won't be constantly fiddling with the settings.

Amazon has refined the Oasis to the point of perfection. Ebook lovers are sure to snap it up, because it does everything the Kindle already does so well and then does it even better – although you'd certainly hope so for the price.

It's available to buy now from Amazon. Expect to see the new Oasis top many a Christmas wish-list.

WHAT'S THE RUMOUR

Has Microsoft redesigned the Windows Start menu?

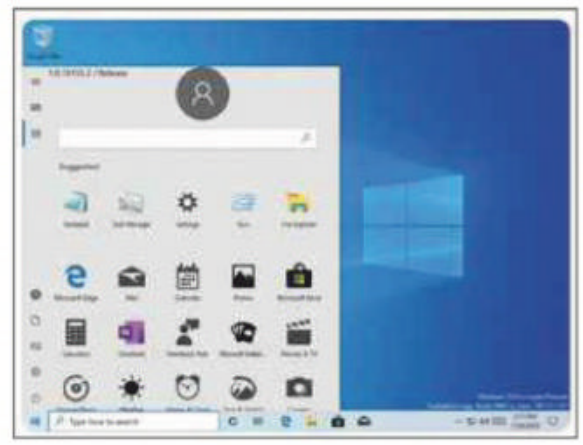
A screenshot showing a redesigned Windows Start Menu appeared online, leading many to wonder if Windows 10 is set to receive a new menu.

According to those in the know, the menu was originally built for internal Xbox development but was accidentally distributed to Windows 10 Insiders who use 32-bit PCs. Twitter user NTAuthority (bit.ly/start481) shared the image.

The alleged menu isn't particularly attractive, with a dull grey background and flat, almost colourless icons. It also seems to have a GIF-search tool tucked inside the emoji picker – so if nothing else it's very 21st century. The most striking aspect, however, is that the new-look Start seems to do away with Live Tiles.

Even with the apparent removal of this controversial feature, reactions to the menu on social media have been overwhelmingly negative. Before we jump the gun, however, it's worth noting that, if the image is genuine, the menu could still be in its early stages of development and so lack the polish of a finished update. Also given that the build was sent only to 32-bit PCs, many have suggested that it's destined for the long-awaited Windows Lite, rather than the full Windows 10 operating system.

This isn't the first time Microsoft has made such an error. In 2017, the company accidentally sent out internal builds of Windows 10 for PC and mobile, which left some devices constantly rebooting. The team in charge were forced to offer users a recovery tool to get their devices up and running again.



Regardless, it's an embarrassing leak for Microsoft. Dona Sakar, who leads the Windows Insider program, stated that Microsoft was "looking into it". A spokesperson later admitted that "This was an error and we've since pulled the build".

LIKELIHOOD RATING

✓✓✓✓✓

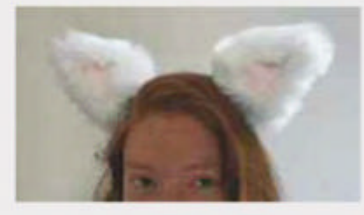
After so many redesigns, no one should be shocked to see yet another version of the Start menu – though we doubt any finished version would look this bad. Given that only 32-bit PCs received this accidental build, we suspect that the new menu may be exclusive to Windows Lite.

What's new on Kickstarter

Our favourite new project on the crowdfunding site

EarGear

bit.ly/ears481 | From £99



EarGear is the natural next step for people who like to apply animal-ear filters to their photos. Created by The Tail Company – the same business behind animatronic animal tails – these furry lugholes stretch over your head like an Alice band. By connecting the kit wirelessly to your phone via Bluetooth, you can control the ears with an app. When set to Hear Mode, the headpiece responds automatically to audio so that the ears twitch, tilt and turn in the direction of the sound, just like the real thing. You can support the project for just £1, but the full kit will cost you £99.

WEBOMETER

WE LIKE...

New PM promises faster UK broadband

The new Prime Minister, Boris Johnson, has announced a £3.6bn Towns Fund to bring fast full-fibre internet to 100 towns around the UK to ensure they get "the improved broadband connectivity that they need".

Dark mode is coming to the iPhone

Apple has confirmed that a dark mode is finally coming to the iPhone. The much-requested feature will be part of the iOS 13 update due this autumn and will apply a dark colour scheme to apps, making them easier on your eyes at night.

WE DON'T LIKE...

Apple workers listen to Siri recordings

Apple has revealed that "a small portion of Siri requests" are reviewed by its contractors, although the recordings are not linked to an Apple ID. The news comes after Google admitted listening to private chats through Google Assistant.

Dangerous Android spyware discovered

A new strain of Android spyware believed to be one of the most sophisticated yet has been discovered. Known as Monokle, the malware performs various hacking tasks, and embeds itself into popular apps such as Evernote and Skype.

Stay Safe Online

News about the latest threats and advice from security experts

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

Ransomware attacks on the rise in the UK

The UK was the biggest global target for ransomware attacks in the first half of 2019, according to a report by security company SonicWall, with the number of incidents rising 195%.

The report states that there were 6.4 million attacks in the first six months of the year, which the company attributes to a growing preference among criminals for 'ransomware as a service', as well as open-source malware kits becoming cheaper and more readily available online.

While ransomware soared in the UK, malware detections have been falling overall in 2019, following a record-breaking 2018 that saw 10.52 billion attacks worldwide. The US and the UK are still the most attacked nations, but both experienced drops in the number of attacks against them, with the exception of encrypted malware attacks. So far in 2019, researchers have detected 2.4 million encrypted attacks, which is almost the same number detected for the entire year of 2018 (2.8 million).

bit.ly/ransom481

Google pays $13 million for illegal data gathering

Google is set to pay millions of dollars to end a protracted legal battle over allegations of privacy violation through its Street View mapping project.

The search giant's fleet of geo-mapping vehicles unwittingly collected masses of data from unprotected Wi-Fi connections while roaming the streets. Harvested information included email addresses and passwords, even though Google said it only intended to gather data to improve location-based services.

Credit: 1000 Words / Shutterstock.com

Google is now expected to pay $13 million (£10.4 million) to end a privacy lawsuit launched by 22 plaintiffs who were affected by the data harvesting. The debacle came to a head in 2010 when Google admitted it had "screwed up" by accidentally taking the data, but Privacy International accused Google of doing so intentionally.

As part of the settlement, Google promised to destroy any data it still holds, and to teach web users how to better protect their privacy online.

See our feature on page 40 for more about Street View privacy.

bit.ly/street481

Security Helpdesk | Your questions answered by security specialists

THIS ISSUE'S EXPERT: Leonid Grustniy, Security Analyst at Kaspersky (www.kaspersky.co.uk)

KASPERSKY lab

Q What's the best way to deal with tech-support phone scams?
Andrew Beesley, Facebook

A One day you receive a phone call from someone who addresses you by name and introduces themselves as a tech-support specialist of a large software company. They tell you your computer has serious problems that need urgent attention, and that to fix them you must install a special program and give the caller remote access. What could go wrong?

> "Never give anyone who calls out of the blue remote access to your PC"

In the best-case scenario, such "support" will pretend to repair your PC and then charge you a fortune. In the worst, the criminals will steal your financial data and try to withdraw money from your bank account.

Generally speaking, you should never give anyone you don't know remote access to your PC. Most tech-support reps can solve your problems over the phone or by email.

If someone calls you out of the blue and asks for access to your computer, you shouldn't expect any good to come of it.

Never listen to scammers and never give credence to their threats – feel free to say no. If someone claims to have detected suspicious activity on your computer, scan it using reliable antivirus software to locate and neutralise malware – if there is any.

Also note the caller's phone number and search for it online to see if you find any information about the criminals on the web. If it's not already listed, you can add the phone number to a database of scam and spam numbers, which may alert other users and help them avoid being tricked by the scammers.

Email us your security questions at webuser@webuser.co.uk

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SEAGATE 2TB Sata3 HDD
NVIDIA RTX2070 8GB
KOLINK Observatory
MICROSOFT Windows 10 or 10 Pro

CREATE YOUR OWN CPU-MOTHERBOARD UPGRADE BUNDLE

*Sales subject to our terms of sale available online - www.palicomp.co.uk - Configuration issues will be advised by phone - any alternatives will also be advised by phone before proceeding with the order. Systems Custom built then are tested 100% prior to dispatch - dispatched via courier for next working day delivery - other delivery options available online. 0% Finance upto 12 months only - terms online - early settlement fee just £29.00 - apply online or phone. Prices inclusive of VAT and free UK mainland shipping. Q-jump cut-off time 15.00pm.

Best New Websites

Site of the Fortnight

SOCIAL MEDIA

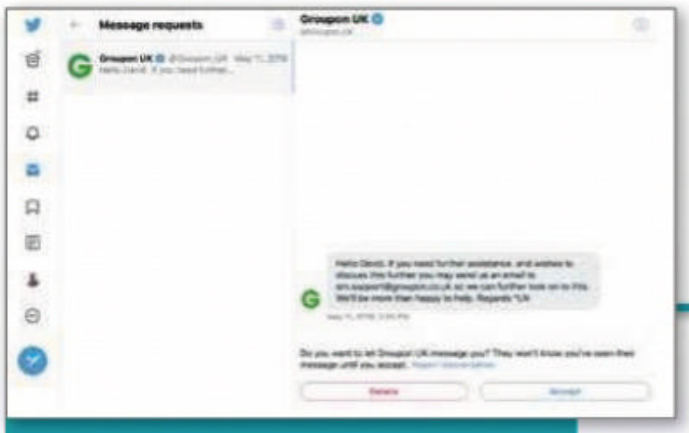
RELAUNCH

Twitter

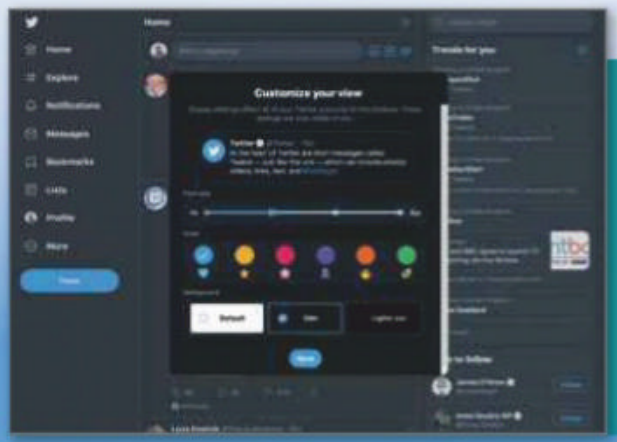
twitter.com

Whenever a major website is redesigned, users invariably fume that it doesn't feel quite the same. So is the revamped Twitter #good or #uglyashell? Well, we're leaning towards #improvement. The desktop site now looks more like the mobile version, while the navigation bar on the left places important sections more easily to hand. Useful options are no longer hidden behind the Profile icon, although fans of Moments have to delve into the More menu. Instead, the Explore option, which combines hashtags, live video and trending stories, gains greater prominence. Switching profiles is easier too. Overall, it's a worthwhile update.

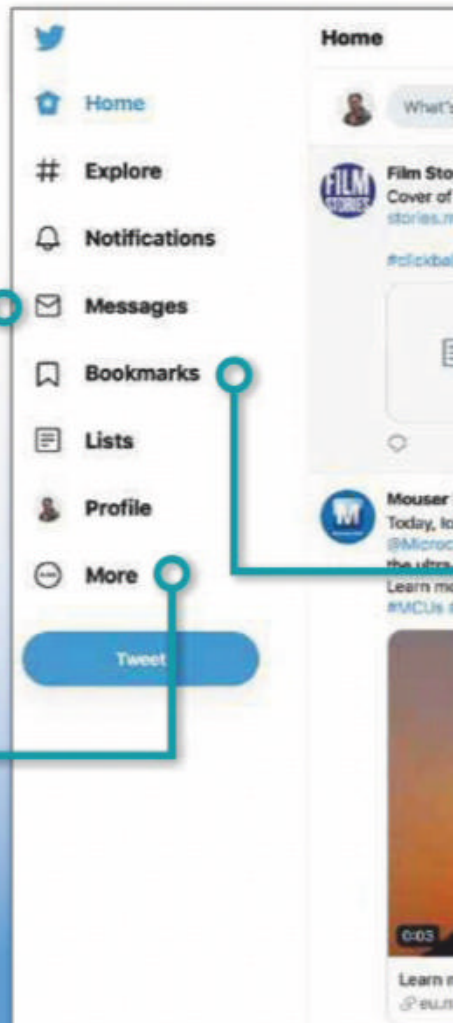
Our rating ★★★★★

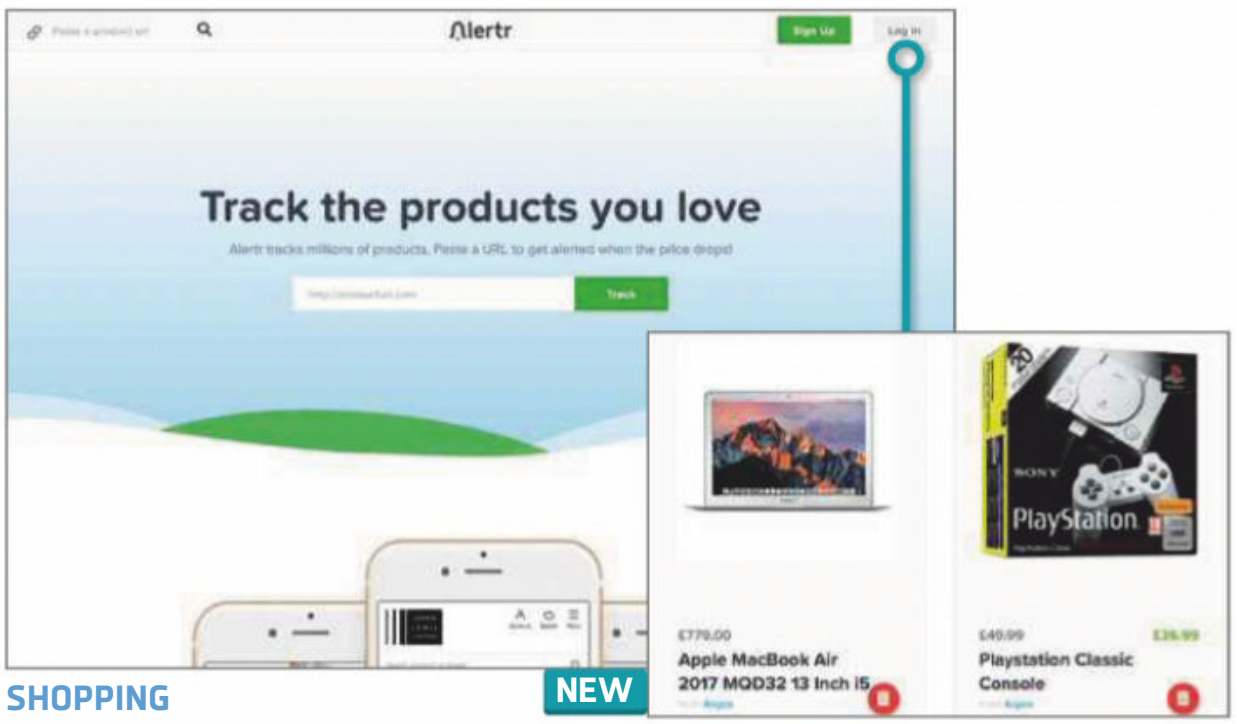


MESSAGES
The improved Messages section lets you see your conversations in a list and view your sent messages



DARK MODE
Select More and choose Display to try two new dark modes as well as other customisation options





NEW

SHOPPING

Alertr

alertr.co.uk

Alertr is a new price-tracking website that lets you enter the URL of a product you find online so you can receive alerts when the price drops or reaches a level you're happy to pay. In that sense it's nothing new, but because the site lets you track items from more than 250 high-street and online retailers, including Argos, Currys and Boots, it's proving hard to ignore. We love the prominent input bar and the ease with which you can manage items you're tracking and place them in sharable collections. The site alerts you by email (although text messages would be handy too) and even recommends similar products you might consider, which is a nice touch.

Our rating ★★★★☆

NEW

CULTURE

Brent 2020

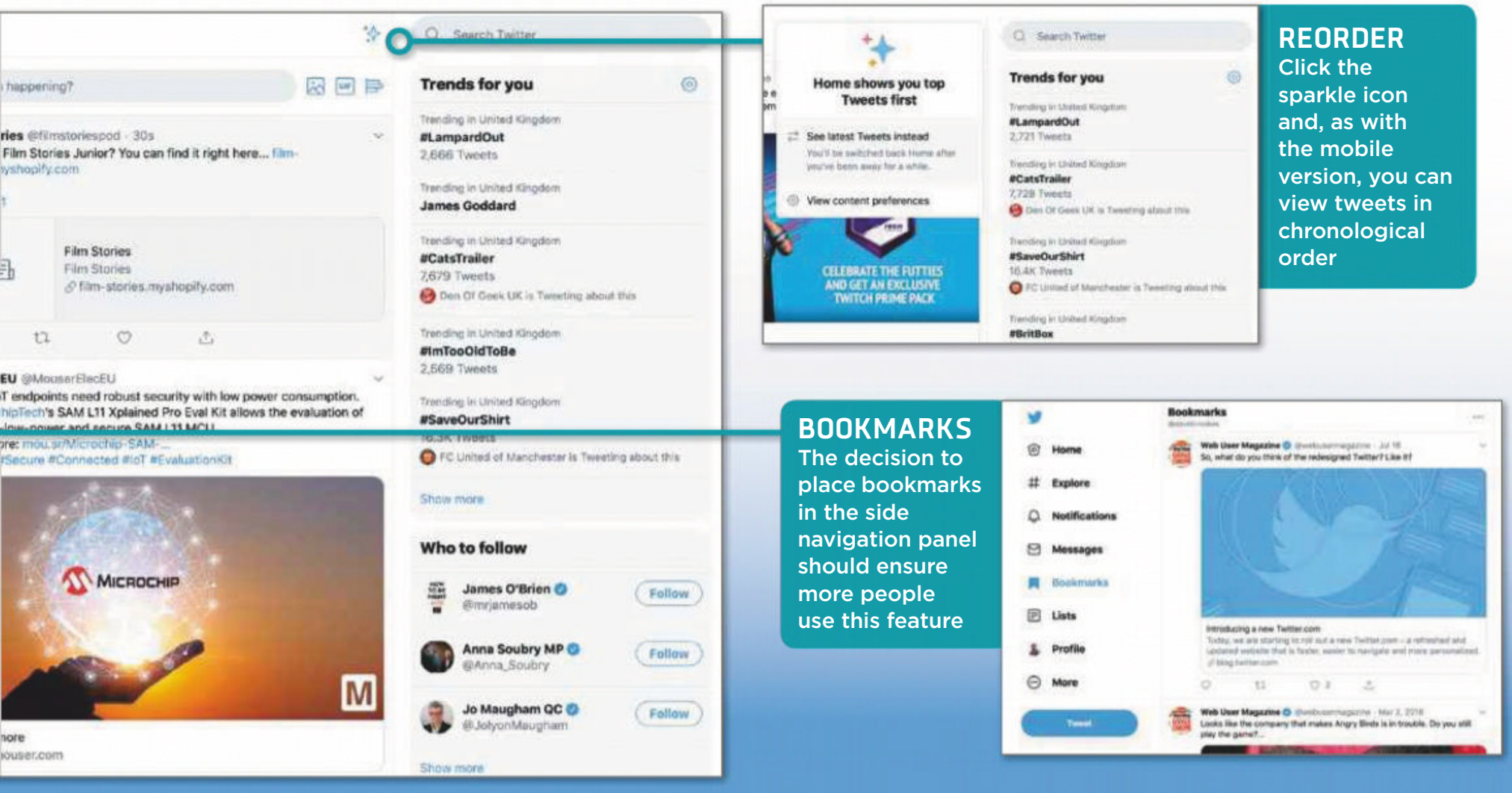
www.brent2020.co.uk

Brent is not only the home of Wembley Stadium, it's also next year's London Borough of Culture, and it's certainly embracing the title. It has launched this colourful website to entice people to get involved and is teasing potential visitors with an early glimpse of the activities to come. Confusingly, these are listed by the date they were posted rather than when they're due to take place, but with a full programme promised in the Autumn, a growing news section called Brent Stories and details of grants for local people, organisations and groups, there's plenty here to keep you coming back.

Our rating ★★★★☆

Reviews by David Crookes

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



REORDER
Click the sparkle icon and, as with the mobile version, you can view tweets in chronological order

BOOKMARKS
The decision to place bookmarks in the side navigation panel should ensure more people use this feature

RELAUNCH

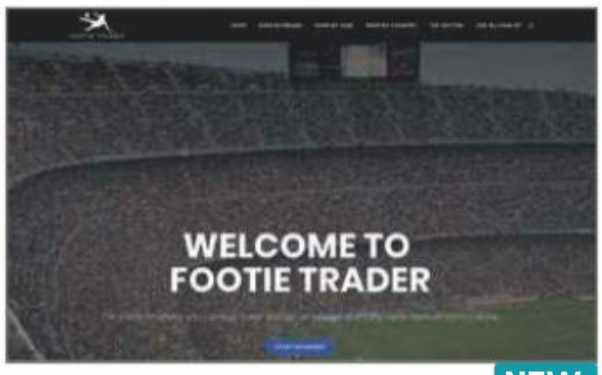
MUSIC

Warner Classics

www.warnerclassics.com

Fans of classical music are sure to be in tune with Warner's relaunched Classics and Erato website. New releases and videos are easier to find, even though the site has dropped the news section, but aside from the new drop-down menu, the big difference is the addition of streaming. You can listen to 30-second clips from the company's catalogue for free, and if you have an Apple Music or Deezer account, you can hear full recordings and curated playlists. Most songs are available via Spotify, too, although we found that not all artists made their music available in this way.

Our rating ★★★★☆



NEW

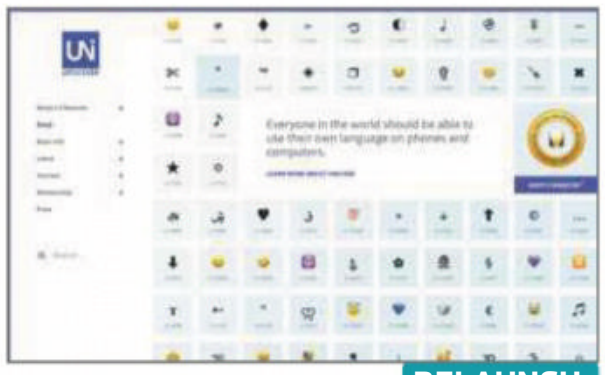
SPORT

Footie Trader

footietrader.com

Football fans are a nostalgic bunch, and what better way is there to relive the memories than to get hold of some vintage gear? This marketplace for memorabilia scores highly because it allows both buy-it-now and auction listings. With clear trading pages, PayPal payments and filters for condition, price range, year and brand, it's a real winner. You can't filter by club, which strikes us as odd, and the way it handles PayPal is a little clumsy, but listing items is easy. Only a handful of sellers are involved at the moment, but the site is sure to attract more supporters.

Our rating ★★★★☆



RELAUNCH

EMOJI

Unicode

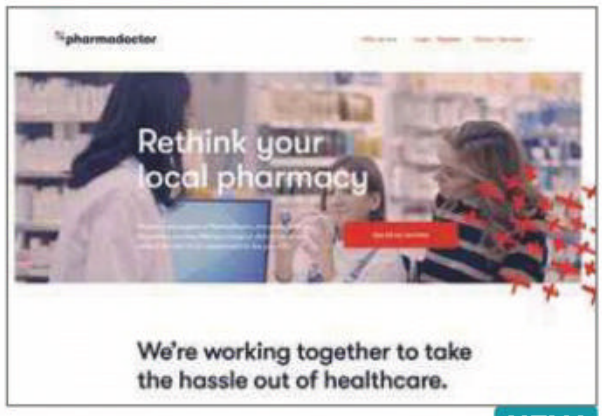
home.unicode.org

Emoji may be a modern form of communication, but until recently the website for Unicode – the not-for-profit organisation that governs emoji standards – was stuck in the Nineties. Thankfully, this redesign deserves a big smiley face rather than a great pile of poop. As well as explaining what Unicode is about, showcasing a selection of characters and bringing the latest news, it explains how to submit your own emoji proposal. Click the emoji link on the front page to see the selection criteria and technical information. You can even adopt a Unicode character.

Our rating ★★★☆☆

Tell us about your website via webuser@webuser.co.uk

Best New Websites



NEW

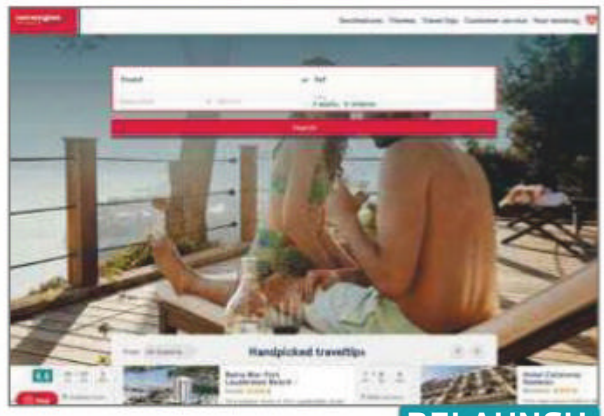
HEALTH

PharmaDoctor

bit.ly/pharma481

Not every ailment needs to be treated by a doctor, so if you're anxious about waiting times, check out this service, which puts you in touch with a local pharmacy. By selecting one of 50 clinical services ranging from acne and migraine to vaccinations, you can search for a chemist, read what they can provide and use the contact details to phone for an appointment (online booking is said to be on its way). With 7,800 pharmacists, you're sure to find one near you, but bear in mind that while the website is free to use, you will have to pay for treatment. Guidance prices are listed, and you can start a consultation online to save time.

Our rating ★★★☆☆



RELAUNCH

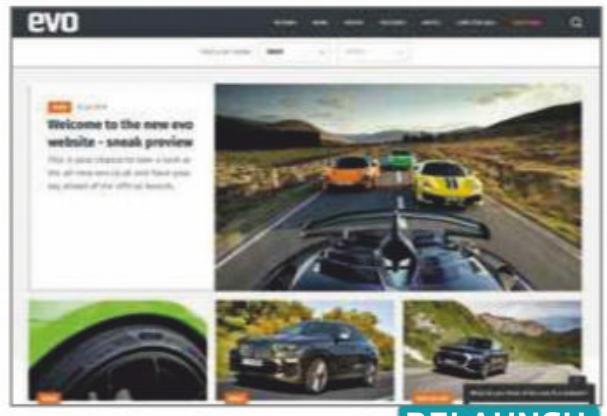
HOLIDAYS

Norwegian Holidays

www.norwegianholidays.com/uk

Low-cost airline Norwegian has relaunched its package holidays division in conjunction with TripX, making a few tweaks to its website. Now you can specify how many rooms you need and the number of people travelling when making your initial search. The site highlights holidays that may be of interest, complete with a suggested hotel, price and rating, which is more useful than a basic list of destinations. You can even select a theme, such as adult-only and all-inclusive. We particularly like the 'Travel tips' section, which suggests cheap deals based on your chosen month and length of stay.

Our rating ★★★★☆



RELAUNCH

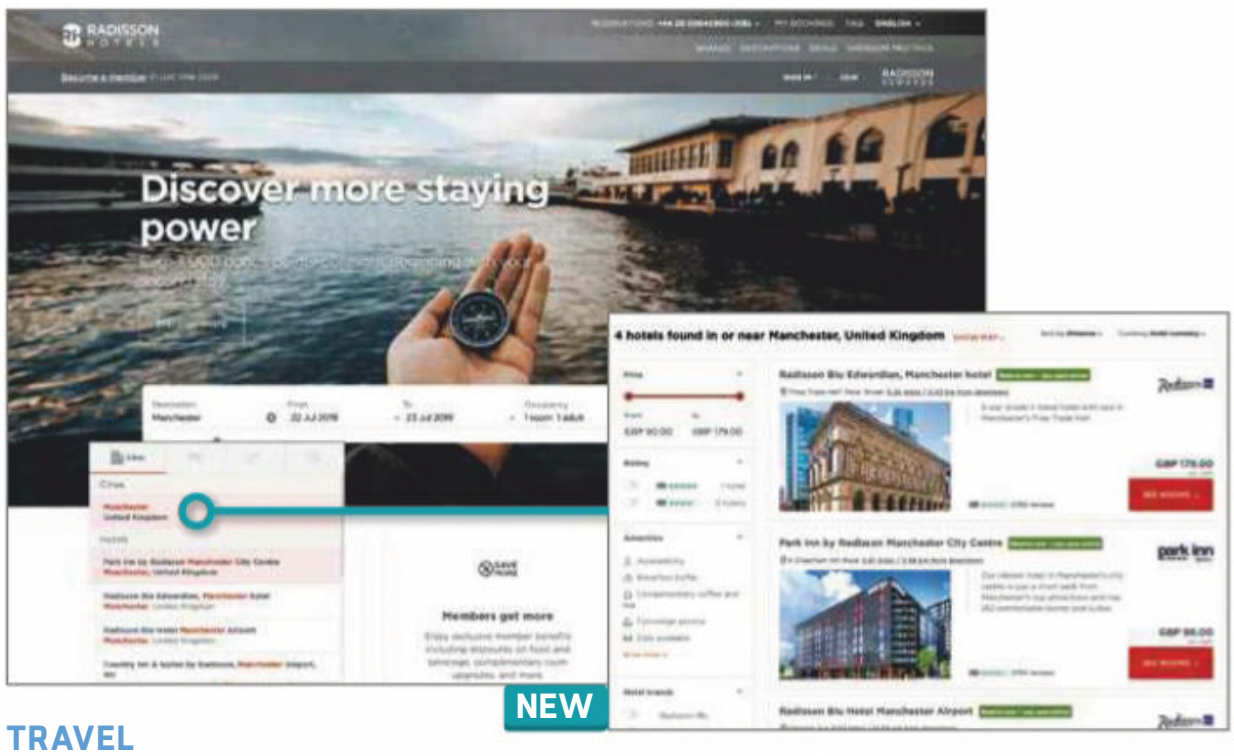
MOTORING

Evo

www.evo.co.uk

The motoring website Evo is working on a fresh new look, but visitors can take a sneak peek before the official launch. This means you can expect some teething problems, such as broken links and pages that are stuck firmly in the slow lane, but it's heading in the right direction. The homepage has more room for manoeuvre, with greater use of white space, clearer signposting of articles and less clutter. The sections are also better defined. The ability to find car reviews by make and model is great, and the option to sign up for an email newsletter is more prominent. You can leave feedback in an unintrusive pop-up window.

Our rating ★★★★☆



NEW

TRAVEL

Radisson Hotels

www.radissonhotels.com

Radisson has created a new online hub that covers all seven of its hotel brands. Enter a destination and dates, and the search engine immediately shows you a list of hotels in a drop-down menu before you've even clicked Search. The drop-down also lets you select hotels for specific airports and points of interest, with information on how far away they are. You can filter all the results, and entries include clear pricing, with the different brands displayed alongside a TripAdvisor rating and brief description. There's also a massive selection of deals, which the site helps you navigate by asking questions about the kind of trip you're after so you can find the right one.

Our rating ★★★★★

NEW

WATCHES

The Classic Watch Buyers Club

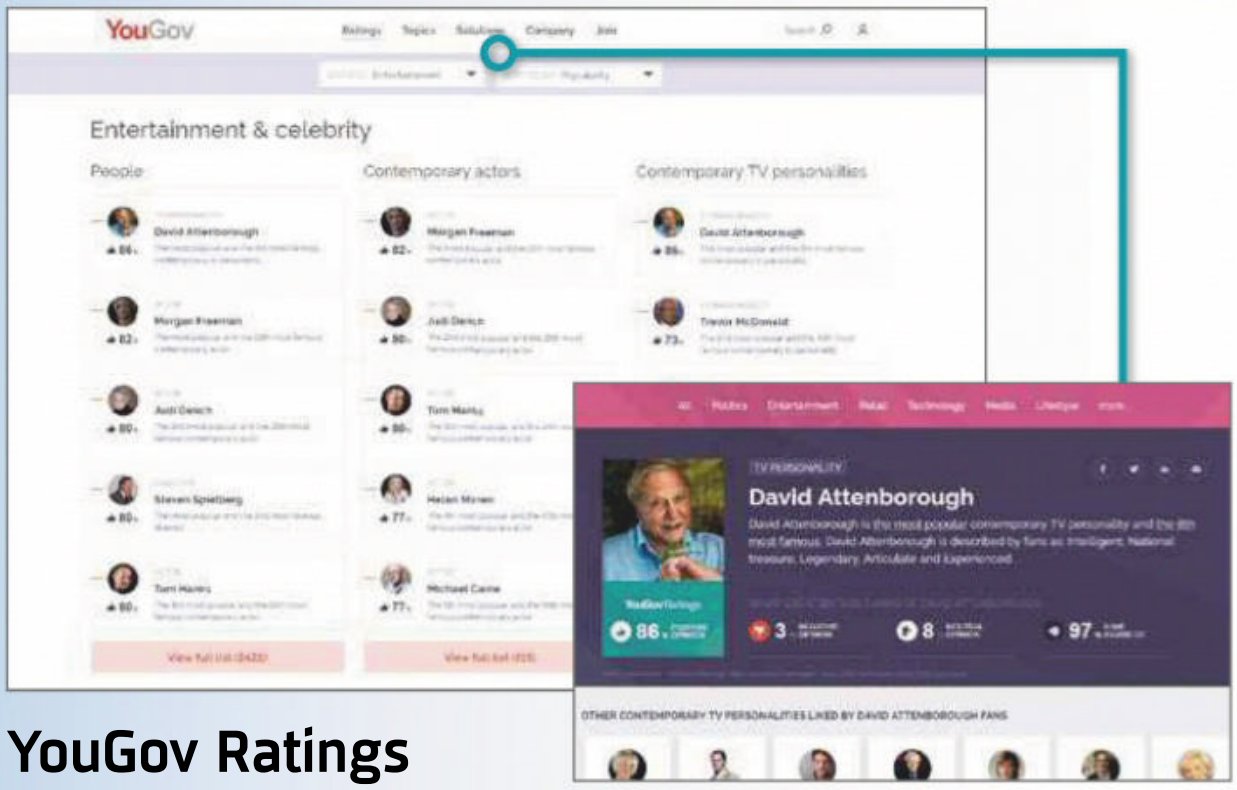
theclassicwatchbuyersclub.com

For some of us, the term 'classic watch' means an old digital Casio from the 1980s, but here you'll find high-end timepieces from the likes of Rolex, Omega and Cartier that sell for hundreds if not thousands of pounds. With that in mind, we feel the site could present them better. The descriptions are inconsistent, and some images are badly shot. Those selling or trading a watch could be better served, too – both pages are identical and lack useful information. Spending more time on the site's design would reap rewards.

Our rating ★★★☆☆

ESSENTIAL BOOKMARKS THIS ISSUE: 5 COMMUNITY SITES

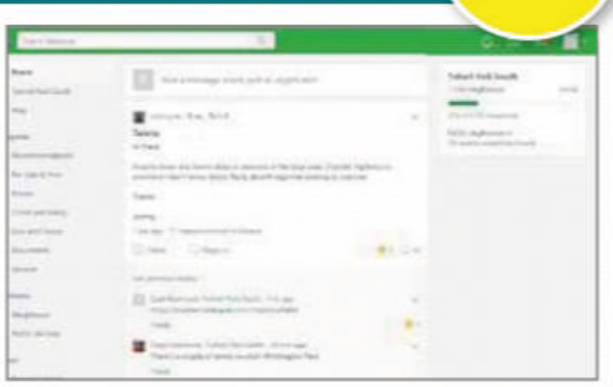
NEW!



YouGov Ratings

yougov.co.uk/ratings

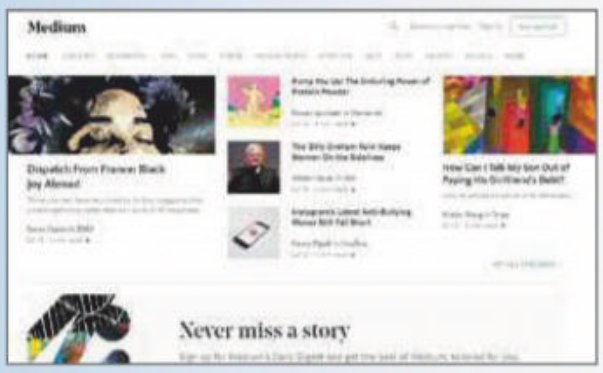
Who is the UK's favourite politician? Which model of phone do we love most? And what's our preferred social network? With YouGov's Ratings site, you can discover the answers to these questions and many more based on millions of responses from the British public. Select a category from options such as politics, entertainment, food, sport and technology to see instantly how popular someone or something is, across dozens of sub-categories. You can also sort by fame, to see what the YouGov community has most "heard of". Clicking an entry provides data about the age, gender and other 'likes' of the people who voted for it, and since the information is collected daily, Ratings is sure to be a site you'll return to regularly.



Nextdoor

nextdoor.co.uk

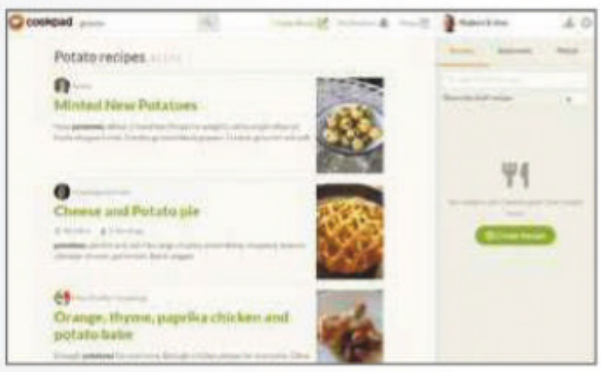
Whether you need a window cleaner, want to offload an old sofa or just fancy a gossip with your neighbours, this private social network connects you with people in your area, so you can request and share local information and advice, and advertise products and services, without having to speak to anyone face-to-face. Nextdoor's Facebook-style interface makes it easy to use, and there are three ways to verify your account: postcard, phone call or by granting access to your current location. Community moderators keep conversations clean, focused and spam-free, although just as in a real neighbourhood, you're bound to get the occasional grump!



Medium

medium.com

Finding interesting online articles that aren't driven by clickbait, advertising or news agendas is increasingly tricky, which makes Medium a breath of fresh air. This writing community for "people who have thoughtful things to say" publishes articles and opinion pieces on virtually any topic you can think of, which are reviewed by curators to ensure they meet Medium's editorial standards. Although content from some of the most popular authors and publications is locked behind a $5-a-month (£4) paywall, there's still plenty of great stuff you can read for free, and registering with the site lets you personalise your Medium homepage, follow specific writers and topics, and even publish and earn money from your own stories.



Cookpad

cookpad.com/uk

Cookpad is a tasty mix of Pinterest and BBC Food, giving foodies a place to share recipes, tips and photos. The site is based in Japan, but has offices around the world, and currently offers more than five million recipes (around 5,000 of which are from the UK) and attracts 100 million users. You can search the site by ingredient, meal type and cuisine to find a suitable dish; bookmark and print recipes with a single click; and post your own ideas for others to try. Users can post their experiences with each others' recipes, including photographic evidence, and Cookpad lets you track the number of times your recipes have been 'liked', saved and printed and by other people. There are also free apps for Android and iOS.

MeWe

mewe.com

If you like the idea of social media but baulk at the privacy issues involved, you'll be reassured that MeWe is built on "trust, control and love" rather than targeted ads and data harvesting. It's a lively, privacy-respecting place to connect with and make new friends. You can join open groups that span categories as diverse as Animals & Pets, Cyber Safety and Sustainability, or create your own, and use familiar features such as emoji reactions, but without the annoyance of ads. MeWe counts Sir Tim Berners-Lee among its board members and says it expects up to 100 million new members this year, so now's the perfect time to join.

Tell us about your favourite community sites via webuser@webuser.co.uk

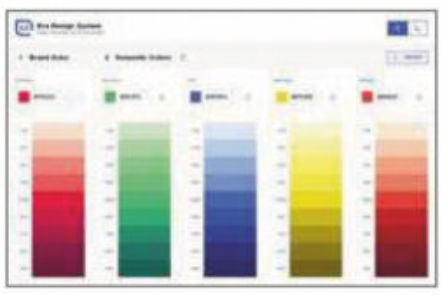
Build a Better Site

Specialist tips, top tools and practical help

Top Tips of the Fortnight

Choose colours that engage your visitors' emotions

You don't have to be a talented designer to build a website but complementary colour schemes certainly help to make a drab site more attractive. Before you roll out the colour wheel, take a look at Eva Design System's semantic colour generator (colors.eva.design). Instead of choosing colours based solely on their relationship to others, this gives you a range of colours designed to invoke emotions in your visitors.



Enter the hexadecimal code of your site's main colour and it returns suggestions to use to encourage success, information, warning and danger.

Play a game to learn CSS

CSS is used to make HTML documents look attractive but learning it can be tricky, particularly the different ways in which elements on a page can have CSS assigned to them. CSS Diner (flukeout.github.io) is a wonderfully entertaining game that helps reinforce how CSS achieves this. You'll see a table with plates of food displayed at the top of the page and, at the bottom, you have to type in the correct CSS code to isolate the flashing items. Tips and pre-made HTML code are provided to help, and you'll soon be learning without realising it.

Deal of the Fortnight

123 Reg (123-reg.co.uk) is charging just £1.20 for the first year of a range of domains, including '.com', '.uk', '.co.uk' and '.london'.

Web-building Helpdesk

Q **I love WordPress but I seem to have to carry out plugin and theme updates every time I visit my site. Is there some way to update them automatically?**

Oliver Phillips, via email

A The reason why this isn't built into WordPress is because updates can break your site and you don't want that happening while you're not looking. Consider minimising the update process by removing all themes and plugins that you aren't currently using.

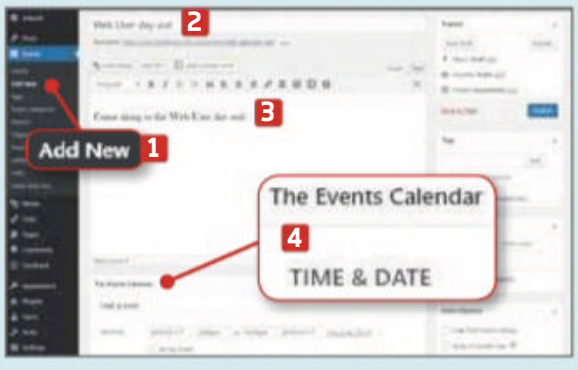
If you still want to update automatically, there are a few plugins available that can manage the process. Try Companion Auto Updater (bit.ly/caup481), which can be set to update both themes and plugins. Make sure you check your site regularly to ensure nothing is broken.

Andy Shaw, Technical & Reviews Editor

MINI WORKSHOP | Add an Events Calendar to your WordPress website

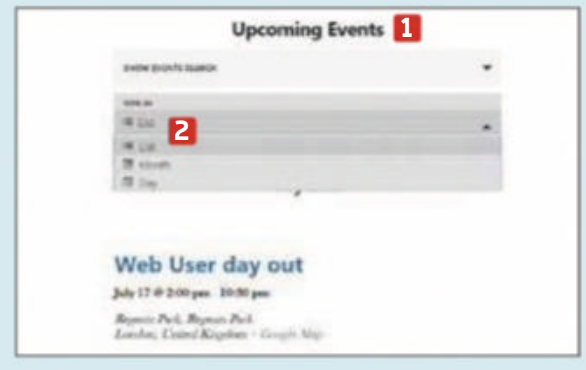
The Events Calendar: bit.ly/even481 | 10 mins | WordPress website

Many clubs and societies hold regular events, and this useful plugin makes it easy to add these to your group's WordPress website. Here's how to use it



1 Install the plugin in the usual way. An Events section is added to the menu with its own set of options. Adding a new event is similar to adding a new post: click the Add New option, 1 then add a title 2 and information about the event 3 in the boxes. Enter the date and time in the Events Calendar section. 4

2 Events can have their own categories, separate from the ones used in Posts and Pages. Click Event Categories 1 to add them. If you add special categories for Venues and Organizers to your event when you create it, 2 they'll be available to use on future events. Click the links to edit them further. 3



3 Your events are listed at www.yoursite.com/events. 1 Visitors can view them as a list or in a calendar style. 2 Each event has its own URL so you can link to individual events if you prefer. There's also a widget you can add to your homepage or sidebar, which you can configure from the Appearance, Widgets menu.

Email us your website building questions at webuser@webuser.co.uk

KEEP A LOW PROFILE.

SK630, SK650

The **SK630** and **SK650** Mechanical Keyboards are slim keyboards with all of the signature **Cooler Master** features like on-the-fly controls and RGB backlighting – also adding new Cherry MX Low Profile Switches.

A reduced travel and actuation distance with extra-flat keycaps means that you get all of the precision and durability of a mechanical keyboard. All of this within a minimalistic slim stylish keyboard.

Add in a refined brushed aluminium housing and understated LED ring, and you have a keyboard that looks as good as it performs.

What To Watch Online

Pick of the fortnight

NETFLIX

Get inside more criminals' heads in *Mindhunter* Series 2

From 16 August

Netflix confirmed Season 2 of its 1970s-set psycho-killer drama nearly two years ago, before the first season had even arrived in the UK. Executive producer Charlize Theron hinted in May that the second season would arrive this month. Finally in July, director David Fincher revealed during a podcast (bit.ly/fincher481) that eight new episodes would land on 16 August. Cancel your plans – this is a binge that's worth staying in for.

Mindhunter skips forward a couple of years from 1977 to 1979 for its second outing. The FBI's criminal profilers Holden Tench (Jonathan Groff, *Glee*), Bill Tench (Holt McCallany, *Fight Club*) and Wendy Carr (Anna Torv, *Fringe*) are thrust from their dingy basement onto the world stage, where they must tackle notorious cases including the Atlanta Child Murders and Charles Manson.

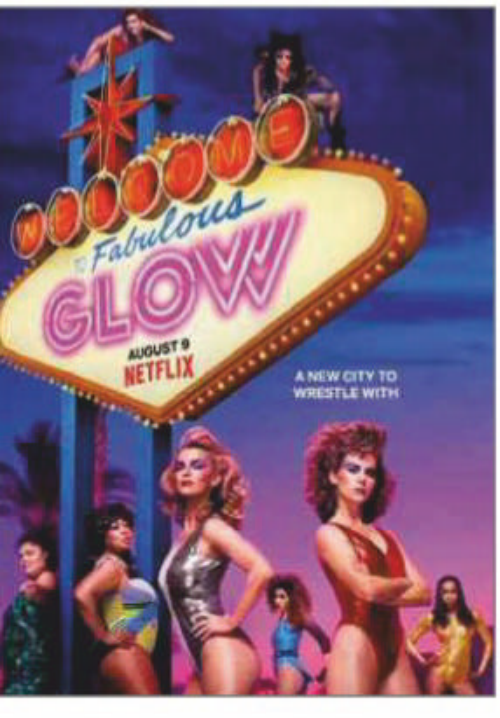
This gripping, intelligent show might never have existed without Theron, who gave her friend Fincher a copy of the *Mindhunter* book, a 1995 memoir by FBI criminal profiler John E Douglas (bit.ly/mindbook481).

Mindhunter Season 2 joins Season 1 on Netflix at bit.ly/mindhunter481, where you can also watch the latest trailer.

Head for Vegas in Season 3 of *GLOW*

From 9 August

Netflix's Gorgeous Ladies Of Wrestling are back for a third season of big hair and body slams – and this time, they're in Las Vegas. The women quickly realise that Sin City is more graft than glamour, and behind the scenes their personal lives are as complicated as ever.



Returning for a new bout are Alison Brie (*Mad Men*), Betty Gilpin (*Nurse Jackie*) and Sydelle Noel (*Black Panther*). Netflix unleashes 10 new episodes on 9 August at bit.ly/glow481, where you can also watch the latest trailer for free.

Stream the new Premier League season

From 9 August

Liverpool and Norwich kick off the 2019/20 season at 8pm on Friday 9 August on Sky Sports, which you can stream live and on-demand with a Now TV Sports Pass (£8.99 per day, £14.99 per week, £33.99 per month or £5.99 per month for mobile only, bit.ly/nowsport481).

Other key fixtures on Now TV include Tottenham v Aston Villa (5.30pm Saturday 10 August), Newcastle v Arsenal (2pm Sunday 11th) and Manchester United v Chelsea (4.30pm Sunday 11th). Find out more in the free Sky Sports app (bit.ly/skysports481).

BT Sport is showing West Ham v Manchester City (12.30pm Saturday 10th). To watch online you need to buy a £10-per-month BT Sport add-on, on top of a BT TV, Sky TV or TalkTalk TV subscription (www.bt.com/sport).

Amazon Prime Video is also getting in on the Premier League action, and will show 20 games this season, chiefly around Christmas.

Watch the second season of *Succession*

From 12 August

Season 1 of HBO's media conglomerate drama was lauded by streaming viewers as one of the best things on Now TV,

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

and Season 2 joins it from 12 August. The New York-set show follows the fortunes and fights of the super-rich Roy family, whose tough patriarch Logan (Brian Cox from *X-Men*) faces the prospect of handing his empire over to his dysfunctional kids, including Roman (Kieran Culkin, *Fargo*).

Stream new episodes weekly via Now TV at bit.ly/succession481, where Season 1 sticks around until December 2019. Watch HBO's official Season 2 trailer at bit.ly/successtrail481.

Watch Aisling Bea's new C4 sitcom *This Way Up*

From 8 August

Aisling Bea is a familar face on TV these days, with regular comedy gigs including *QI* and *Taskmaster* plus numerous acting credits. Now she's written her own Channel 4 sitcom, a decidedly post-*Fleabag* tale of sisterly love and the pursuit of happiness in this messy life.

This sharp six-parter will be available to stream as a box set via All 4 after the first episode airs on 8 August. Warm up with the official trailer at bit.ly/thiswayup481.

Bid farewell to Amazon's *Preacher*

From 9 August

It's the fourth and final season of Amazon's delightfully debauched tale of a possessed minister (Dominic Cooper) who teams up with his ex and a hard-drinking Irish vampire in search of God himself, who's gone AWOL.

Critics and audiences have loved the show, based on the comic books by Garth Ennis and Steve Dillon (bit.ly/comics481), but that hasn't been enough to save *Preacher*.

The new season joins Seasons 1-3 on 9 August on Amazon Prime Video at bit.ly/preacher481, and you can watch a Comic-Con trailer at bit.ly/preachtrail481.

BritBox to launch in the UK by December

BBC and ITV have confirmed that their joint BritBox streaming service will launch in the UK by the end of December. Subscriptions will cost £5.99 per month for HD streaming, and could be available in the UK as soon as October.

At launch, the service will offer box sets of BBC and ITV programmes, including *Broadchurch*, *Gentleman Jack*, *Happy Valley*, *Les Miserables* and *The Office*. Original BritBox content will follow in the new year.

The news came just a couple of weeks after Ofcom provisionally approved the BBC's plans to extend the iPlayer's default expiry date for programmes to one year. BritBox will offer a much wider range of archive shows than the iPlayer, however – especially if other public service broadcasters such as Channel 4 join the service.

In a statement, BritBox confirmed that the £5.99 fee will cover HD streaming on multiple devices. That compares well with Netflix (£8.99 for HD on two screens), Amazon (£5.99 for three screens) and Now TV (£7.99 for six screens, two of which can play simultaneously).

In case you missed it...

HBO's *Euphoria*, currently streaming on Now TV, is described as a 'teen drama' but its themes of violence, sex and drugs make for a dark, intense watch. See the trailer at www.hbo.com/euphoria.

We also recommend *Fosse/Verdon*, a major FX drama starring Sam Rockwell (*Moon*) and Michelle Williams (*Manchester By the Sea*) as legendary choreographer Bob Fosse and his muse Gwen Verdon. It will be available on the iPlayer by the time you read this.

Also on the iPlayer is a second series of sitcom *Hold the Sunset*, with John Cleese and Alison Steadman (bit.ly/sunset481), and series 16 of *Who Do You Think You Are* at bit.ly/who481. Kate Winslet, Sharon Osbourne and Paul Merton feature over the coming weeks.

Group Test

We test and compare the latest products

Home security cameras

We test the latest security cameras that come with a wealth of features to keep an eye on your home while you're away

Nothing provides more peace of mind when you're away from home than being able to pick up your phone and have a look at what's happening in your front room. Home security cameras are becoming increasingly sophisticated and all eight of the models we've reviewed in this group test are capable of streaming visuals from a camera at home to the web. They can also alert you if they detect anything untoward going on, and some have lots of handy extra features you can read about below. Prices vary dramatically, from £19.99 to nearly £300, so we've compared them all to see whether the top-of-the-range cameras are really worth the extra cost.

HOW WE TESTED

We set up each camera to see how easy it was to install. We then explored the various tools and options available in the cameras, the software and the online services that come with them. The price, value for money and overall ease of use were also taken into account before coming up with our final verdict.

Google Nest Cam IQ Outdoor | £279 | Buy from Google: bit.ly/nest481

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

VERDICT ★★★★★

This outdoor camera from Nest is the best-quality external security camera we've tested. Setting it up can be a bit complicated and will require some drilling if you want to maximise its effectiveness. It's also expensive, even before you add on a subscription service for accessing the footage. However, if you're serious about your home security, we think it's well worth the money. The subscription service is the cheapest it's ever been and the camera itself is a cracking device that captures clear, sharp video footage.

This new outdoor model from Nest is powered by a USB cable, which you can run to the device externally or, for extra security, pass straight to the camera from inside your house, if you're prepared to drill a hole through your wall into the back of the mount. Either way, installation isn't simple but it's more secure than battery-powered models.

The camera uses a 4K sensor but only produces video at 1080p. However, the video quality is the best in this group, and it uses its extra pixels for homing in on suspicious activity using an enhanced 4x zoom. Both the original and zoomed picture are saved, should you be unfortunate enough to need them for evidence.

At night, the camera uses infrared LED lights to invisibly illuminate the area around it so the camera can pick up any activity. There's a reduction in visual range and the image isn't as sharp as in daylight, but it's still better quality than on the other cameras we reviewed.

To get the most from the camera, you need a subscription, which lets you control motion zones and uses face recognition to spot friends and regular visitors. There are several tiers of subscription but the basic paid-for level of £4 per month (or £40 per year) provides access to five days of continuous recording, which means if you go on a longer holiday, for example, you'll need to check in and see whether you have any footage that you need to save elsewhere.

Motion detection was spot on, avoiding false positives and accurately detecting people. It's the best cloud service we tested, making it easy to scroll through footage or jump between alerts if you're looking for specifics. There is a free subscription but it only saves three hours of historical footage to the web.

Arlo Pro 2 | £274.95 |

Buy from Amazon: bit.ly/arlo481

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

The Pro 2 isn't the most expensive Arlo camera (that honour goes to the 4K Arlo Ultra) but this pack still only consists of just one camera and a base station. However, although it's pricey, it comes with lots of useful features.

The camera streams 1080p video all day, sends alerts if triggered by motion or sound, and you can set it to sound a 100-decibel siren located in the base station. You can start, stop and schedule the sending of alerts to fit in with your day.

The camera can be located outdoors, will capture footage at night and includes 1GB (or seven days) of free cloud storage, supporting up to five cameras, though more time and camera capacity can be purchased if required. The camera is battery-powered but, by our estimation, only needs charging every six weeks or so. If you prefer, you can permanently power it via USB. The camera connects to a simple base via a magnet so it's not safe from tampering, however.

VERDICT ★★★★☆

The Arlo Pro 2 works brilliantly and is a flexible option you can locate indoors or out. Footage is clear and sharp, and the free online storage is enough to get most people started. It's an expensive option, requiring a base station to wirelessly connect cameras to, but it's almost as good as the Nest and costs less.

Neos SmartCam | £19.99 |

Buy from Neos: shop.neos.co.uk

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

At the other end of the price range from our Gold and Silver Award-winners is this £19.99 model from Neos, which shoots 1080p video (though only at 15 frames per second) and comes with free cloud storage. The hardware is so cheap because it doesn't need its own hub and is only suitable for indoor use. However, it does have night vision for recording in the dark, and a built-in microphone so you can hear what's going on.

The free cloud storage is limited. When activated, it records a 12-second clip and uploads it. However, it won't then record anything else for five minutes, which is a significant restriction, with no option to invest in a more robust service. Clips are stored online for 14 days.

Alternatively, there is an SD card slot that can store footage so you can record continuously, but you can't access it from the web.

VERDICT ★★★★☆

If you can live with its significant limitations, you could put a camera from this range in every room of your house and still not have paid as much as some rivals are charging for a single unit. However, the free online cloud storage is limited and the hardware is basic.

BEST OF THE REST

The **D-Link DCS-2802KT** (**£295.99** for a twin pack | **bit.ly/dlink481** | ★★★★☆) has a similar design to the Arlo, with a magnetic mount, rechargeable battery and a requirement to wirelessly connect to a base station. However, this D-Link option is more affordable, providing a twin-camera kit for the price of a single Arlo starter pack. There are limitations, though, because it doesn't provide continuous footage – cloud recording is only activated when an event is detected. Also, there's no option to power it from a wall socket.

TP-Link has a simpler indoor-only alternative in the **Kasa Cam KC120** (**£75.99** | **bit.ly/tpl481** | ★★★★☆). It connects to a standard Wi-Fi connection (including support for 802.11ac) without the need for extra hardware. You get two days of cloud storage and clips are saved when activated by motion or sound. By default, it records in 720p but it can be set to 1080p if you prefer.

The downside of the **BT Smart Home Cam** (**£49.99** | **bit.ly/btshc481** | ★★★☆☆) is the cloud storage – it only saves motion-detected screenshots, not video. This has dramatically saved on the price of the unit without it having to compromise on physical features, but the cloud services offered elsewhere are so good, you're sacrificing a lot for that drop in price.

If looks were everything the **Hive View** (**£179** | **bit.ly/hive481** | ★★★☆☆) would be on course for a Gold Award. However, it's short on features, didn't perform well in our motion-detection test, and took a long time for the cloud service to notify us when security events were triggered.

Finally, we had high hopes that Ring, the people behind the video doorbells, might make a good security camera, but the **Stick Up Cam** (**£179** | **bit.ly/rsuc481** | ★★★☆☆) is disappointing. The hardware is good but the free cloud service is limited to saving still images. Video costs an extra £25 per year.

	Google Nest Cam IQ Outdoor	Arlo Pro 2	Neos SmartCam	D-Link DCS-2802KT	TP-Link Kasa Cam KC120
WEBSITE	store.google.com	www.arlo.com	neos.co.uk	eu.dlink.com	www.tp-link.com
PRICE	£279	£274.95	£19.99	£295.99	£75.99
BUY FROM	Google: bit.ly/nest481	Amazon: bit.ly/arlo481	Neos: shop.neos.co.uk	Amazon: bit.ly/dlink481	Amazon: bit.ly/tpl481
INDOOR/OUTDOOR	Outdoor	Both	Indoor	Both	Indoor
VIDEO RESOLUTION	1080p (4K sensor)	1080p	1080p	1080p	1080p
LENS	130°	130°	110°	140°	130°
NETWORKING	802.11ac	802.11n	802.11n	802.11n	802.11ac
LOCAL STORAGE	✗	USB	microSD	microSD, USB	✗
FREE CLOUD STORAGE	✓ (3 hours)	✓ (7 days)	✓ (14 days)	✓ (14 days for 1 year, then 24 hours)	✓ (2 days)
MOTION DETECTION	✓	✓	✓	✓	✓
AUDIO DETECTION	✓	✓	✓	✓	✓
NIGHT VISION	✓	✓	✓	✓	✓
DIMENSIONS	128 x 93 x 93mm	79 x 71 x 49mm	56 x 50 x 50mm	150 x 134 x 65mm	137 x 79 x 79mm
WARRANTY	One-year return-to-base	One-year return-to-base	One-year return-to-base	Five-years return-to-base	One-year return-to-base

OUR VERDICT

Google's Nest has secured the Gold Award in this test, with its Cam IQ Outdoor. It's not the cheapest camera, or the easiest to set up, but it's the most secure and has the best features. If you need more than one camera, however, and are on a budget, this isn't the right device to choose.

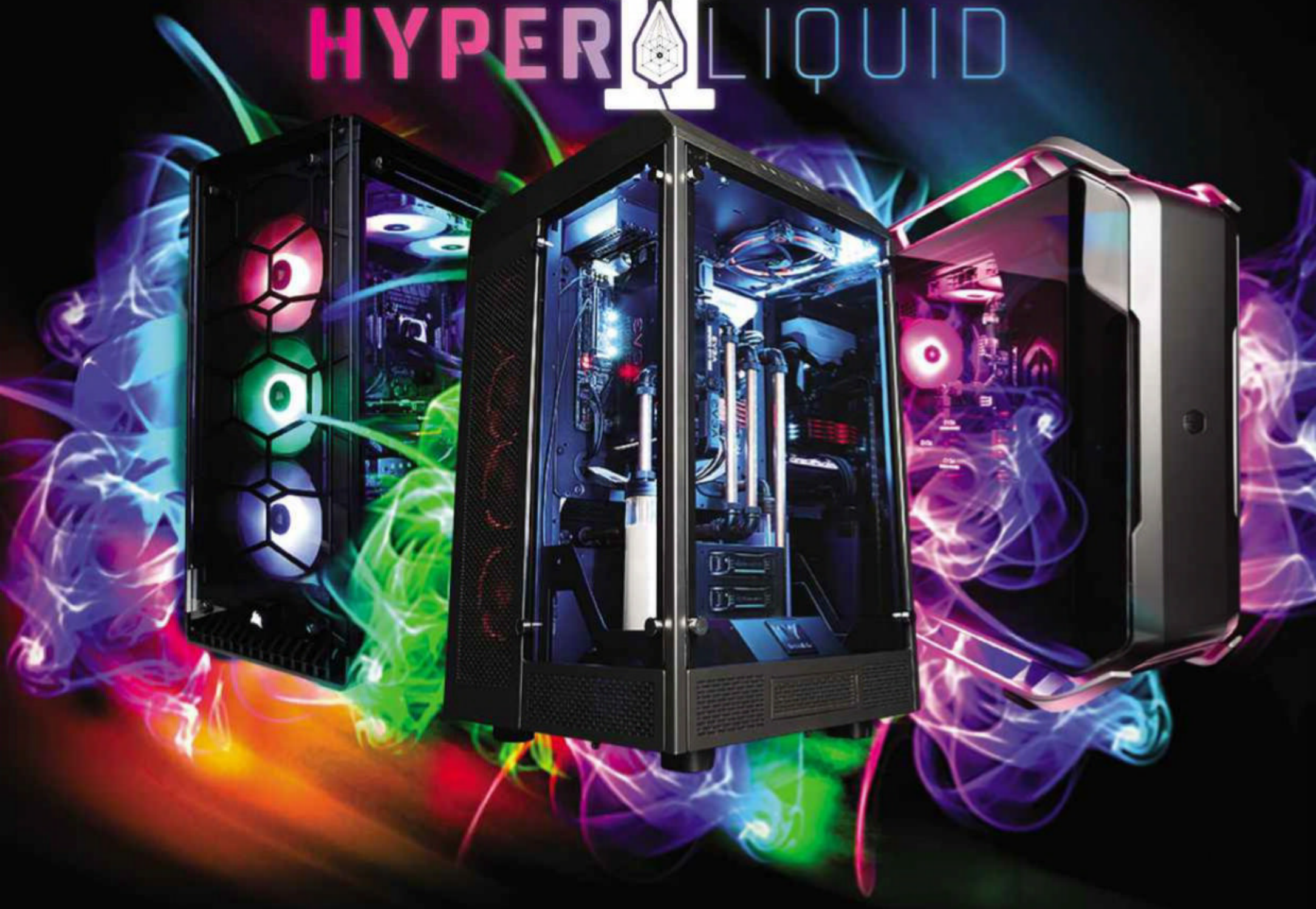
We awarded the second-place Silver Award to the Arlo Pro 2. This is more flexible than the Nest, able to be positioned inside or out, and has clear and sharp footage you can access online for seven days.

The Bronze Award-winning Neos SmartCam is from the more affordable end of the price range, so you could easily fill your house with these cameras for the price of a Nest or an Arlo. However, the cameras are indoor only, and don't have such sophisticated hardware or cloud-based tools.

Get £20 off using code CS20 at the checkout

CYBERPOWERPC

HYPER LIQUID



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Web User's Best Buys

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

HARDWARE, SOFTWARE & SERVICES

SECURITY CAMERA

Google Nest Cam IQ Outdoor

£279 from bit.ly/nest481
Tested: Issue 481

This is the best-quality external security camera we've tested, capable of capturing clear, sharp video footage. It takes a bit of setting up and is expensive, but it's worth paying for if you're serious about your home security.

KEY SPECS

Outdoor camera ■ 1080p video resolution ■ 130-degree lens ■ Motion and audio detection ■ Night vision ■ 802.11ac Wi-Fi ■ 128 x 93 x 93mm ■ Three hours of free cloud storage ■ One-year return-to-base warranty

INKJET PRINTER

Canon Pixma TS6250

£114.36 from bit.ly/cango479
Tested: Issue 479

This multifunction printer looks smart and is easy to use, whether you're printing from a PC, mobile device or its own touchscreen. With great results and acceptable running costs, it's easy to recommend.

KEY SPECS

4,800 x 1,200dpi print resolution ■ 2,400 x 1,200dpi scan resolution ■ 200-sheet A4 paper capacity ■ Double-sided printing ■ 7.5in colour touchscreen ■ 802.11n Wi-Fi ■ 372 x 315 x 139mm ■ 6.2kg ■ One-year return-to-base warranty

MINI PC

ASRock DeskMini 310

£668.70 from bit.ly/asro477
Tested: Issue 477

The performance of this diminutive PC comes remarkably close to a full-size system, once you've paid for and installed its components. It's compact, quiet and runs Windows well.

KEY SPECS

Intel Core i5-8400 processor ■ 250GB SSD ■ 16GB memory ■ Intel UHD Graphics 630 card ■ 1 x USB Type-C, 2 x USB 3.1, 1 x USB 2 ports ■ 802.11ac Wi-Fi, Gigabit Ethernet ■ 158 x 155 x 80mm ■ 1.87kg ■ One-year return-to-base warranty

GRAPHICS CARD

Asus ROG Strix RX 570 OC

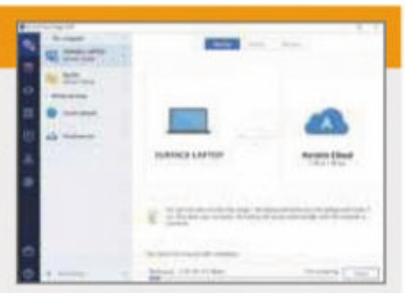
£189.99 from bit.ly/asusbox475
Tested: Issue 475

Asus's twin-fan graphics card gets the balance perfectly right. It comfortably plays games that are designed to push a graphics-processing unit to the limit, and for the price it kicks cards with similar specifications right out of the game.

KEY SPECS

AMD Radeon RX 570 graphics processor ■ 2,048 GPU cores ■ 1,300MHz clock speed ■ 4GB memory ■ 1 x DisplayPort, 2 x DVI, 1 x HDMI outputs ■ 200W power ■ 240mm ■ Two-year repair-and-replace warranty

BACKUP SOFTWARE



Acronis True Image 2019

£35 from bit.ly/acro473
Tested: Issue 473

Acronis True Image is a versatile backup tool that does everything from cloud storage to disaster recovery. It's not cheap compared with rival software, but it's flexible and simple to control, and should cover all your backup needs.

KEY FEATURES

Windows, macOS, Android, iOS ■ Local backup ■ Disc-image backup ■ Restore from the web ■ Create disaster recovery ■ AES-256 encryption ■ Continuous, daily, weekly or monthly backups ■ Multiple backup sets

SMARTPHONE

Moto G7 Power

£179.99 from bit.ly/pow472
Tested: Issue 472

Battery life is at the heart of what we love and hate about our phones, and the Moto G7 Power lasted an incredible 26 hours and 22 minutes in our tests. Its specs and price are also great.

KEY SPECS

Octa-core 1.8GHz processor ■ 64GB storage ■ 4GB RAM ■ 6.2in, 720 x 1,570-pixel screen ■ 12-megapixel rear camera, 8-megapixel front camera ■ 5,000mAh battery ■ 159.4 x 76 x 9.3mm ■ 193g ■ One-year return-to-base warranty

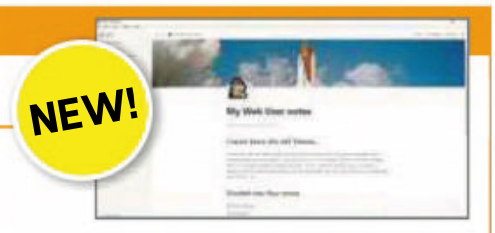
All prices correct at time of review

Gold Award winners

The best from our software tests

NOTE-TAKING TOOL

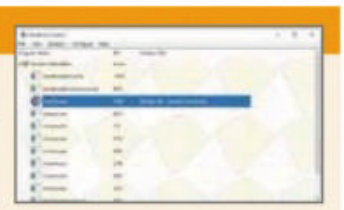
Notion



Free from www.notion.so
Tested: Issue 480
Notion lets you keep and organise all the thoughts cascading through your mind, no matter what device you're using. It has every feature you'll ever need, and it's free for personal use.

SANDBOX SOFTWARE

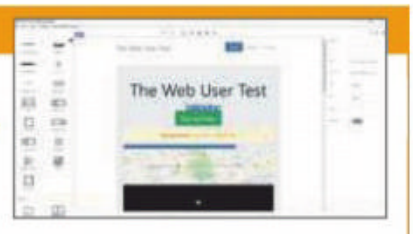
Sandboxie



Free from www.sandboxie.com
Tested: Issue 479
If you can get past the dated interface and upgrade nags, Sandboxie is the most thorough sandboxing tool we've seen for running programs in a fenced-off environment.

WEB-DESIGN TOOL

Basic WebPage Builder



Free from bit.ly/bwpb478
Tested: Issue 478
Basic WebPage Builder is ideal for budding but inexperienced web designers. Its impressive range of elements will fulfil most basic needs, with no HTML knowledge required.

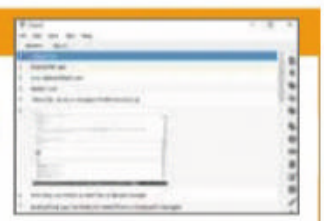
PDF EDITOR

Apowersoft Online PDF Editor

Free from bit.ly/apow477
Tested: Issue 477
We were gobsmacked by how much PDF content we were able to edit using this excellent free tool. It offers several advanced features that genuinely impressed us.

CLIPBOARD MANAGER

CopyQ



Free from bit.ly/copyq476
Tested: Issue 476
Intuitively designed and undemanding, CopyQ delivers everything you need from a clipboard manager. It has no trouble with text, images or anything else you throw at it.

TO-DO LIST TOOL

Todoist

Free from www.todoist.com
Tested: Issue 475
Todoist has all the tools you need for managing your daily tasks, wrapped up in an attractive interface. It works well across all phones, computers and other connected devices.

WebUser

BACK ISSUES DISC 2018

Our **2018 Back Issues Disc** containing all 26 issues from last year is now on sale from Amazon

For more information, visit
bit.ly/wudisc18
or search for 'webuser disc'

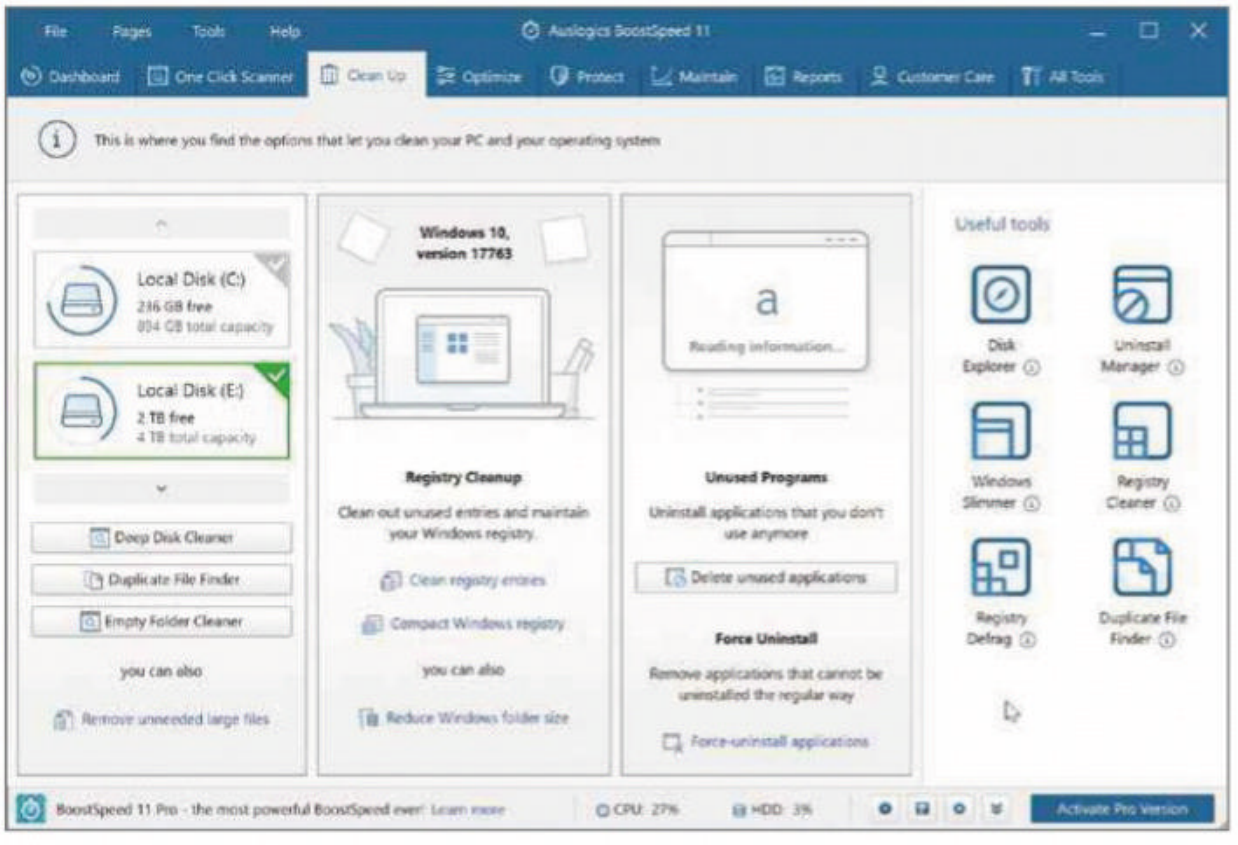
You can still buy our 2014-2017 Back Issues Discs, search for 'webuser disc' on Amazon

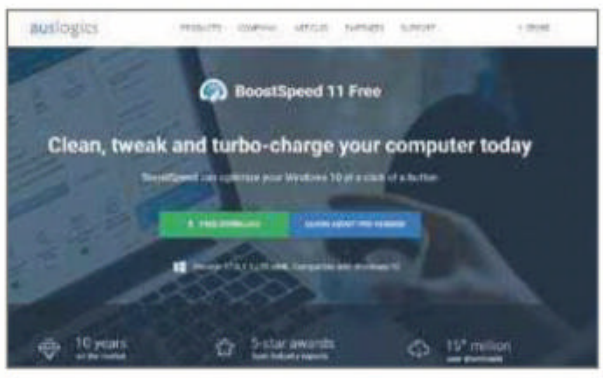
Best Free Software

SYSTEM OPTIMISER

Auslogics BoostSpeed 11 Free

bit.ly/boost481
Min requirements: Windows 7/8.1/10
File size: 24.4MB





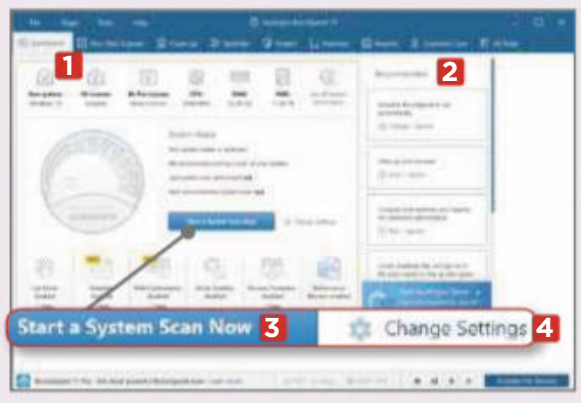
modern, with tabs along the top for the Dashboard, the One Click Scanner and the Clean Up, Optimise, Protect and Maintain modules. The Clean Up tool can remove junk, find and remove duplicate files and empty folders, clean the Registry and uninstall programs you don't use. A new addition lets you force stubborn software to uninstall, which can come in very handy.

You can defrag your drives from the Optimise tab, and remove traces of your activity – both online and off – under Protect. The All Tools tab in the top-right corner gives you access to a wide range of Auslogics system tools.

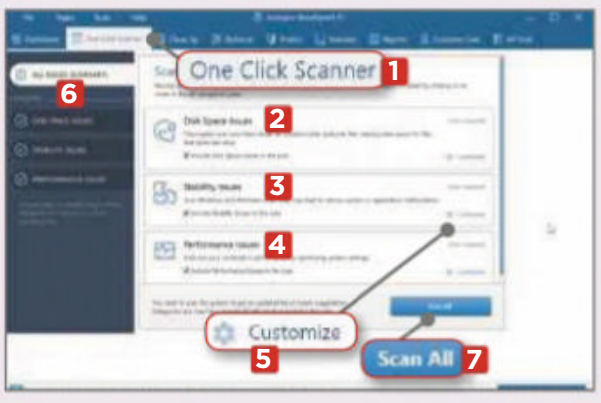
Another new feature in this version of BoostSpeed is the intriguing Cat Mode, which can detect when a cat (or other small animal, presumably) is walking across your keyboard, and prevents anything bad happening on your PC. You can choose how long your system should be idle before this mode kicks in.

If you require additional features, you can upgrade to the Pro edition for £38.21 a year, although discounts can often be found online.

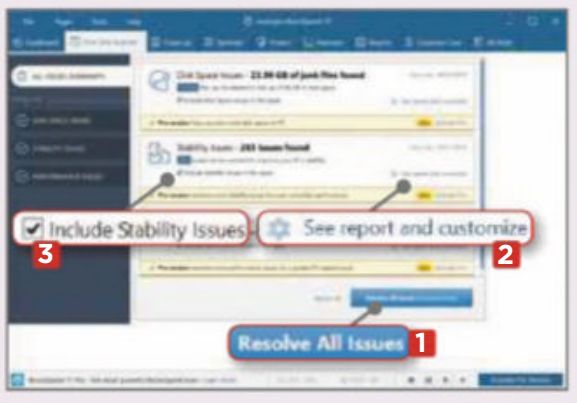
MINI WORKSHOP | Speed up your PC using BoostSpeed 11 Free



1 The Dashboard provides basic information about your PC, such as the operating system, CPU and RAM. 1 There are some recommended actions in a sidebar on the right, 2 or you can start a system scan by clicking the blue button in the centre. 3 Clicking the 'Change settings' link 4 lets you configure the software.

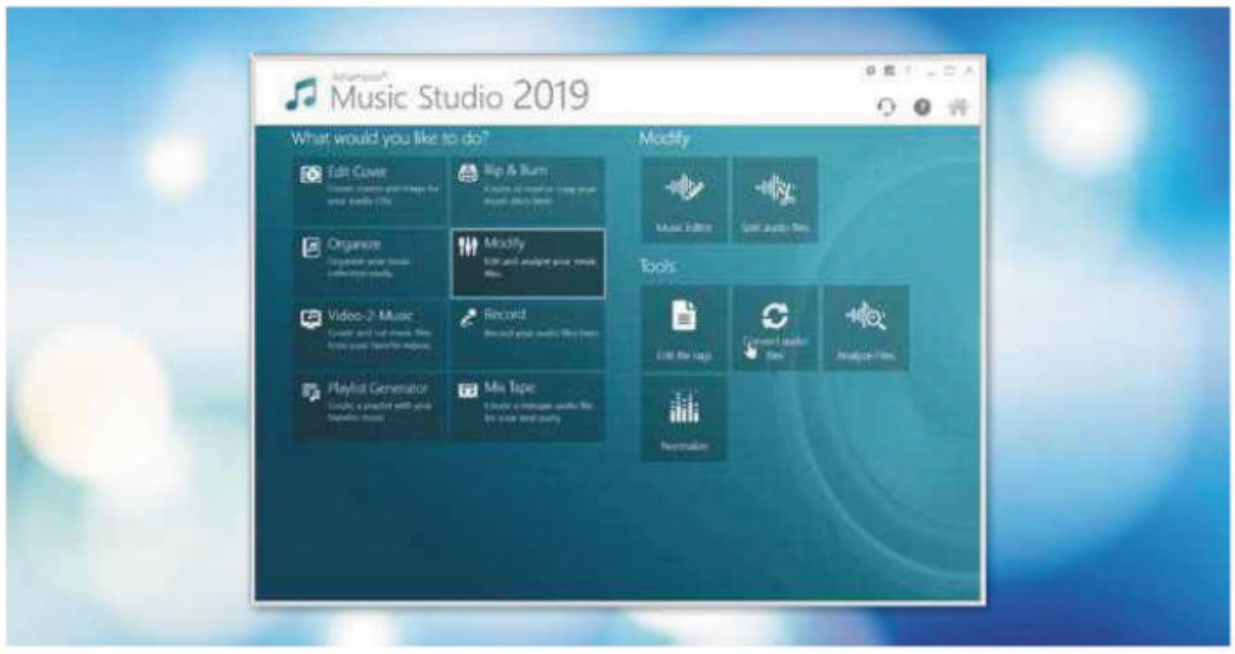


2 The One Click Scanner 1 lets you search for disk space issues, 2 stability problems 3 and performance bottlenecks. 4 You can deselect any of these or customise each one. 5 Clicking a category on the left 6 also opens the settings for it. Click Scan All 7 to begin the process.



3 You can pause or stop the scan at any time. Once it's finished, you can either allow the software to resolve any issues it has found (which probably isn't wise) 1 or view the report for each category and customise the cleanup actions. 2 You can also deselect any category you don't want to include in the cleanup. 3

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



AUDIO SOFTWARE

Ashampoo Music Studio 2019

bit.ly/mstudio481

Min requirements: Windows 7/8.1/10 **File size:** 44.8MB

Ashampoo Music Studio 2019 was originally priced at $29.99 but is now free, although you need to create an account to use it. The software lets you rip, edit, burn and organise your music, design CD covers, generate playlists, make mix tapes and rename songs automatically. It can also extract audio tracks from videos. Its interface is easy to use, with all the options available from a single screen.

Look out for a workshop on Ashampoo Music Studio 2019 in our next issue.

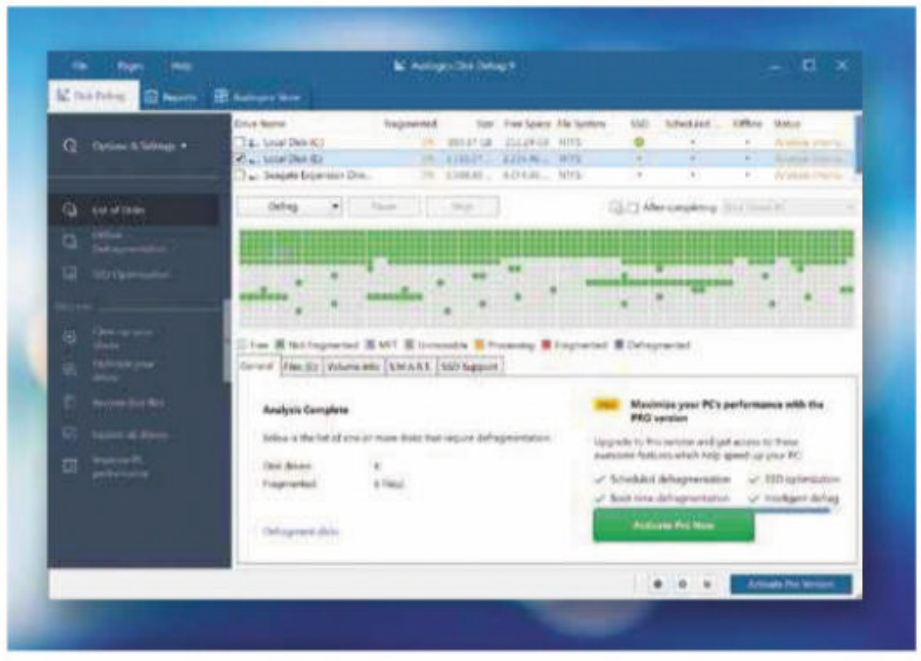
New Windows 10 App

Notepads – Beta

bit.ly/npads481

File size: 32.43MB

Most people are perfectly happy with Windows' built-in Notepad tool, but if you want a more useful, modern alternative, give Notepads a try. This beta app's design fits in well with Windows 10, and its use of tabs lets you work on multiple documents with ease. It's fast and responsive, and even offers handwriting support.



DISK DEFRAGMENTER

Disk Defrag 9 Free

bit.ly/defrag481

Min requirements: Windows 7/8.1/10 **File size:** 14.7MB

This speedy alternative to the Windows disk-defragging utility can consolidate free space, list fragmented files, analyse drives, folders or single files and defrag them. You'll need to upgrade to the Pro version for £21.21 if you want to optimise an SSD. The software can check for errors, wipe free disk space and set a defrag priority (low, normal or high). This release gains a new interface and speeds up the defragmentation process.

DESKTOP EFFECT

OK.It's.Raining.Men

bit.ly/rain481

Min requirements: Windows 7/8.1/10 **File size:** 106KB

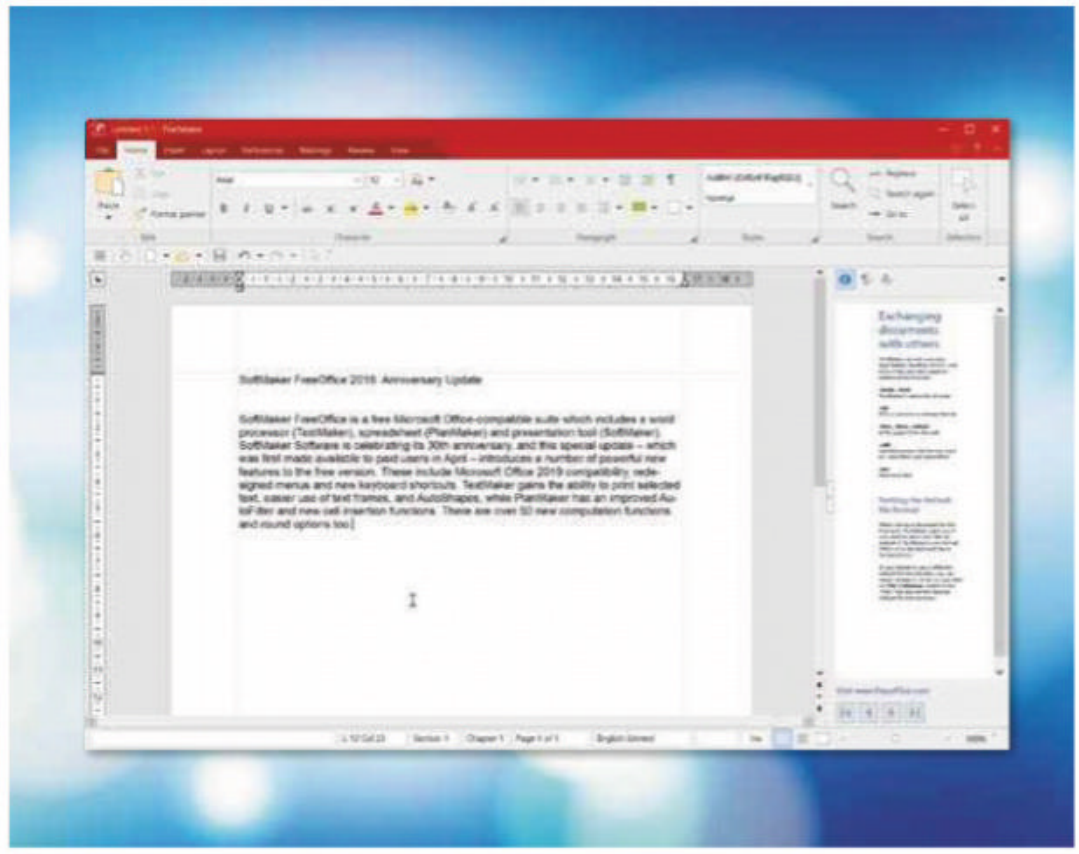
Hallelujah! It's not raining men, just water. This tiny program adds a raindrop effect to your Windows desktop. You can adjust various settings, such as the transparency of the drops, render quality, type (mouse drops, desktop drops or both), performance, intensity, size and length. Any changes you make happen immediately, and you can end the rain at any time by clicking the Disable box. It doesn't serve any useful purpose, but it's a bit of fun.

OFFICE SUITE

SoftMaker FreeOffice 2018: Anniversary Update

www.freeoffice.com

Min requirements: Windows 7/8.1/10, macOS or Linux **File size:** 114MB



This free Microsoft Office-compatible suite includes a word processor (TextMaker), spreadsheet (PlanMaker) and presentation tool (Presentations). SoftMaker is celebrating its 30th anniversary, and this special update – which was made available to paying customers in April – adds several powerful new features to the free version, including Microsoft Office 2019 compatibility, redesigned menus and keyboard shortcuts. TextMaker now lets you print selected text, and makes text frames and AutoShapes easier to use, while PlanMaker has an improved AutoFilter and new cell insertion functions. There are over 50 new computation functions and rounding options, too.

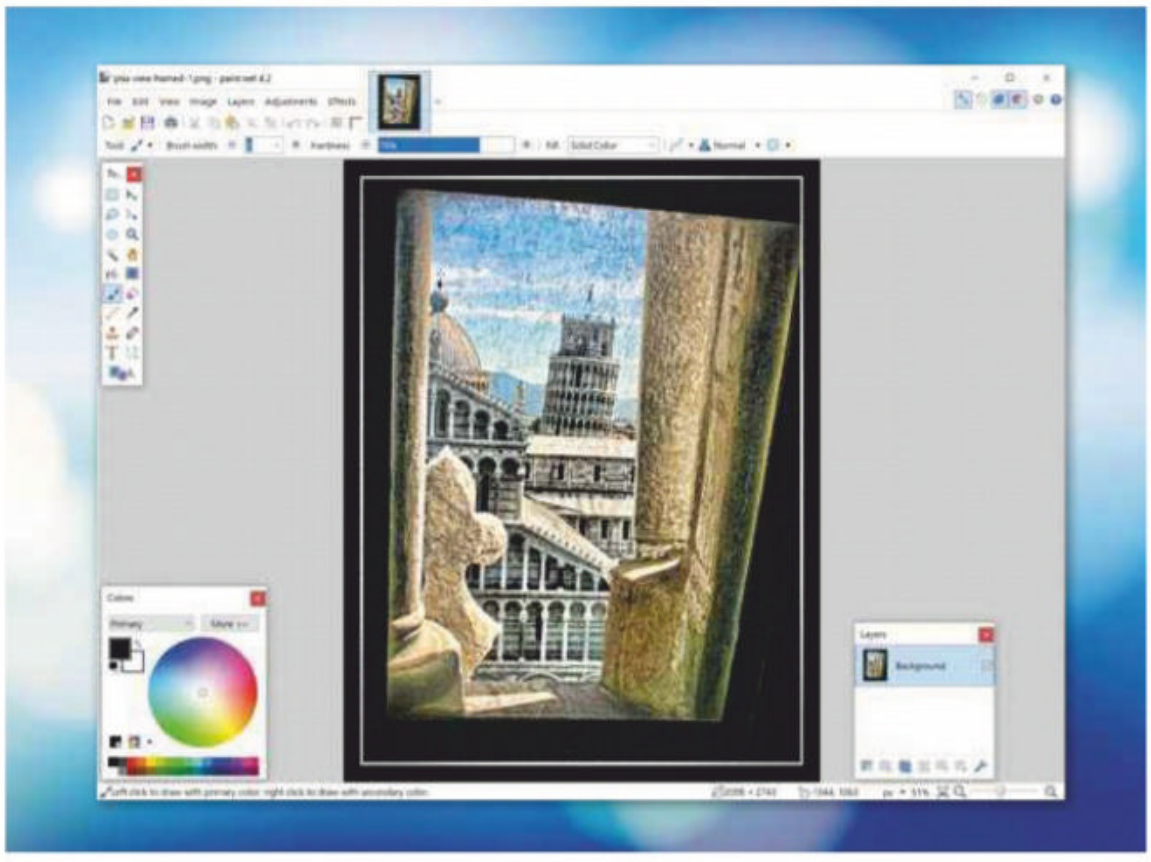


IMAGE EDITOR

Paint.net 4.2

getpaint.net

Min requirements: Windows 7/8.1/10
File size: 8.7MB

Paint.net famously started life as a simple replacement for Windows Paint, but now it's one of the best free drawing tools and image editors around. While the version number might suggest that this is just an incremental release, it's actually a fairly major update that introduces support for the HEIC file format on PCs running Windows 10 version 1809 and newer (you also need to purchase Microsoft's HEVC Video Extensions for $1 from bit.ly/hevc481).

Other changes in Paint.net 4.2 include new layer keyboard shortcuts, better performance when handling very large images and the ability to save PNG images as "interlaced".

PROGRAM LAUNCHER

Executor

www.executor.dk

Min requirements: Windows 7/8.1/10
File size: 2.1MB

After 12 years of beta releases, Executor has finally reached the version 1.0 milestone. The software makes programs, documents, files, folders and websites much easier to find and open. It also lets you use keywords to lock your computer and shut it down, turn off the monitor and mute the sound. It can manage your clipboard history, show all running applications, search your activity history using wildcards, perform calculations, send emails, sound an alarm and much more.

When you first launch Executor, the wizard offers you a choice of skin styles and interface sizes, and allows you to specify your usage needs, search types and other options.

GAME

Zeke's Peak

bit.ly/zeke481

Min requirements: Windows 7/8.1/10
File size: 4MB

The latest release from prolific games remaker Crozza is an update of a pub game originally called Ice Cold Beer. The aim is to roll a ball into the illuminated hole by moving a metal bar up and down, while avoiding all the other holes. It's surprisingly tricky and very addictive.

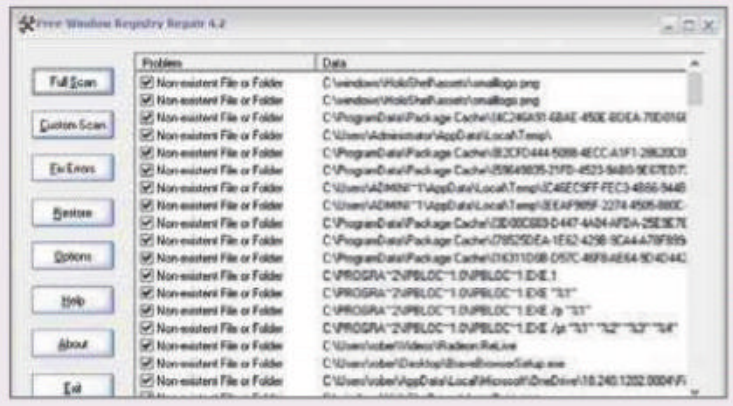
✓ Install this program...

Free Window Registry Repair 4.2

bit.ly/repair481

Min requirements: Windows 7/8/10
File size: 799KB

Most of the time, you can forget about the Windows Registry because it's very good at taking care of itself. Occasionally, however, rogue programs or clumsy editing can cause problems that make your PC unstable. Free Window Registry Repair aims to fix any trouble you experience with the Registry. The latest version adds new Registry keys to the list of those you should ignore for safety reasons, and includes bug fixes and stability improvements. You can run a full or custom scan, fix errors, restore your Registry and create a backup before making any changes.



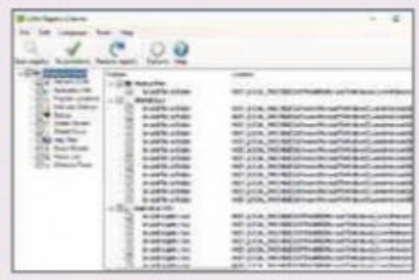
...Not this one ✗

Little Registry Cleaner

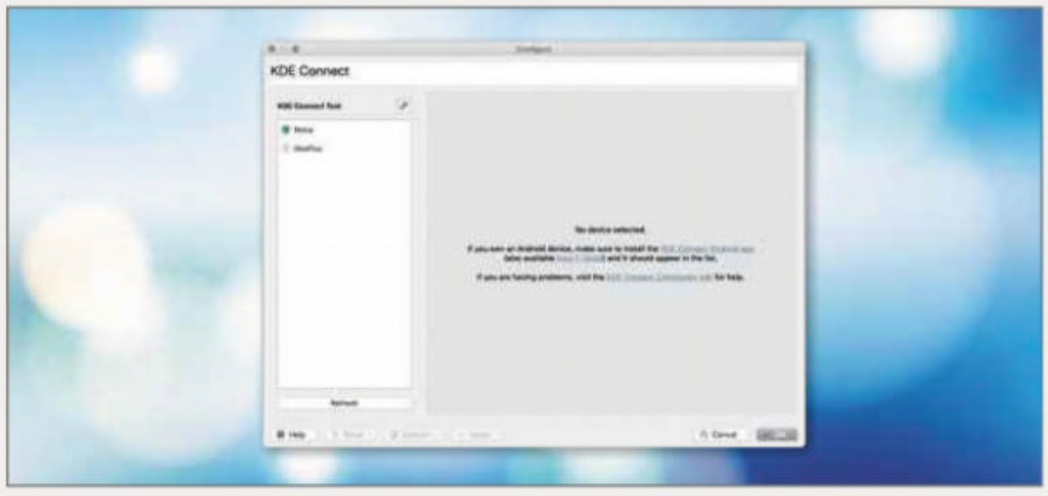
bit.ly/little481

Min requirements: Windows XP/Vista/7/8
File size: 3.45MB

If you stumble across this program, you may be tempted to download it because of the name: "Aw, look at the cute Little Registry Cleaner!". We'd advise against it, however, because the tool hasn't been updated since 2014, and there are more efficient and reliable Registry maintenance tools available that are better at fixing problems.



OTHER OPERATING SYSTEMS What's new for Linux and macOS



DEVICE SYNCHRONISATION TOOL

KDE Connect

bit.ly/kde481

Min requirements: macOS 10.14 or later, Android phone
File size: 89.61MB

If you own a Mac and an iPhone, you can use Apple's Continuity feature to switch between devices and continue working where you left off. This feature isn't available on Android phones by default, but now the third-party KDE Connect tool lets you enjoy Continuity-style features between a Mac and an Android device, including desktop notifications, file and link sharing, and so on. KDE Connect has been available on Windows for a while, but the developers have added the macOS version as part of the Google Summer of Code 2019.

LINUX DISTRO

Debian 10 'Buster'

www.debian.org

Min requirements: 1GB RAM, 10GB hard drive space **File size:** 2.3GB

Debian is the Linux operating system that many others are based on, including Ubuntu. After two years in development, Debian 10 'Buster' is now available and comes in a choice of desktop environments: GNOME 3.30, Cinnamon 3.8, KDE Plasma 5.14, LXDE 0.99.2, LXQt 0.14, MATE 1.20 and Xfce 4.12. Over 60% of the packages in this new build have been updated.

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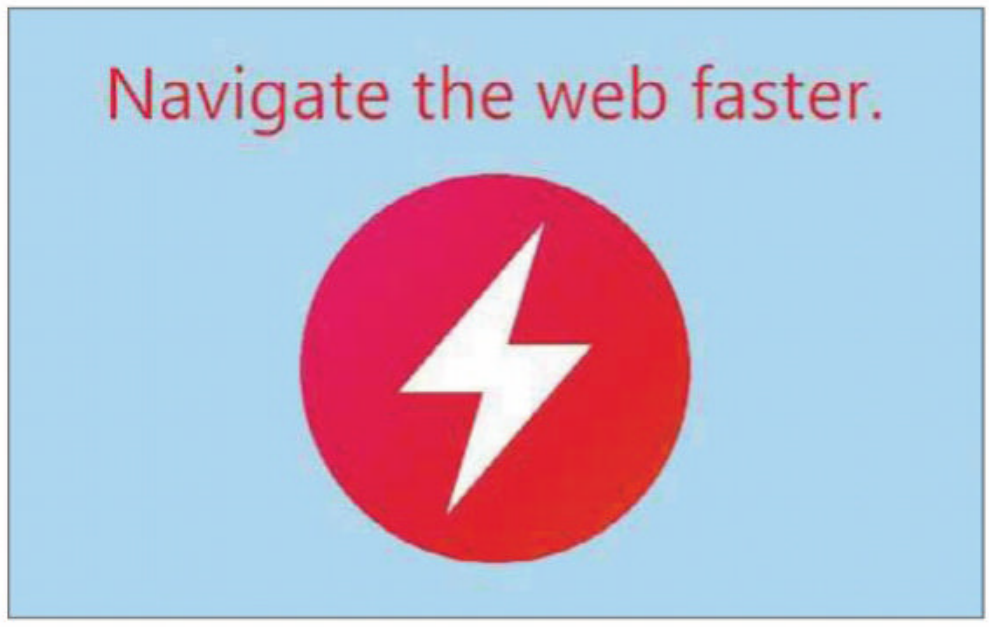
Best New Browser Tools

CHROME

Browse the web faster than ever with Chrome

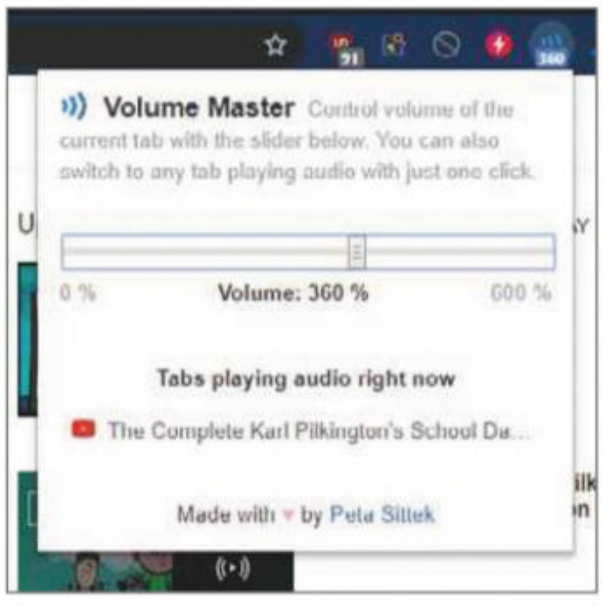
One of the most common complaints about Chrome is that it's too slow. Back in 2008, when the browser was first released, it felt like a breath of fresh air. Now, however, it often feels as sluggish as Internet Explorer. If you've been drumming your fingers on the desk as you wait for another website to load, it's time to install FasterChrome (bit.ly/fast481).

According to the developer, this extension "uses just-in-time preloading". That's a fancy way of saying that it starts to load a page when you hover over its link with your cursor rather than waiting for you to click it. FasterChrome won't do this for every page – if you're logging out of a site, for instance – and it works best on pages within a single website. Preloading increases speeds by around 300 milliseconds, however, which in internet time is about a year.



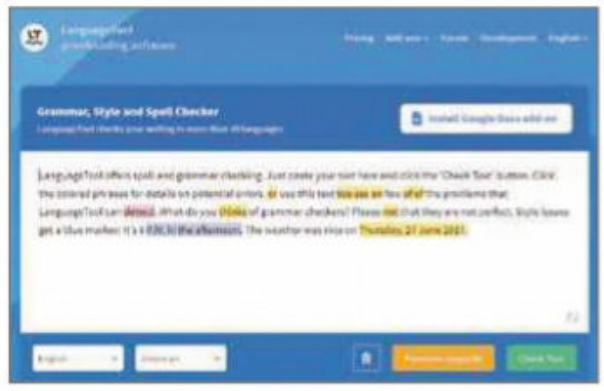
Control the volume of websites

Audio is a tricky business. All too often, we visit a site and the sound is just too loud or frustratingly quiet. Volume Master (bit.ly/volume481) takes care of this problem. Once you've installed the extension, open a video in your browser, then click the icon. Sound plays at 100% by default, but you have the option of cranking it up to a whopping 600%.



It also has another excellent feature: with one click, you can instantly switch to a tab that's playing audio. This is particularly handy when a website plays a video automatically and you need to track it down to mute it.

Volume Master treats each tab separately, so you can boost the volume for one video and quieten it for another.



Avoid making spelling mistakes online

There are plenty of tools that help you improve your writing, but Language Tool (languagetool.org) is easily one of the best. It scans everything you write on sites such as Gmail and Facebook, and if you make a spelling mistake, it underlines the word in red, just like a word processor. Grammar and style errors are underlined in yellow and blue.

When you click a word or phrase that Language Tool has highlighted, it reveals some suggested corrections. Particularly useful is the option to have the mistake explained to you so you can avoid making it again in future.

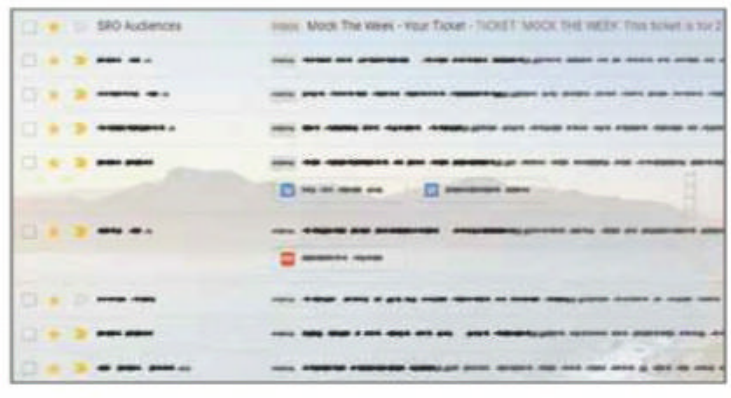
You can also type or paste your writing into the text box on the official website. From here, use the drop-down menus to find out how your words read in other languages, including French, Chinese and Japanese.

Focus on your urgent emails

It's all too easy to get distracted when checking your emails. You start responding to one message, but then another one catches your eye and you find yourself mentally preparing how to reply to it before you've finished with the first.

If you find this a problem, it's time to download Gmail Focus (bit.ly/gmail481). Now when you visit Gmail, you'll see only the details of the top message in your inbox. All the others are blurred out, with a scribble effect that masks the sender's name, subject line and first line of the message.

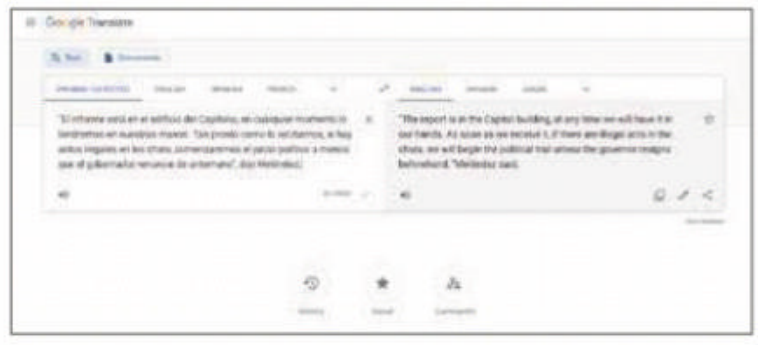
This makes tackling your inbox much less daunting because you can deal with your messages one at a time without getting distracted. You can still click into any email to read it, but thanks to the focus effect, you won't know what's in it until you've opened it.



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

FIREFOX

Translate any web page into English within Firefox



The web is great for keeping up with world affairs, following international celebrities and buying cheap electronics from China. But if you don't speak the lingo, you're at a real disadvantage. Both Google and Edge offer built-in translators, but Firefox is lacking in this department, which is why To Google Translate (bit.ly/translate481) is an essential add-on for the browser.

If you want to translate an entire page, right-click and select 'Translate page'. For a specific section, highlight the text and right-click. Selecting the option to auto-detect and translate the text opens a new tab containing Google Translate's familiar setup. You can also choose to Listen, although this can be hit and miss.

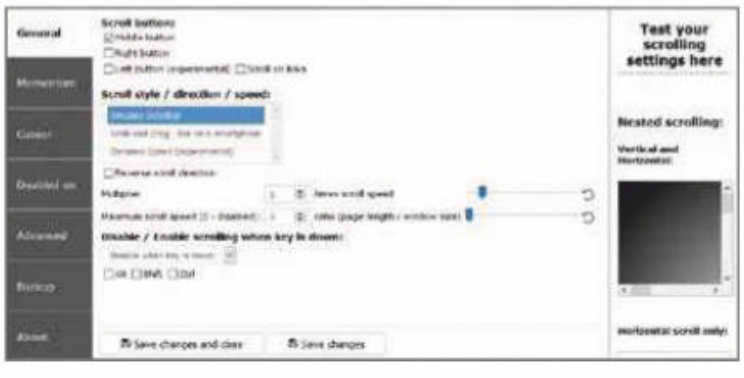
Before you start translating, hop into the settings, where you can choose your default language.

Scroll web pages more easily

You probably don't give the process of scrolling through web pages much thought. ScrollAnywhere (bit.ly/scroll481) will change that.

This add-on brings a new dimension to scrolling, because it lets you click a mouse button and sweep up and down a page as easily as if you were using your phone. Once you've installed it, visit the settings page to tweak the scroll style, alter the speed and change how the cursor acts. It sounds strange, but the add-on actually makes scrolling through web pages fun.

Despite its name, the tool doesn't work on every website, including (notably) addons.mozilla.org. However, the developer says you can fix this by going to `about:config` and creating a key called `privacy.resistFingerprinting.block_mozAddonManager`. Set the Boolean value to True, and in the key 'extensions.webextensions.restrictedDomains', delete the 'add-ons' domain.



Manage your bookmarks better

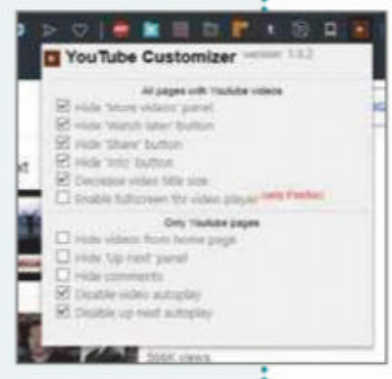
If you're anything like us, you probably have a favourites bar and folder filled with websites you swear you'll revisit but never do. You may use a handful of these, but most of them languish, almost forgotten, in your browser.

That's where Keep or Delete Bookmarks (bit.ly/bookmarks481) comes in. This extension transforms bookmark management into a simple matter of swiping left or right, like on Tinder. Click its toolbar button and it shows you every bookmark you've saved, one by one. Under each link, you'll find four options: Keep, Delete, Next and Open. This is probably the quickest way to prune your unwanted bookmarks.

OTHER BROWSERS

Customise YouTube

Despite its many redesigns, YouTube still feels like a cluttered mess. Even when there's just a single video in the centre of the screen, it can be difficult to know where to look. YouTube Customizer (bit.ly/youtube481) cuts out the distractions. Click the toolbar icon for options that give you full control over the video site's appearance. This includes hiding the 'More videos' panel, video information, comments and actions such as Watch Later and Share. You can also disable those autoplay options that YouTube loves to foist on us.



Clear your browsing history automatically

The latest version of Edge Chromium offers a great new tool: the ability to delete browsing data automatically when you close the browser. Unfortunately, it's not activated by default. To switch it on, first click the three dots and select Settings. Choose 'Privacy and services', and at the top of the page you'll see the option to 'Clear browsing data'. Click 'Choose what to clear' and select anything you want to erase, from cookies to history and passwords. The changes apply only to the account you're using, so if you have more than one profile, you'll need to do the same for each one.

Best Free Apps

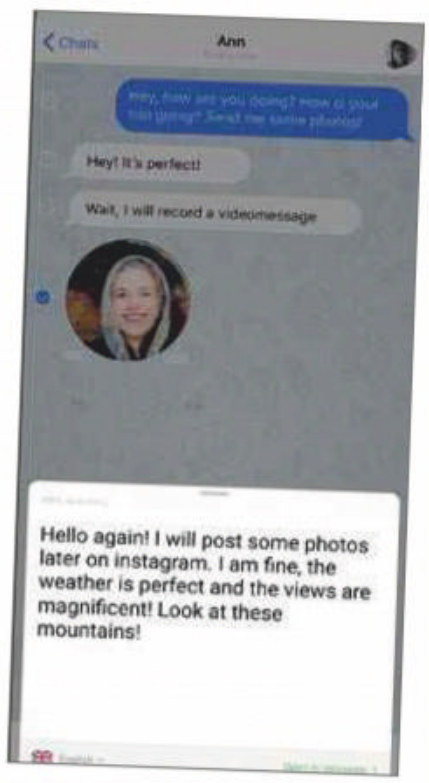
App of the Fortnight

COMMUNICATION

NEW

Voicepop

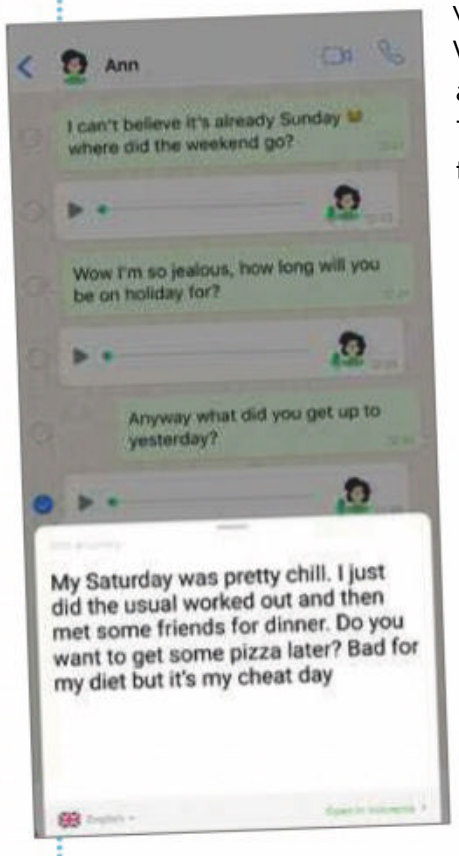
bit.ly/voicedroid481
bit.ly/voiceios481
(varies) 10



Messaging apps such as WhatsApp offer a number of ways to communicate with others, such as sending text messages, making voice or video calls and more. One easy way to get in contact with someone is to record a brief voice or video message. To do this in WhatsApp, for example, you simply hold down the mic or camera button while speaking, then release the button to send your message.

While dictating a message may be easier for the sender than laboriously typing out a text, it's not always convenient for the recipient. When you're in a meeting, a library or a doctors' waiting room, for example, you can probably get away with checking your texts but playing an audio message out loud is much less appropriate. That's where Voicepop comes in.

The app is very easy to use. It basically transcribes any recorded speech from audio or video messages you receive in WhatsApp and other messaging apps (including Line, Signal and Telegram) into a text message that you can read quietly.



Once installed, Voicepop works as an extension to your messaging app, so it's very easy to use. It's also fast, accurate and can process voice messages that are up to two minutes long. The tool encrypts your messages to ensure their contents remain private, and the developers state that no human employees have access to your data.

The app and transcription services are currently free, although that could change in the future. The only real catch is that you need to be online for Voicepop to transcribe your voice messages, because the speech-recognition technology it uses is based in the cloud.

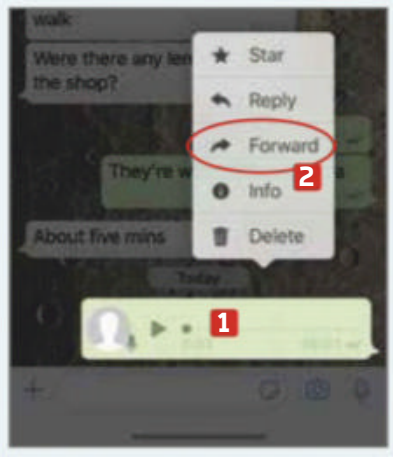
Our rating ★★★★★

MINI WORKSHOP

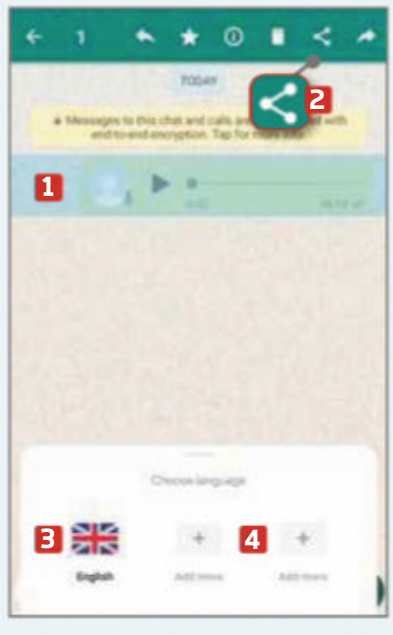
Transcribe voice messages using Voicepop

1 To set up Voicepop as an extension in iOS, launch the app, then select 'Set it up'. In the Share panel that slides up, 1 swipe the upper strip of apps 2 to the left until you see the More button. 3 Press this, then scroll to the Voicepop extension and tap the switch to enable it. If you prefer, you can drag Voicepop to the top of the list for quicker access.

2 Press Done, then Cancel to return to the app. Tap Next, then Done. To use Voicepop, launch WhatsApp, long-press a voice message 1 and select Forward. 2 Now tap the Share button (bottom right) and press the Voicepop icon. Select your default language (or press the plus sign in one of the other boxes to choose a different language) and Voicepop will transcribe your voice message into text.



3 In Android, Voicepop is added to the extensions list automatically. Open WhatsApp and long-press a voice message to select it, 1 then tap the Share button. 2 In the Share panel that slides up, tap the Voicepop Transcribe icon. Select your default language 3 (or tap the plus sign in one of the other boxes 4 to choose a different one) and Voicepop will transcribe your voice message into text.



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

SOCIAL

NEW

MashApp

bit.ly/mashappdroid481
bit.ly/mashappios481

6 11

There's currently no shortage of social-media apps vying to be the next Instagram or Facebook. MashApp is among the latest hopefuls. The idea behind it is that it lets you have video exchanges with your friends, but rather than sending a video message or having a video chat, you record a short movie and send it to them. They then record their own video 'punchline', which appears either before or after your clip. It's a fun way to share in-jokes, but will it catch on? Who can say?

Our rating ★★★☆☆

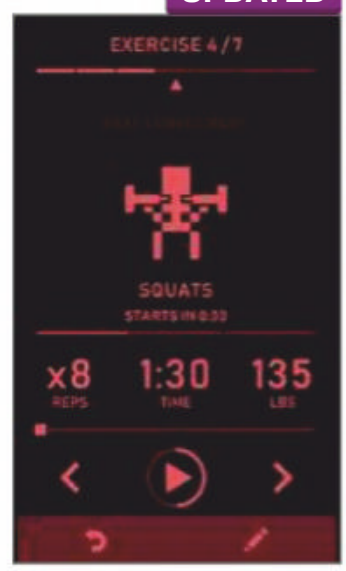
FITNESS

UPDATED

321Fit

bit.ly/321fit481

4.1



It's early days for this new, independently developed exercise app, but it's already worth installing if you fancy trying a different approach to your exercise routine. 321Fit works a little like a music player app, except that instead of musical playlists, it lets you put together your very own 'playlists' of different timed exercises. When you're ready to begin your workout, press play and follow your playlist to maximise your time in the gym. You can create multiple playlists and log your performance to track your progress and ensure you keep improving.

Our rating ★★★★☆

GAME

NEW

Lego Tower

bit.ly/legodroid481
bit.ly/legoios481

4.3 11

If you enjoy management simulation games like Tiny Tower and you love Lego, this could be the perfect game for you. The idea is that you set up Lego people to work in different businesses on different levels of your tower, then point visitors to the correct floor when they arrive. Doing this successfully generates the in-game currency you need to build more floors, order stock and so on. Along the way there are Lego minifigures to collect and fun side-quests to play. In-app purchases speed up your progress, but they're not necessary.

Our rating ★★★★☆

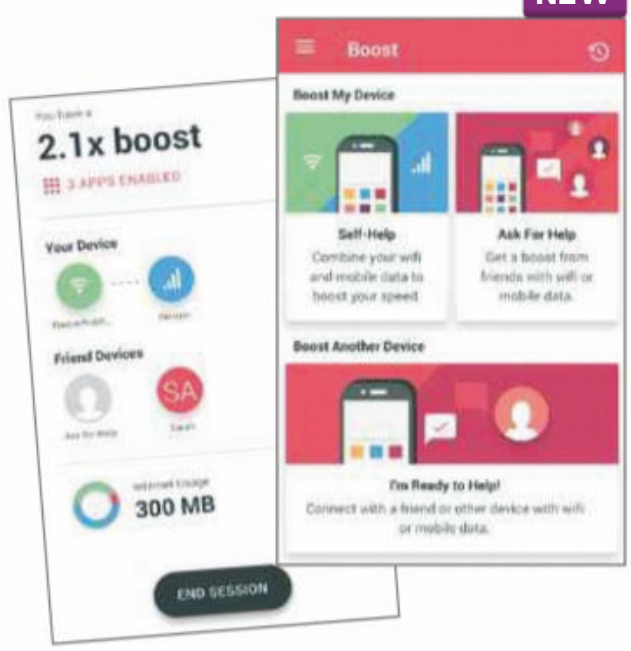
NETWORK TOOLS

NEW

DataNinja

bit.ly/dataninja481

5



The intriguing aim of this app is to make bandwidth problems a thing of the past by boosting wireless reception and easing network congestion. It does this by merging your Wi-Fi and mobile networks to create a single super-fast and reliable connection. You can boost speeds even further by linking the devices of family and friends to create a 'fog network'. That's the theory, at least. In practice, the app asks for permissions it doesn't need (such as access to your contacts) and rarely works as advertised. It couldn't improve our connection speed when we tried it, and other reviewers appear to have had a similar experience.

Our rating ★★☆☆☆

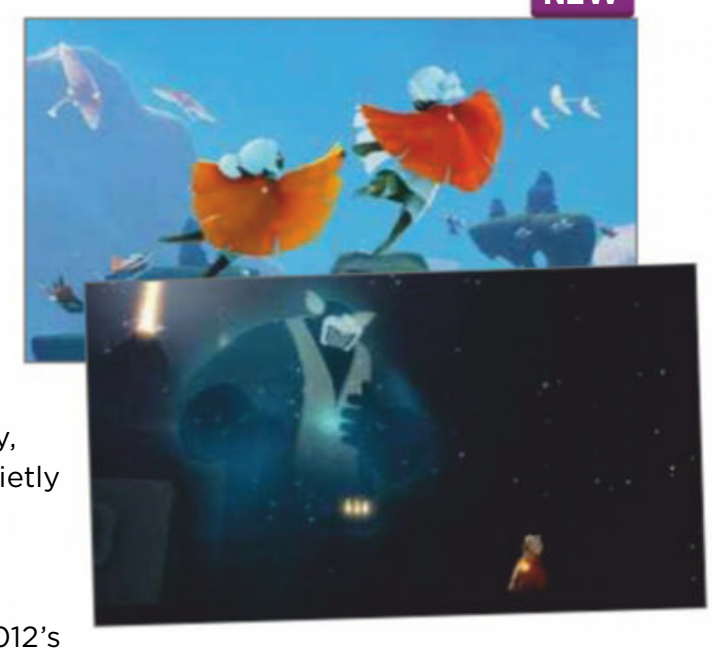
GAME

NEW

Sky: Children of the Light

bit.ly/sky481

9



Sky: Children of the Light is the latest creation from game developer Thatgamecompany, which has been quietly proving that great games don't need zombies, Nazis or shotguns – as 2012's fantastic Journey exemplifies brilliantly. In Sky, you play as an unnamed child who is given the task of finding lost stars. It's a beautiful, mellow experience that has you walking, surfing or even flying (with the aid of your upgradeable cape) around stunning environments as you progress through the adventure, explore for secrets and participate in brief moments of spontaneous co-op play with other online players. Generously, the entire main game is free to play.

Our rating ★★★★★

5 NEW APPS WORTH PAYING FOR

FAMILY

WeParent

bit.ly/weparentdroid481
bit.ly/weparentios481
Price: £2.79 per month
5 11
Take the awkwardness out of co-parenting a child with this ingenious app that lets you manage custody schedules, share information, exchange messages and more.

WALLPAPER

Sharks 3D

bit.ly/sharks3D481
Price: 89p
5
Depending on how you feel about sharks, this live wallpaper – which displays 3D animations of them swimming around your home screen – could either be the best 89p you'll ever spend or your worst nightmare.

GAME

Beholder 2

bit.ly/beholder481
Price: £4.99
11
Your task in this darkly humorous game is to survive as a Ministry employee in a dystopian society. It's currently available only on iOS – check its app-store page for a list of compatible devices.

MESSAGING

Import That App

bit.ly/import481
Price: £3.19
4.1
This app helps you switch from Microsoft's Windows Phone platform to Android by importing all your old WhatsApp messages and content (photos and videos) to your new device.

EDUCATION

micro by THIX

bit.ly/micro481
Price: £1.99
9
We always knew that science can be fun, but this app – which acts like a virtual petri dish – turns your mobile device into a cool portable microbiology lab. Create and observe bacteria, viruses and fungi as they grow and interact.

WeParent

Sharks 3D

Beholder 2

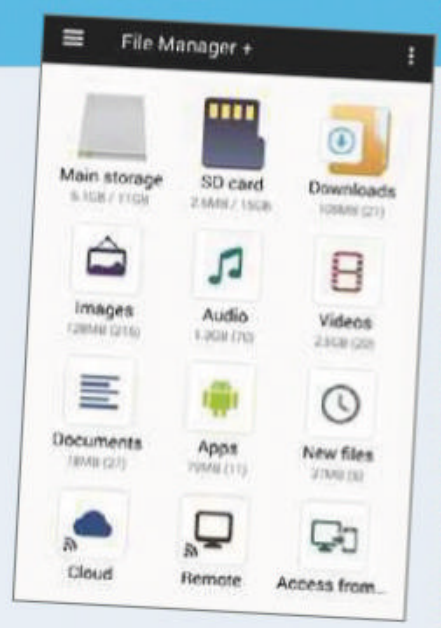
Import That App

micro by THIX

Install this app...

File Manager

bit.ly/file481
4.03



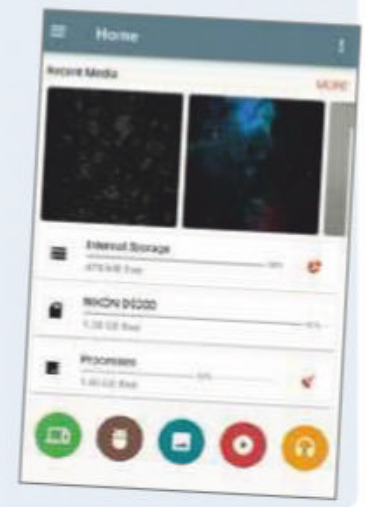
Google's own Files app is great for decluttering your device, but when it actually comes to managing your files it's somewhat basic. Thankfully, there are plenty of alternatives available. Our current favourite is simply called File Manager (although it's not the only app with that name, so use our bit.ly link above or the QR code, right). It's fast and lets you navigate either by storage location (main storage, SD card) or by file type (images, audio and so on). It also offers dozens of features that Android's stock file manager doesn't, including the option to bookmark files and folders, and the ability to access and transfer files from NAS devices and PCs.

...Not this one

ES File Explorer

bit.ly/explorer481

ES File Explorer was once a great Android file manager but fell into disrepute when a new developer saw fit to fill it with unnecessary bloat. Earlier this year, the app mysteriously disappeared from Google Play altogether, and this obviously fake knock-off sprang up in its place. This sad attempt to cash in on the original app's reputation barely functions as a file manager and treats you to a tsunami of ads instead.



Take a Screen Break

Give your eyes a rest from your browser by taking our fiendish fortnightly challenges. Can you guess our girl-group emoji and our Wikipedia article?

WIN A WEB USER 2018 BACK ISSUES DISC!
Email your answers to editor@webuser.co.uk – one correct entry will win a disc

CAN YOU GUESS THE GIRL-GROUP FROM THE EMOJI?

1

2

3

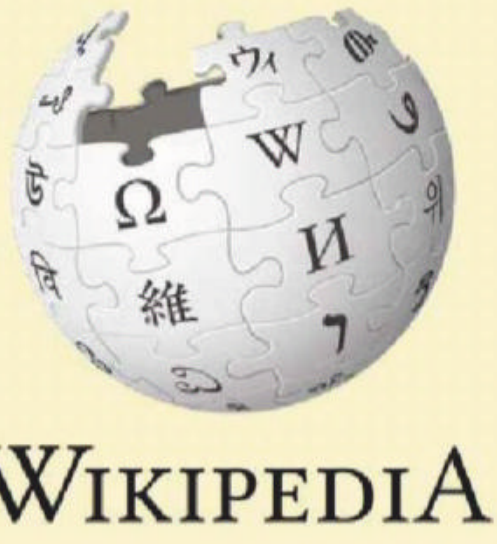
4

5

6

GUESS THE WIKIPEDIA ARTICLE

Can you work out which technology-related Wikipedia entry the following clues refer to?



1 "It was founded in Mountain View, California on 18 July 1968, by semiconductor pioneers Robert Noyce and Gordon Moore. The company's name is a portmanteau word."

2 "Although it created the world's first commercial microprocessor chip in 1971, it was not until the success of the personal computer (PC) that this became its primary business."

3 "It manufactures motherboard chipsets, network interface controllers, flash memory, graphics chips, embedded processors and other devices related to communications and computing."

Credit: Wikipedia

5 "Its famous five-note jingle was produced by Musikvergnuegen and written by Walter Werzowa, once a member of the Austrian 1980s sampling band Edelweiss."

COMPETITIONS

WORTH AROUND £200

WIN A...
Toshiba Storage Prize Pack

In this prize bundle, Toshiba is giving away a Canvio Premium 4TB hard drive, a Canvio Premium 1TB hard drive, a 64GB U365 TransMemory USB 3.0 Flash Drive and a 32GB Exceria Pro N502 SD card. To enter, email your address to webusercomp@dennis.co.uk with 'Toshiba' in the subject line. For more information on Toshiba's range of products, visit www.toshiba.co.uk.

WORTH £400

WIN A...
Netgear Orbi Voice Smart Speaker Kit

With Amazon Alexa built in, Netgear's Orbi Voice kit does an excellent job of combining a voice-controlled speaker with mesh Wi-Fi. Alexa transforms the Orbi Voice Satellite into an interactive hub for music, information and home automation. To enter, email your address to webusercomp@dennis.co.uk with 'voice' in the subject line. For more info, visit www.netgear.co.uk and follow @NETGEAR_UKI on Twitter.

FAQ

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

Minecraft Earth

The best-selling PC game of all time is launching its block-building fun on the real world. **David Crookes** reveals what to expect

What is it?

Minecraft Earth is the latest iteration of one of the globe's most successful gaming franchises, and this time it is bursting out of its in-game world. By branching into real life using augmented reality (AR), the block-building game is overlaying virtual creations on the streets and spaces around you, paving the way for a whole new mobile experience that could be gaming's next big thing.

How different will it be?

Like the original Minecraft, which was released in 2011, Minecraft Earth allows players to gather resources, engage in crafting and build structures that others can enjoy and explore. The big difference is that it will create a living, breathing parallel land in which the objects you construct are placed in specific real-world locations in life-size AR. When other players wander by, they'll be able to see those structures through their phones or tablets and interact with them. Creation and discovery is key.

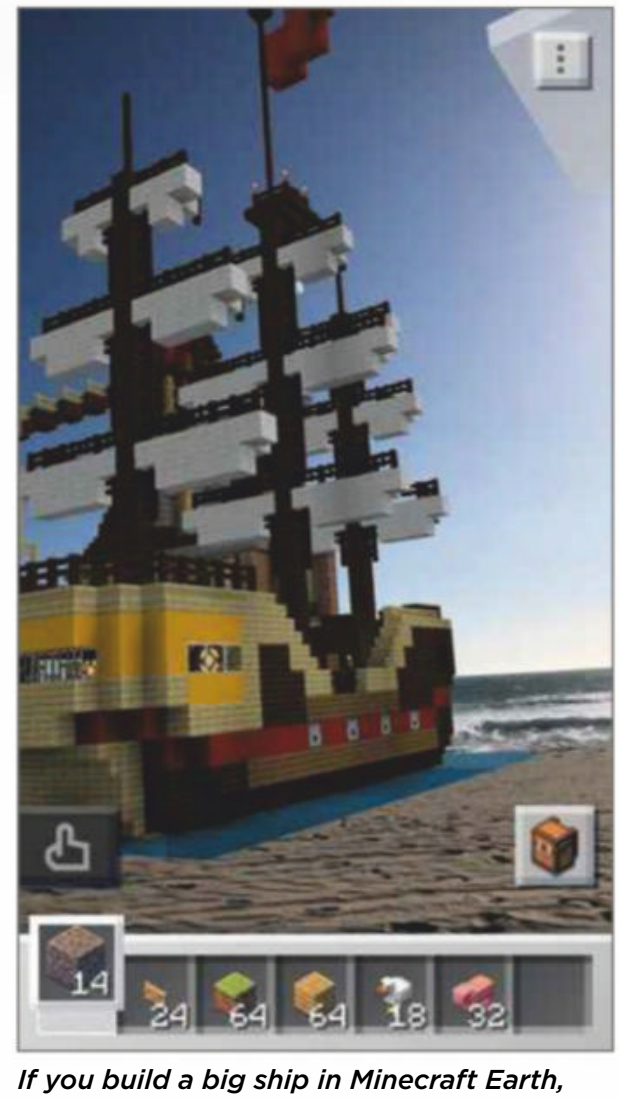
So is it a blockbuster in the making?

Time will tell but developer Microsoft is hoping so. Not only is it building on a strong user base of 91 million active Minecraft players, but the company believes gamers will enjoy the opportunity to express their creative side on a far grander scale than before. Microsoft has also seen the impact of Niantic's AR game, Pokémon Go, which peaked at 147 million monthly users in May 2018 and has been downloaded more than a billion times. The appetite for using real-world settings and mobile devices' GPS appears strong.

Minecraft Earth places full-size versions of structures you create in the real world

How does it work?

The game looks set to appeal on numerous levels but adventuring is at its heart. Players will be thrown into a virtual world based on a precise geographical location such as their real-life neighbourhood, a beach, a park or a city, viewing the action through their phones or tablets and doing all they can in that area, whether mining resources, battling against hostile mobs (the game's creatures) or getting creative. What's intriguing is that everyone enjoying the game will see the exact same thing through their phones if they are in the same location. Microsoft believes this will help make the game the killer app for AR.

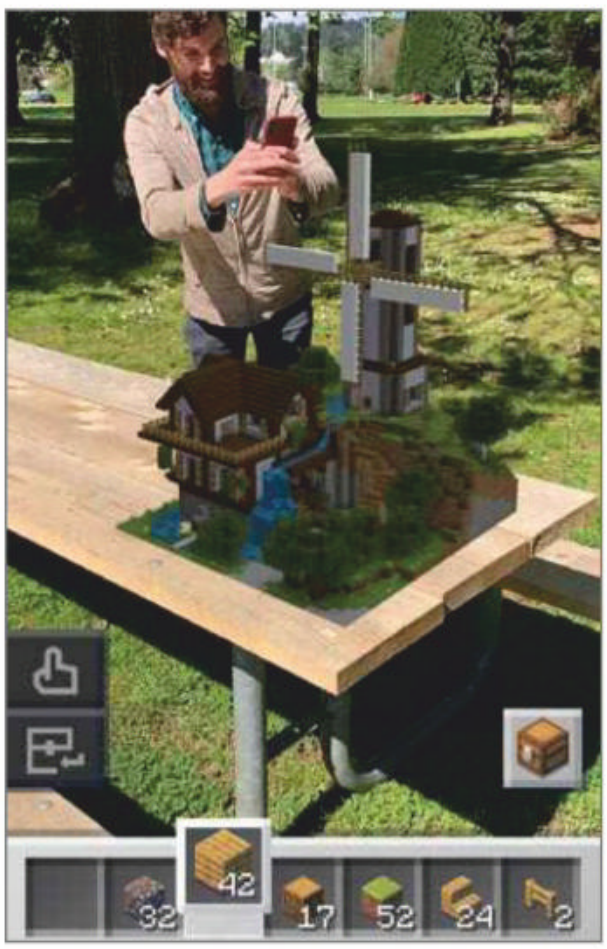


If you build a big ship in Minecraft Earth, other players will see your ship, too

How does the game know where players are?

First of all, Microsoft is breaking the world down into the smallest of blocks by using open-sourced OpenStreetMap data to create procedurally generated adventures. It'll determine how suited the location is for gameplay, thereby figuring

what would be most appropriate for players to do there. More importantly, however, Microsoft is using its Azure Cloud Spatial Anchor system (bit.ly/azure481), which fixes a player's location in virtual space using machine-vision algorithms and real-world objects. It's a complicated process but it'll enable the game to figure out what the player should be seeing.



Build an AR windmill and invite other Minecraft Earth players to give it a whirl

Can I collaborate with other users?

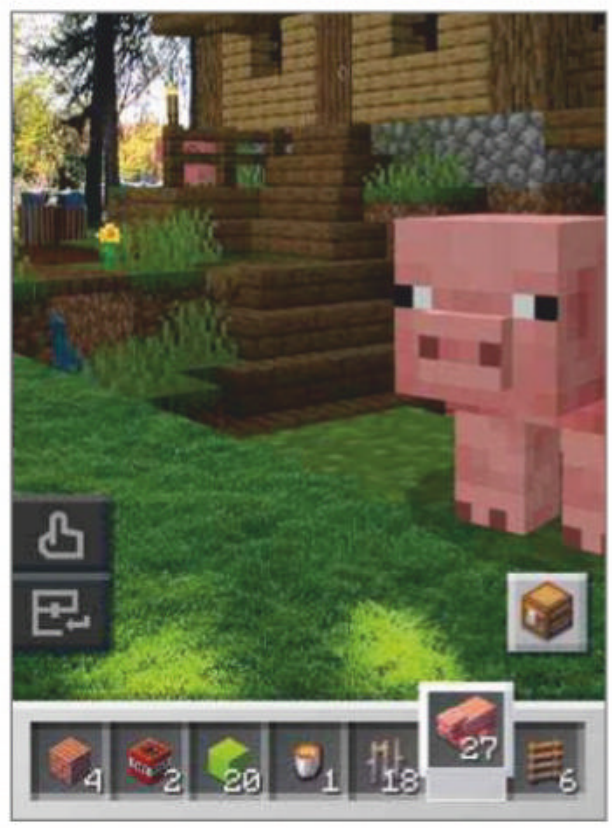
Definitely, collaboration is one of the key aspects of the game. It allows like-minded crafters to work together on mammoth structures, gathering their own resources and bringing them to a shared "build plate". There will be a variety of plates to suit different builds – you could, for example, create a ship on a water plate. When one player adds to the structure, the others will see the blocks being assembled and the resulting build can then be placed in the real world. Players can also gather around a flat surface and create their structures in miniature form. When each structure is placed at a location on the map, it becomes life-size and viewable by others.

But can I still burn things down?

Of course. Just because Minecraft is moving into the real world, it doesn't mean that the rules you've become accustomed to within the game are totally different. Indeed, the game is based on the existing Bedrock Engine and it will feel the same. You can loot (although there will be no loot boxes), and use Flint and Steel to set fire to blocks. If you love producing redstone devices – objects that perform an action when they receive a signal – then you can do this, too.

Is there much fighting involved?

You'll be able to battle hostile in-game mobs either alone or with the help of others. Defeating such an enemy will cause them to drop useful items. You'll also be able to steal from other players but, given that you'll be in the same vicinity, this may not be such a good idea. It will be safer to collect rare and randomly placed 'tappables' that earn you different material blocks, various mobs and objects. A couple of tappables will always be close by when you start an adventure to get you going, but you'll have to get the rest by exploring, and they will prove vital if you want to build the most impressive structures. It will also be possible to earn in-game currency called Rubies to purchase extra build flexibility.



Collect tappables to get mobs in Minecraft Earth, such as this pig for the garden

What platforms will the game be on?

Minecraft Earth will be free to play on iOS 10 and above and Android 7 and above, as long as your device is capable of AR. A Microsoft or Xbox Live account is also needed to play.

The game was rolled out in beta on 25 July, with limited places available for would-be players. Anyone interested is asked to sign up at the official website (bit.ly/mine481).

But is the game the same on both platforms?

Fundamentally yes, but on iOS, Minecraft Earth will use Apple ARKit 3.0's People Occlusion feature. This allows the game to recognise people and their position in the 3D environment, so they are automatically cut out and placed in the virtual world. The function was showcased at Apple's WWDC keynote in June where a Mojang employee's avatar was shown walking around the Minecraft Earth environment, in front of and over blocks. On Android, the game will use Google's ARKit equivalent, ARCore.

It may be a while before the game leaves beta so if you fancy seeing how far Minecraft has come since its launch eight years ago, check out the original at classic.minecraft.net.

HOW MINECRAFT EARTH USES HOLOLENS

In 2015, Microsoft demonstrated a version of Minecraft being played through its wireless augmented-reality headset HoloLens. By turning your head, it was possible to view the Minecraft world from multiple angles, with the real-life environment in the background. It fostered a sense of immersion that had critics raving.

The new Minecraft Earth is another step toward realising this idea for the mass-market. It uses the HoloLens algorithms to pinpoint the location of players in the game, and the hope is that work on Minecraft Earth will help development of HoloLens. Whether or not Minecraft Earth will ever appear on HoloLens is unknown, however.

REMOVE YOUR FACE FROM THE WEB

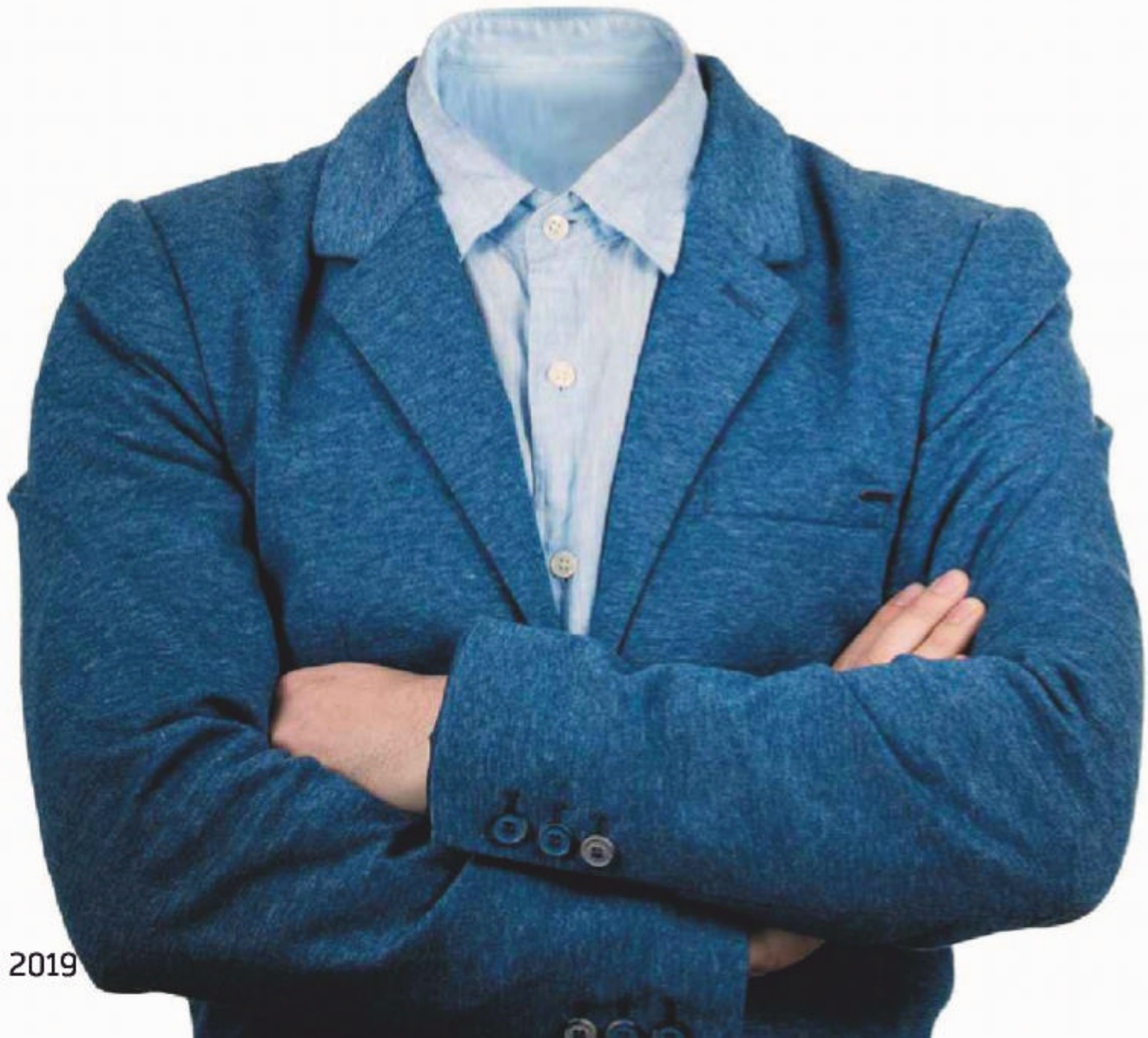
COVER FEATURE

Want to keep a low profile online? **Wayne Williams** explains how to protect your identity by foiling facial recognition and deleting identifiable information about you

Facial recognition has made the headlines recently, amid concerns over how law-enforcement agencies in the UK and abroad are using the technology. Civil-rights group Liberty called facial recognition "a dangerously intrusive and discriminatory technology that destroys our privacy rights", while academics have described its deployment in public spaces as "surveillance creep" (bit.ly/guardian481).

Although concealing your identity is becoming nigh-on impossible in the modern world, you still have some control over how your image, name and other personal details appear online, as long as you know what steps to take. In this feature, we explain how to remove photos, videos and any mention of your name from the web – and how to stop them appearing there in the first place.

We also look at how tech giants including Facebook, Google and Amazon are using facial recognition for their own ends, and – in the spirit of fairness – highlight some positive uses of the technology.

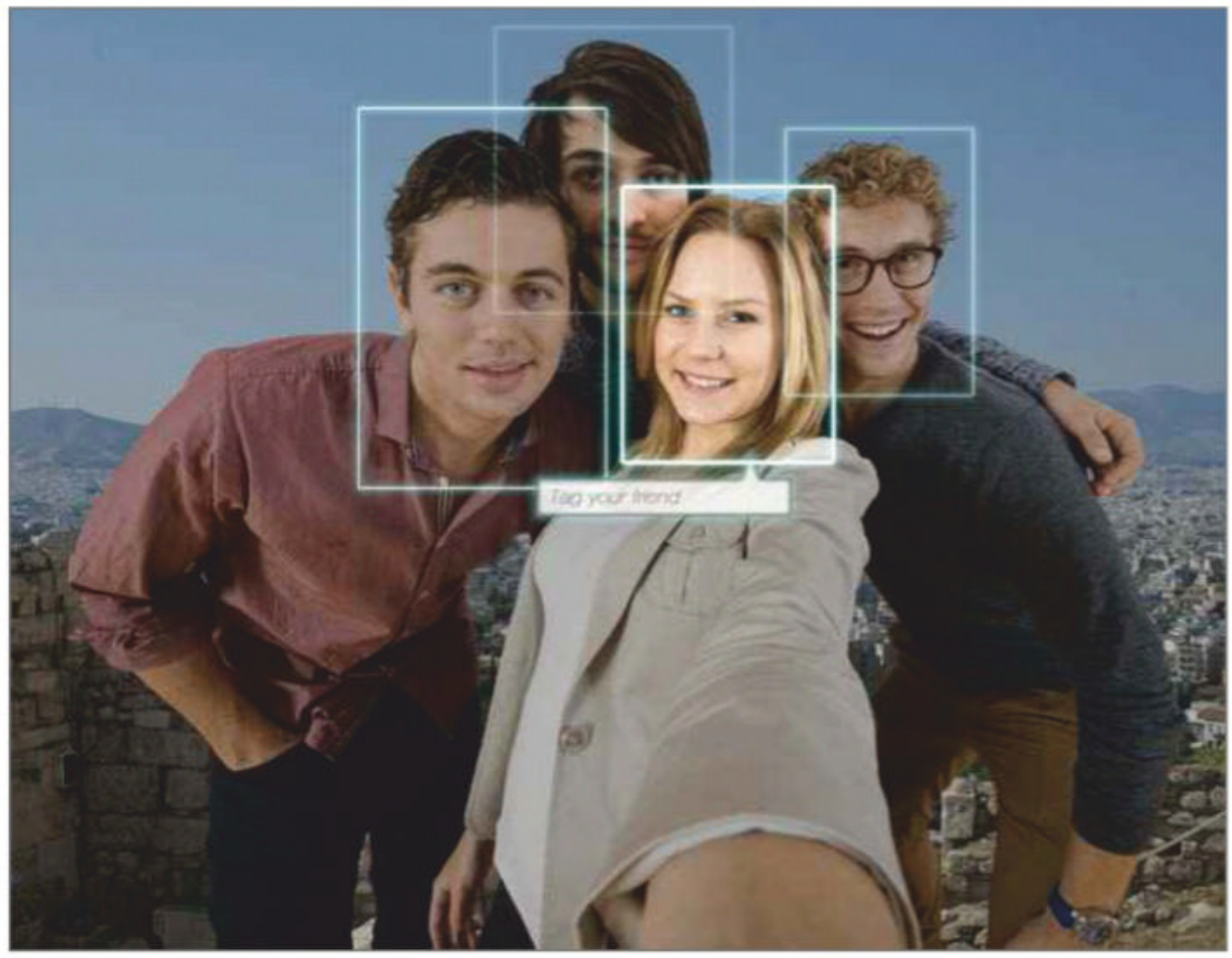


YOUR FACIAL-RECOGNITION QUESTIONS ANSWERED

What is facial recognition?

There are two basic types of facial recognition. At its simplest, the technology recognises that something is a face. Point your phone's camera at one or more people, for example, and if it detects what look like eyes, a nose and a mouth in close proximity to each other, it will assume it's a face and stick a box around it, track it and make sure it stays in focus. Point your camera at a crowd and it will identify multiple faces.

More advanced facial-recognition systems not only spot faces but try to work out who a particular face belongs to. When you see someone you know, your brain processes a huge amount of information about them – the size, shape and colour of their eyes, the width and length of their nose, the size and shape of their mouth, the colour and style of their hair, and so on. Advanced facial-recognition software does much the same thing.



> "Developers use photos from various online sources to train their facial-recognition systems. How do you know if your face has been harvested in this way? You don't"

What is face-recognition training?

While most people can identify faces easily, computers find it much more of a challenge. Your phone, for example, can usually pick out faces in a scene, but it might also tag a tree that has face-like features in the bark. To make the task even trickier, faces can be distorted in numerous ways – such as when we smile, frown, yawn and so on – and they look different depending on the angle. Feeding lots of photos of the same face and others into a computer makes the recognition models much smarter, enabling them to identify faces when only a portion is visible, for example.

The developers use photos from all sorts of sources, including Facebook and Google Images, to train their facial-recognition systems. How do you know if your face has been harvested in this way? You don't.

How does it identify you?

There are various systems, which use different methods to identify faces. Essentially, however, they build a 2D or 3D image of your face, then compare it with other images. Systems that use 2D images rely on common facial landmarks such as eyes, nose and mouth, including their size, shape and the distance between them, to produce a unique faceprint – the facial equivalent of a fingerprint. However, different light conditions, angles and areas of shadow can make a face unrecognisable. This is less of a problem with 3D models, which include additional data on depth, curves and so on.

How is facial recognition being used today?

It's everywhere. Imagine you're taking a photo of a friend using an iPhone XS, for example. Even before you start, you use facial recognition to unlock the phone in the first place. Then, while taking the photo, the camera recognises that you're pointing it at a face. Once you've taken it, facial-recognition technology compares your friend's face with those in previous photos, so now when you tap Search in Apple's Photos app, you can see every photo your friend appears in. That photo, along with all the previous ones, is automatically backed up in cloud storage services, such as iCloud and Google Photos, which use more facial recognition to help you search for people you know there. If you've previously tagged your friend on Facebook, the social network knows who they are when you share this new image there, too.

That's not all, of course. There are CCTV cameras everywhere in the UK – including at sports venues, railway stations, airports, major events and concerts – and facial recognition is regularly in use at many of those, too.

How accurate is facial recognition?

If a photo is taken head-on in decent lighting, facial recognition can be very accurate – provided you're a white male. A study in 2018 revealed an error rate of 0.8% for light-skinned men, rising to 34.7% for dark-skinned women (bit.ly/bias481). In 2015, Google's image-recognition app infamously mislabelled African Americans as "gorillas". Google eventually came up with a crude fix that stopped the app labelling any image as a gorilla, chimpanzee or monkey (bit.ly/gorilla481). Since then, the technology has been improving as companies use

Privacy-rights group Big Brother Watch is keeping a close eye on facial recognition

larger and more diverse datasets to train their systems.

However, worrying figures from Freedom of Information requests by Big Brother Watch (bigbrotherwatch.org.uk) showed that between 2016 and 2018 the Metropolitan Police's trial of Live Facial Recognition (LFR) technology suffered a misidentification rate of 96%. At 2017's Notting Hill Carnival, for example, 95 people were incorrectly identified as criminals.

How worried should we be?

Facial recognition is now so ubiquitous that it can't really be avoided. Like most technology, once the genie is out of the bottle, there's no getting it back in. However, unless you've committed a crime and are on a watch list, you probably don't have much to worry about just yet. Facial recognition can spot particular people it's looking for, but blanket surveillance software that tags everyone is currently unrealistic because the processing power required would be phenomenal.

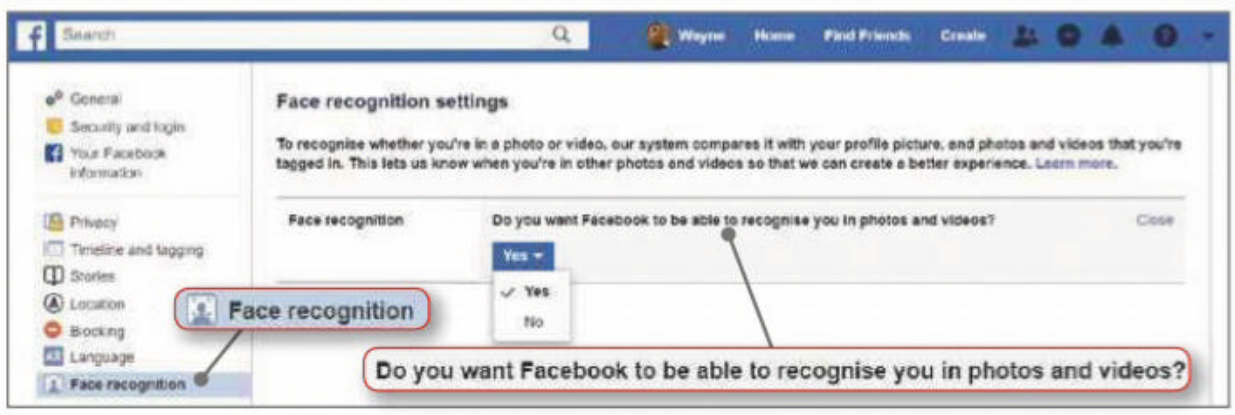
There's little you can do to stop your face being scanned in public, but you can limit the places online where photos of you are publicly available.

KEEP YOUR FACE OFF FACEBOOK

Facebook users like to let others know what they're up to and enjoy the daily memories the site serves up, which is why we upload hundreds of millions of photos to the social network every day. The company scans these uploaded photos for faces it recognises. According to Facebook, its deep-learning system, DeepFace, now has the largest facial dataset to date.

There are benefits to Facebook's ability to recognise you in photos. It allows people to tag you more easily in the photos they upload, for example, and also alerts you whenever you appear in a photo, or if your image has been used in someone else's profile picture – which can help you stop people impersonating you.

If you'd rather keep your face off Facebook, there's good news. The social network lets you completely disable its Face Recognition feature with one click in its Settings. On the website, click the down arrow at the top right, then Settings. In the app on your phone, tap the three lines button, bottom right, and scroll down to the entry there. Click or tap Face Recognition (which is in the left-hand sidebar on the website) and look for the entry 'Do you want Facebook to be able to recognise you in photos and videos?'. If you select this and change it to No, Facebook will no longer recognise you in any photos and videos added to the site.



You can stop Facebook recognising your face in photos and videos that people upload

Can you trust FaceApp?

There are numerous face-based quizzes and challenges on Facebook, including the recent viral hit FaceApp. This app is currently at the centre of a data privacy row after claims that it may share users' personal information with Russian intelligence agencies.

Launched on iOS and Android in early 2017, the Russian-created app generates highly realistic transformations of faces in photos, changing the subject's hair colour, eye colour or gender, among other features. FaceApp users can also find out how they'll look when they get older. The app uses neural networks to map people's faces and generate incredibly realistic images of what they might look like in the distant future.

However, the popularity of FaceApp has led to security concerns, with some claiming the small print offers evidence that the app is being put to nefarious uses, and is secretly sharing users' photos and data with Russian firms. The developers deny this, insisting that FaceApp uploads only the photos that users have selected. The Russian firm also claims that images are deleted from its servers "within 48 hours from the upload date", and insists that no user data is transferred to Russia or shared with any third parties.

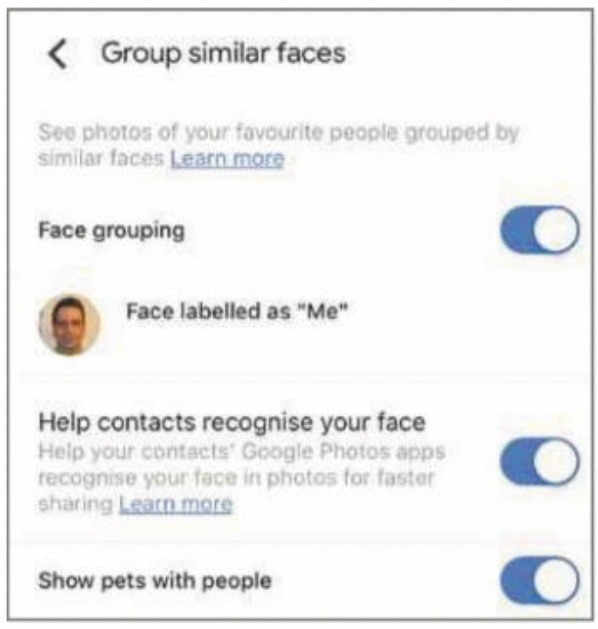
FaceApp reveals how you may look in the future

The UK Information Commissioner's Office (ICO) told BBC News that it was "aware of stories raising concerns about FaceApp" and would be "considering them". In the meantime, if you're wary of entrusting something as valuable as your face to a potentially shady company, we say don't take the risk.

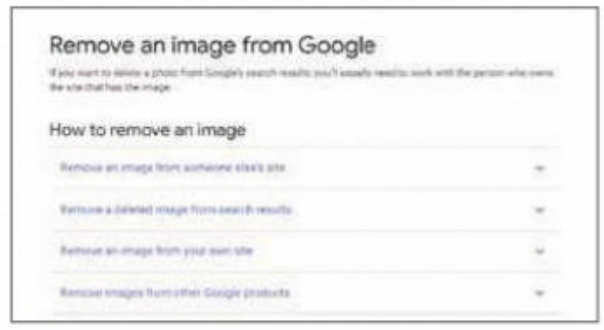
REMOVE YOURSELF FROM GOOGLE

Google Photos has a 'Group similar faces' feature that can show you pictures of people and pets it recognises. Due to differences in privacy laws, the feature is unavailable in some countries outside the US, so although we found it on our devices, there's no guarantee that you will. There's confusion as to why some people in the UK have it when they probably shouldn't, although possible explanations include activating it while using the device abroad or over a VPN.

If the feature is active on your device, you can disable it by opening Google Photos on your phone, selecting Settings and then tapping 'Group similar faces'. You can turn off face grouping completely, or disable the option to 'Help contacts recognise your face', and 'Show pets with people'.



Google Photos offers facial recognition but not everyone has the feature

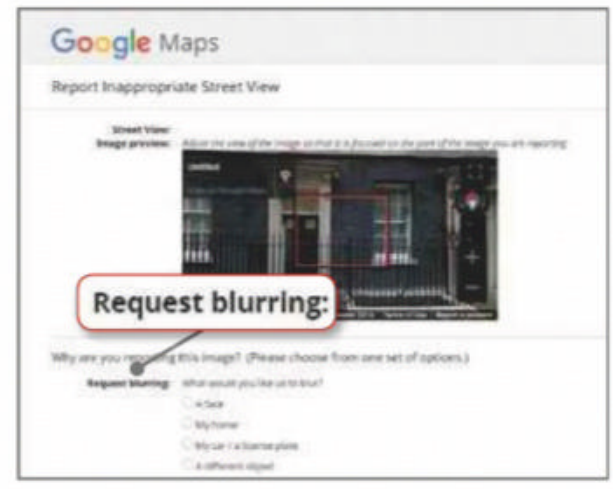


You can ask Google to remove photos of you from its search results

If you find that photos of yourself and other information appear in Google Search, getting them removed can be tricky, because most images in Google's search results come from non-Google websites. If that's the case, your best bet is to speak to the webmaster of the original site. Google can remove images from its search results if they have been deleted from the original location – see bit.ly/search481. Sensitive personal information, such as nude photos or images containing bank details, can be removed from Google by going to bit.ly/photos481.

If your face appears in a YouTube video and you'd rather it didn't, you can contact the video uploader and ask them to blur you out (which they will probably prefer to taking the video down). YouTube provides tools that make the process easier, although the blur option isn't currently available in YouTube Studio beta (studio.youtube.com). The channel owner will need to select Creator Studio Classic in the left menu to access it.

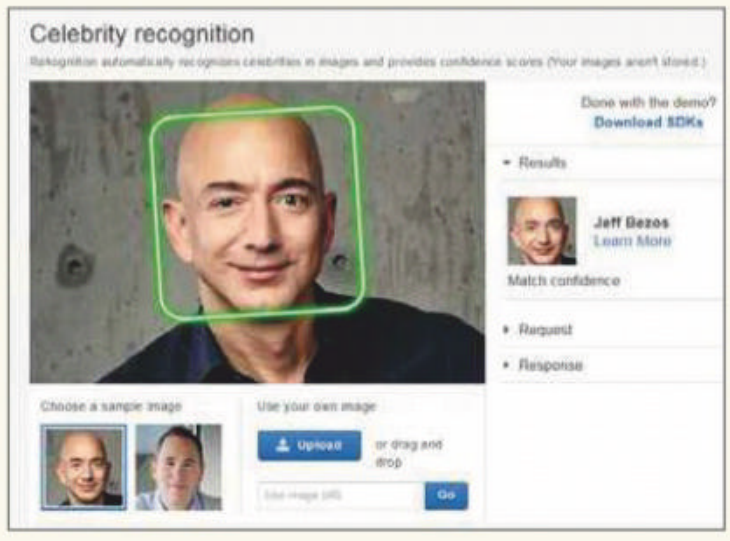
Google automatically blurs faces and car number plates from Street View images, but if it misses one – or you want it to blur something else, such as your house, for example – you can request this. Go to www.google.com/maps, find the problem on Street View, then click the three dots in the address box and click 'Report a Problem'. The next page asks you why you want to report the image, and allows you to request blurring of a face, a home, a car licence plate or any other object.



If you see something compromising on Street View, ask Google to blur it

HOW AMAZON AND MICROSOFT USE FACIAL RECOGNITION

Most people know **Amazon** as an online retailer, but the company is also a major provider of web apps and services, and has been working on a facial-recognition project called Rekognition (bit.ly/reko481). This allows developers to add visual analysis features to their applications, so they can identify objects, people, text, scenes, activities and inappropriate content in photos and videos. The technology proved controversial when Amazon offered it to US police forces and government agencies. The American Civil Liberties Union (ACLU) Foundation described Rekognition as "perhaps the most dangerous surveillance technology ever developed".



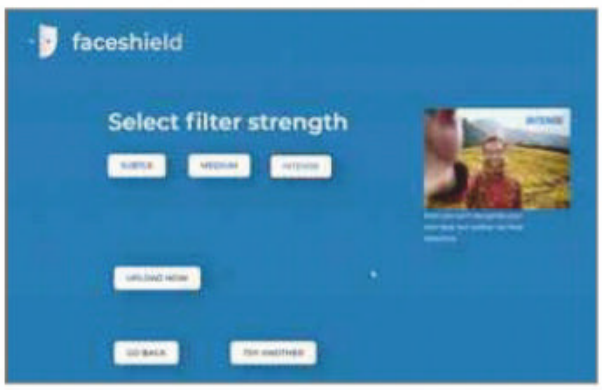
In June, **Microsoft** deleted its MS Celeb database, an enormous public dataset containing 10 million images of roughly 100,000 people, which it and other companies had been using to train facial-recognition systems. The company has also called on US politicians to regulate recognition systems due to their "broad societal ramifications and potential for abuse". What's more, Microsoft is reported to have rejected a request from police to use its technology in car and body cams.

However, despite the apparent change of heart, Microsoft still has an Azure-based facial recognition API called Face, which detects and compares faces in images (bit.ly/face481). Another experiment the company has been running since 2015 is How-Old.net (www.how-old.net), which tries to guess your age – with mixed results.

TRICK FACIAL-RECOGNITION TECHNOLOGY

Tweak images before uploading

Faceshield (faceshield.ai) is a clever photographic filter that adds noise to the facial landmarks in your images, such as your eyes, nose and jawline, which can trick recognition software into thinking there isn't a face there. It offers a choice of three settings: Subtle (which may fool some detectors, but not all), Medium (which fools more, but may have your friends asking questions about your new look) and Intense (even your own mother may not recognise you). To use Faceshield, go to the website, click Upload Photo, select a filter strength, then click Upload Now. Select your image, then download the edited one.



Faceshield tricks facial-recognition software by adding noise to your face

Remove photo tags on Twitter

Go into your account settings in Twitter (bit.ly/twitter481) and select Privacy and Safety. Next to Photo tagging, you can choose 'Only allow people you follow to tag you in photos' or 'Do not allow anyone to tag you in photos'. The latter option is the best choice. If you've been tagged in a photo, open the tweet you feature in, expand the menu in the upper-right corner and remove your tag from the photo.

Don't use photos of your face

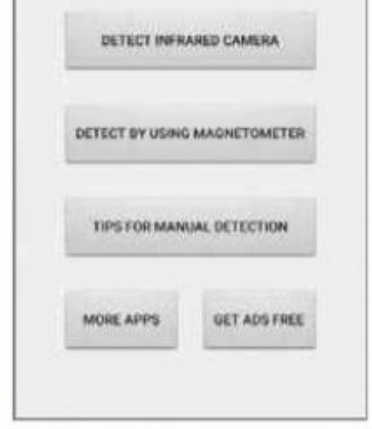
If you have to upload a photo for an online account, it doesn't actually have to be a picture of your face. It could be a pet, or even a cartoon representation of what you look like. The characters made in the Bitmoji app (www.bitmoji.com) are fun, and you can make them look as like or unlike you as you want.

Use a Bitmoji rather than a photo to represent you online

Detect hidden cameras

Using a camera finder – also referred to as a reflection or lens finder – will help you detect and avoid cameras, with the added bonus that you'll feel as if you've stepped into a Jason Bourne spy movie. The way they work is simple enough: they project light, which reflects off any camera lenses in the area, allowing you to see them by looking through the device's own lens. Amazon has an entire section devoted to camera finders at bit.ly/camera481 – prices start at less than £10.

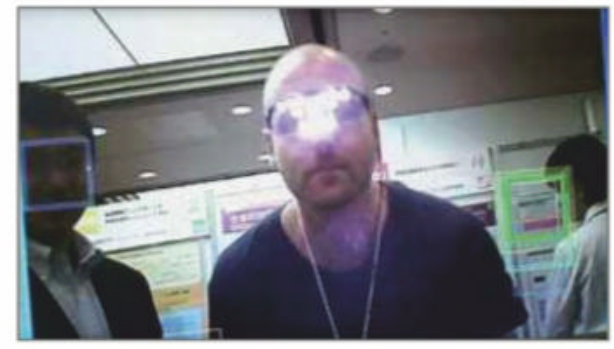
Alternatively, you could install a glint finder app on your phone. These use your phone's LED flash to detect cameras, but the results tend to be pretty poor. Detectify (bit.ly/detectify481) is one of the best free examples for Android.



Detectify alerts you to hidden cameras that may be photographing your face

Wear special glasses or a hat

You can buy hats and glasses that have bright 'near infrared' (NIR) LEDs built in, or make your own. These devices foil cameras by dazzling them so that the resulting images are unusable. They work well, too, but they also make it very obvious to a camera operator that you're trying to avoid being recognised, which is likely to arouse suspicion, making you more conspicuous than you might otherwise be.

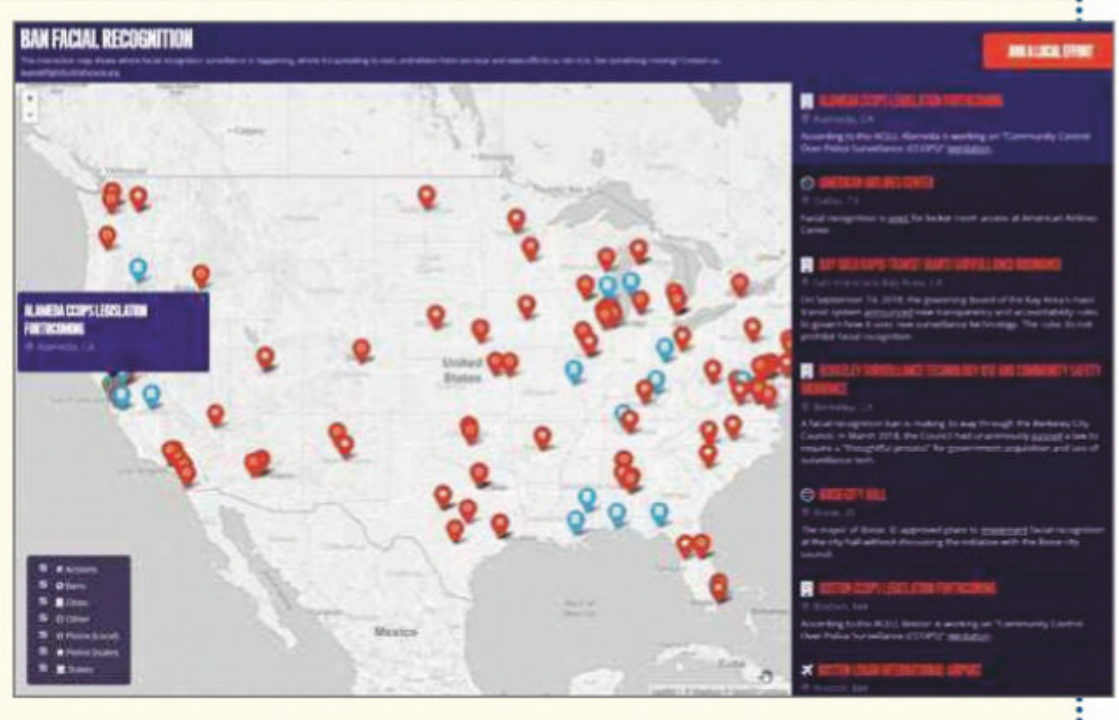


NIR glasses blind facial-recognition cameras to stop them identifying you

BAN FACIAL RECOGNITION

Digital-rights group Fight for the Future has launched an interactive map (www.banfacialrecognition.com/map) that shows where in the United States facial-recognition technology is being used and where it's being resisted. The organisation is crowdsourcing the information and updating the map as new details surface. Although the map covers only the US, it's still very interesting, because understanding how facial recognition is currently being implemented over there will give us some idea of how it is – or could be – used in the UK.

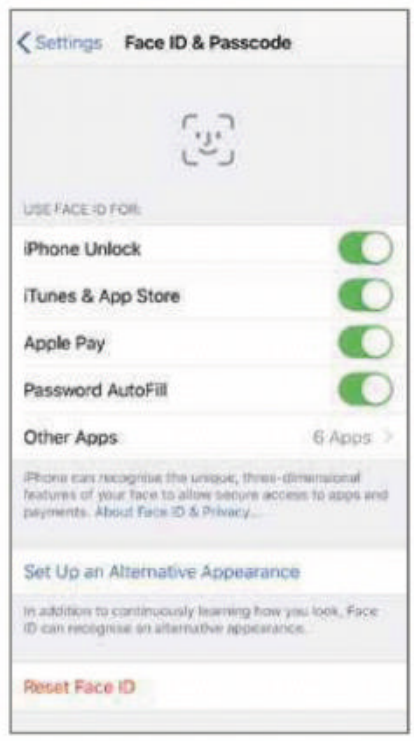
As we were going to press, BBC News reported that MPs were calling for the police and other authorities to stop using live facial-recognition technologies (bit.ly/police481), so resistance is certainly mounting.

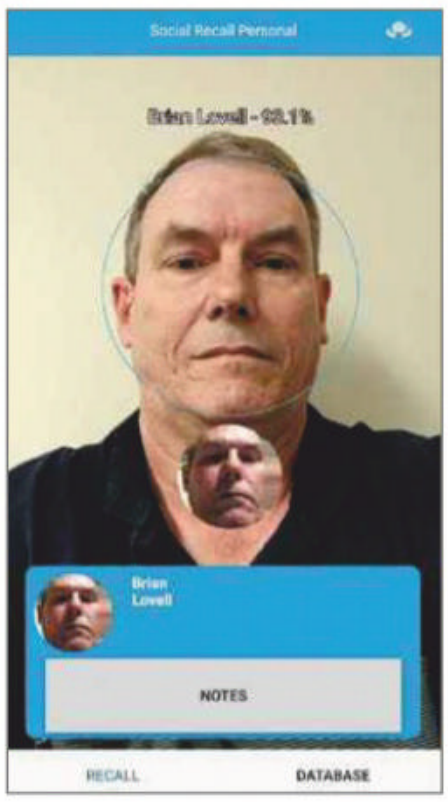


FIVE POSITIVE USES FOR FACE RECOGNITION

1 Face ID and Trusted Face

We used to secure our phones with PIN codes until they were replaced by fingerprint readers, and now many phones let you use your face to unlock your device. Apple's Face ID creates a highly accurate 3D map of your face using infrared (IR) light and image capture. It's so advanced that even disguises can't fool it, and it works perfectly in the dark. Android's Trusted Face feature (previously called Face Unlock) is nowhere near as sophisticated yet and only uses a photo of your face, which Google admits is less secure than a PIN.





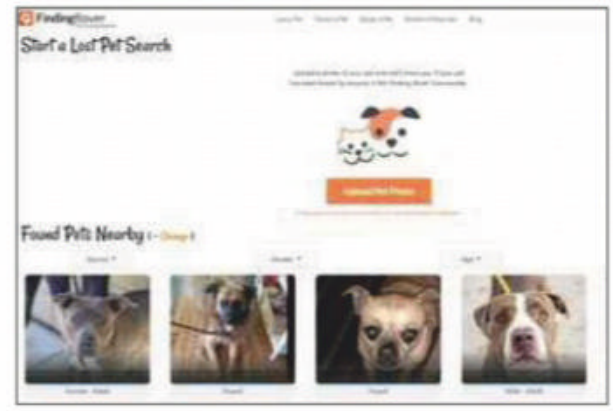
2 Helping the visually impaired

Face recognition can be a real boon to visually impaired people who use screen readers, because it tells them who is in the photos in their Facebook News Feed and other services, even if those people aren't tagged. It can also help people who have Prosopagnosia (face blindness), which means they can't recognise people they know. Apps such as SocialRecall (bit.ly/recall481) can tell you the name of people you've met before, although the free version is limited to just five faces.

3 Finding missing children and pets

Facial-recognition technology is being used to locate missing children, including victims of human trafficking. During trials of a new system last year, police in New Delhi identified nearly 3,000 missing children in just four days. Incredibly, police in China managed to find four children who had been missing for 10 years.

The technology can recognise pets as well as people. Finding Rover (www.findingrover.com) is a pet facial-recognition service that aims to reunite lost pets with their owners. Upload a photo your missing pet and the service will look for matches in photos uploaded by the Finding Rover Community. It's based in the US, so American pet owners are likely to see the best results – the official mobile app isn't currently available in the UK.



4 Making secure transactions

Face Recognition Authentication allows you to access your accounts and make secure transactions using a selfie taken with your phone. The system creates an accurate biometric template from a selfie. Then when you need to authenticate a transaction, you simply take another selfie, which the system compares with the template to give an accuracy score.

5 Stopping toilet paper thieves

Designer and environmentalist Jenny Lin recently wrote on Medium (bit.ly/tpaper481) about her experiences of using a Chinese public bathroom. Something you probably don't know (we didn't) is that these public bathrooms have a theft problem – toilet paper is stolen from them all the time. To combat this menace, a number of bathrooms have installed toilet paper dispensers with built-in facial recognition. This scans your face before dispensing some sheets of toilet paper. If you then return for more within nine minutes, it recognises you and denies the request. ■

NEXT ISSUE on sale Wednesday 21 August 2019

SWITCH TO OPEN-SOURCE SOFTWARE

Ditch outdated and overrated programs for superior free alternatives

PLUS...

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- BOOT ANYTHING FROM USB Run multiple operating systems from a USB stick
- EXPOSE WI-FI INTRUDERS Best free tools for monitoring your wireless home network

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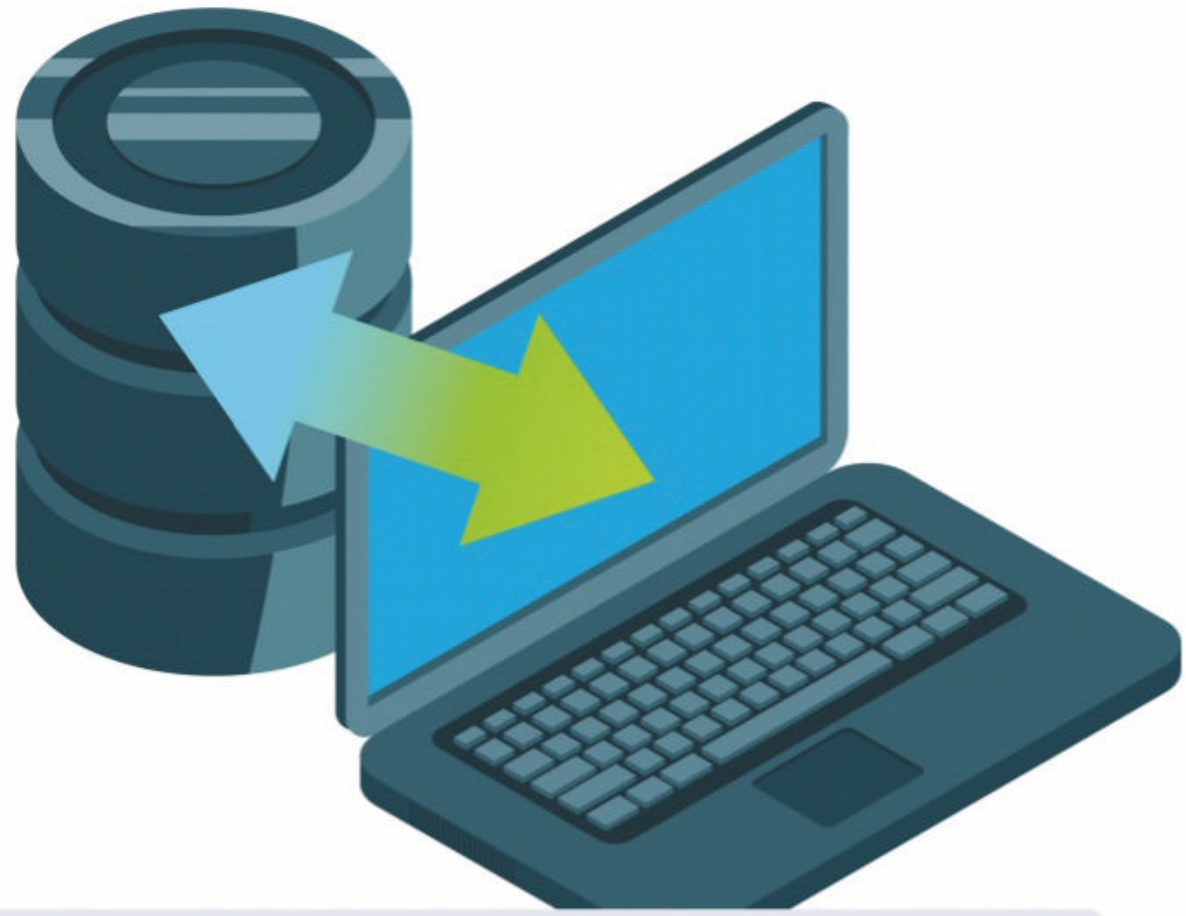
Best free backup software

Backing up your PC is boring, repetitive, easy to forget and yet one of the most important tasks you should perform regularly. **Andy Shaw** compares the six best free options to help streamline this essential chore



EaseUS Todo Backup Free | bit.ly/ease481 | ★★★★★

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

WebUser GOLD AWARD

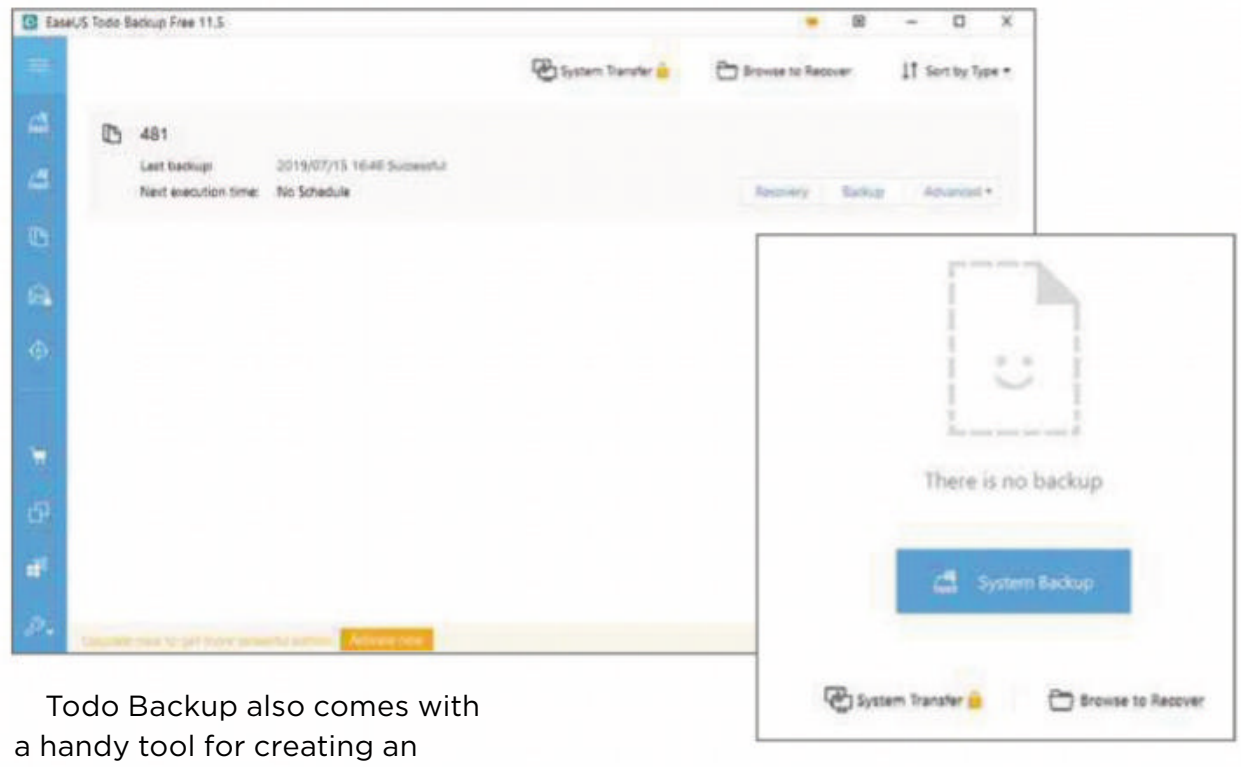
What we liked:

All the award-winning free backup programs we've reviewed here are trimmed-back versions of paid-for tools. However, EaseUS Todo Backup has kept the essentials: a whole-drive backup, a system backup (so you can reinstate Windows if something goes wrong) and a more selective standard file and folder backup.

One notable omission is a tool for transferring your system from one hard drive to another – if you were planning on upgrading to an SSD, for example – but since this isn't an everyday job, it's absence isn't too serious.

The interface is very slick, starting with a large icon that tells you there are no backups present, then buttons to either start a backup or restore one from somewhere else. If you choose to initiate your first backup this way, it'll take you through the process of making a full backup of your whole hard drive.

If you prefer, you can explore the other options first, accessing all the software's tools from a column of icons down the left-hand-side. This way, you can choose a more selective backup and set the frequency from Daily, Weekly or Monthly.



Todo Backup also comes with a handy tool for creating an emergency bootable disc that can get you going as soon as possible if the worst comes to the worst and your PC stops responding.

How it can be improved:

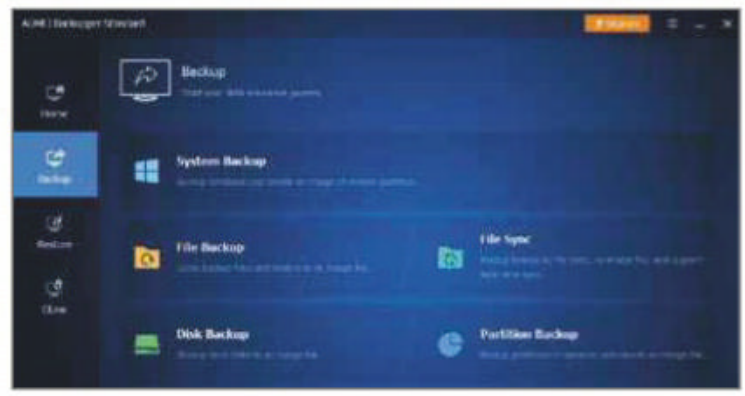
Our main niggle with EaseUS is that you need to be careful as you download it because it's far too easy to make a mistake and install a trial of the paid-for version instead of the completely free one. Once you're using it, you'll see options displayed with a padlock that can only be accessed if you upgrade, which also feels like you're being hassled to get the paid-for version.

OUR VERDICT

Todo Backup has to resort to badgering you into getting the paid-for version because this free one is more than sufficient to keep your PC backed-up for years to come. It's missing a few handy tools but nothing that hampers its everyday usefulness.

Aomei Backupper Standard | www.backup-utility.com

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



What we liked:

Backupper has a brilliant interface that divides its tools between two main buttons: one to back up and the other to restore. Further icons and menu buttons around the edge of the screen let you delve deeper, but all the options are well presented, with a coherent interface that uses both icons and explanatory text to help guide you through.

The program's tools let you choose from a whole-system backup, which secures Windows and creates an image of your PC in its current state; or a number of more focused alternatives, from entire partitions to individual files and folders. There's also a File Sync option, though this only works once per hour in the free version.

There's a useful Clone option for making an exact copy of a drive but – as with the Gold Award-winning EaseUS program – you can only keep this as a backup because the tool for transferring it to another drive is only available in the paid-for version.

How it can be improved:

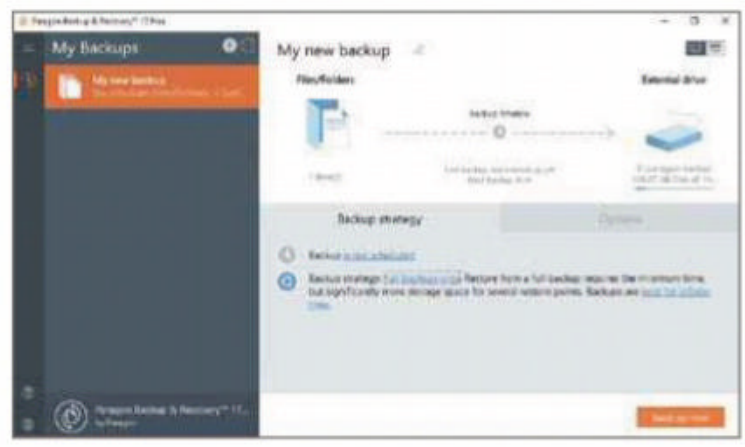
At least EaseUS displays a padlock on tools it keeps behind its paywall. With Aomei, you have to click a tool before you see a pop-up window saying the action can't be performed.

OUR VERDICT

Aomei is hot on the heels of EaseUS, with a brilliant core backup toolkit that offers most of the options you need for free. The interface isn't quite as slick, though, and it's harder to know which tools are unavailable.

Paragon Backup & Recovery Preview | bit.ly/para481

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



What we liked:

Paragon's free software is thorough from the moment it starts, immediately sending you a suggestion to create recovery media. The well-designed interface uses large icons to perform tasks: click the Source button, for example, to select what you want to back up, then click a destination. You can choose to back up everything connected to your PC, just a selection of drives and partitions, or individual files and folders. Files can be selected manually or by type.

As you fill in details, further options open on screen, which feels intuitive. Many of the tools are given sentence-long explanations rather than icons or vague headings, and options are then presented like links on a web page, so if you want to perform an action or a customisation, you just click the link to be taken to the corresponding configuration screen.

How it can be improved:

We used a relatively small backup for our tests, but Paragon took a long time to get going. It also doesn't have the breadth of backup tools that the other award-winners offer.

OUR VERDICT

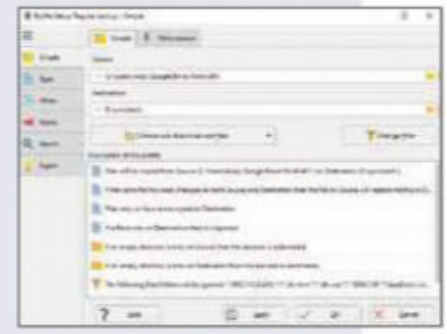
We like Paragon but it ran slowly on our test PC. This is a shame, because we loved the way the software was presented, responding to the user as options are selected and configured.

BEST OF THE REST

SyncBackFree

bit.ly/sbf481

SyncBackFree doesn't have the professionally designed interface of our award-winning backup programs. Instead of slick and simple buttons, it uses a more utilitarian system, essentially breaking down into a list of backups with a wizard to help you set them up. While this initially looks sensibly organised, the options and questions quickly become overwhelming. Despite its name, SyncBackFree only offers what it calls 'basic synchronization' in the free version, so you can't sync files between more than two devices.



NCH FileFort

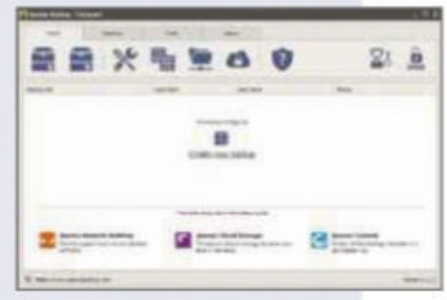
bit.ly/fort481

FileFort starts working instantly, setting up your first backup as soon as you've installed it. However, it shows its age when offering to back up 'My Documents' and 'My Pictures' (Windows Vista dispensed with the 'My'), and could do with a refresh of its terminology. You can use it to create a standard set of backups and store them as compressed files in either its own format or others, but the minimum schedule offered is daily.

Iperius Backup Free

bit.ly/iper481

Iperius looks simple enough at first glance, but click the option to create a backup and you're inundated with tabs, menus and pop-out options. You can methodically work your way through them, and advanced users might appreciate that it's not hiding anything, but it isn't as simple to use as other backup programs.



Block ads EVERYWHERE

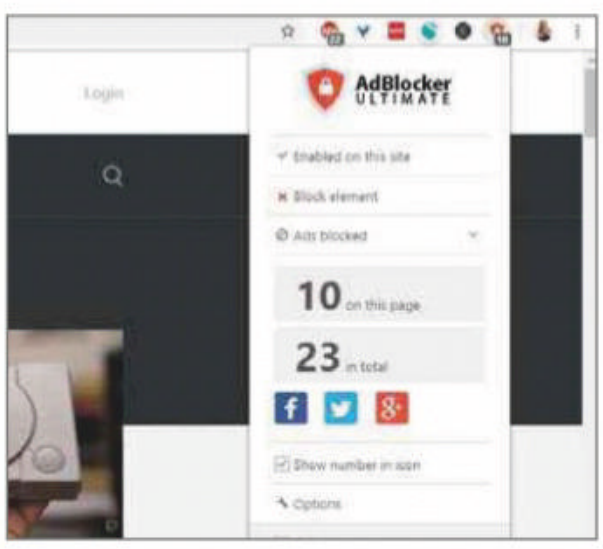
Adverts are invading more areas of your digital life than ever, from podcasts to voice assistants. **Jane Hoskyn** reveals how to filter these annoyances on any device

Block all online ads without exception

An ad blocker is one of those tools you only notice when it's gone. Whether you use market leader Adblock Plus (adblockplus.org), its lightweight rival uBlock Origin (bit.ly/ublock481) or some other browser-based ad annihilator, that little extension has probably made you forget how infuriating, slow and invasive the web can be when you're inundated with commercials.

But chances are you still see some ads. Adblock Plus, which is the easiest mainstream ad blocker to use, allows certain 'non-intrusive Acceptable Ads' by default – reportedly because the advertisers pay for the privilege.

Rather than mess around tightening Adblock Plus's settings, go for a zero-tolerance ad blocker instead. AdBlocker Ultimate (adblockultimate.net) blocks all ads and trackers by default, and strictly refuses to accept payment from any advertisers. Like all the extensions we mention here unless stated, AdBlocker Ultimate is free for Chrome and Firefox, and also works with Opera, Edge and Safari.



Block the ads other ad blockers leave behind with AdBlocker Ultimate

Switch to an ad-free mobile browser

Chrome is not the ad blocker's best friend, as you'll know from our cover feature in Issue 479 (bit.ly/webuser479). It's much harder for tools to block ads in Chrome for Android – where it's now the default browser – than on desktop, because Google uses encryption and randomly generated Hosts files that stop filters detecting ads.

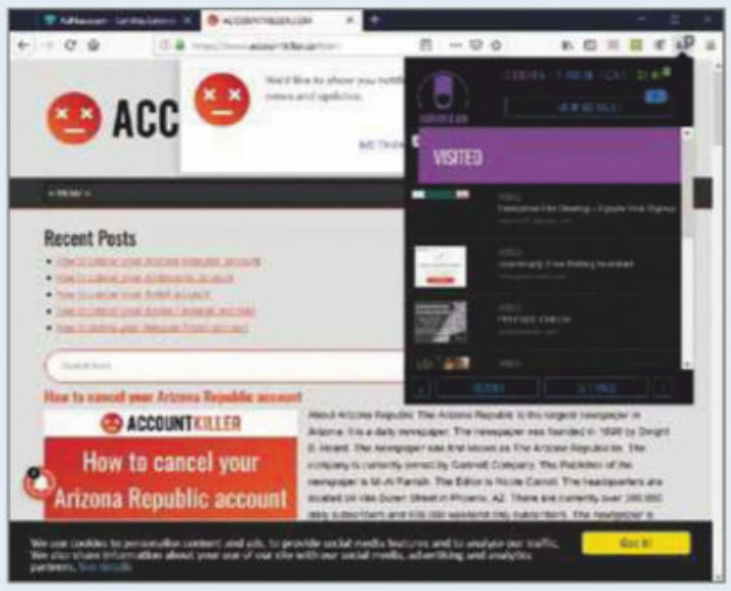
So instead of wasting your time with an ad-blocking app that claims to work with Chrome, switch to a browser app that does the ad-blocking all by itself. Open-source app Brave Privacy Browser (Android, iOS, www.brave.com) is built on the Chromium engine but is faster and cleaner than Chrome. All ads and pop-ups are blocked automatically by default (tap the lion icon to see what's blocked). With another tap, you can block all cookies, trackers and scripts, and enable encryption enforcer HTTPS Everywhere, for any site.

Firefox Focus (Android, iOS, bit.ly/focus481) automatically blocks ads that use trackers, but there's no option to block all ads. AdBlock Browser (Android bit.ly/adblockdroid481, iOS bit.ly/adblockios481) – based on Firefox code and made by the AdBlock Plus team – is more robust but only if you untick 'Allow some non-intrusive advertising' in the app's settings (go to

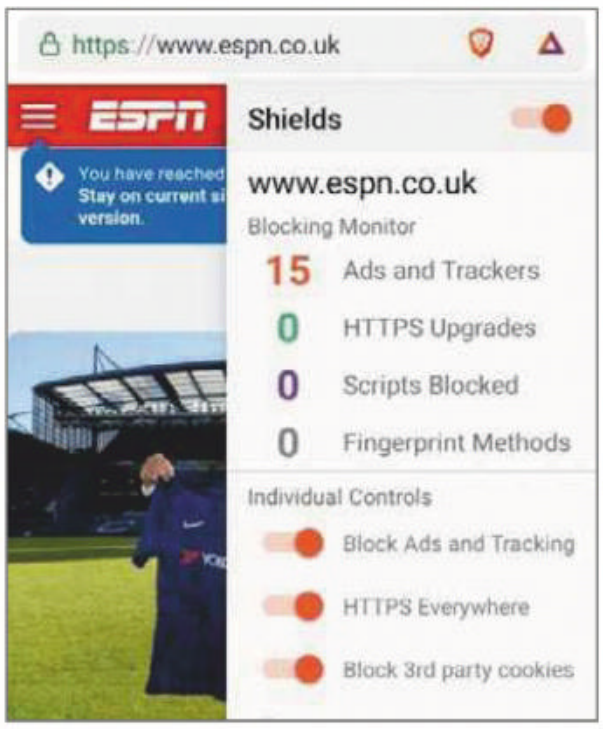
DON'T BANKRUPT YOUR FAVOURITE SITES

Adverts help pay for free web content. If only there was a way to block them without cutting off the cashflow to the sites we love, eh? Well, there is.

Open-source extension AdNauseam (adnauseam.io) is based on uBlock Origin and clicks every ad it blocks, so a 'visit' is registered with the advertiser. You can even see these visits happening in real time when you click the extension's icon. So ads are hidden, trackers are deflected away from you and the ad-hosting websites still get the money they're promised. Everybody's happy.



Well, everybody except Google, that is, which kicked AdNauseam off the Chrome Web Store and failed to explain why. You can still install it via GitHub using Chrome's 'Developer mode', if you're patient (bit.ly/adnchrome481), but your best bet is to ditch heavy-handed Chrome and use AdNauseum in Firefox (bit.ly/adnfox481) or Opera (bit.ly/adnopera481) instead.



Brave blocks all ads and trackers, as well as scripts, cookies and unencrypted sites

'Ad blocking', Acceptable Ads).

For Safari devotees, paying £4.99 for iOS app 1Blocker X (bit.ly/1blocker481) is money well spent. It integrates with Safari's code, telling it to block ads, pop-ups and trackers. You'll need to enable it via the Settings app first, under Content Blockers, where you can enable up to seven rules that include Block Adult Sites, Block Comments and Custom Rules, as well as Block Ads.

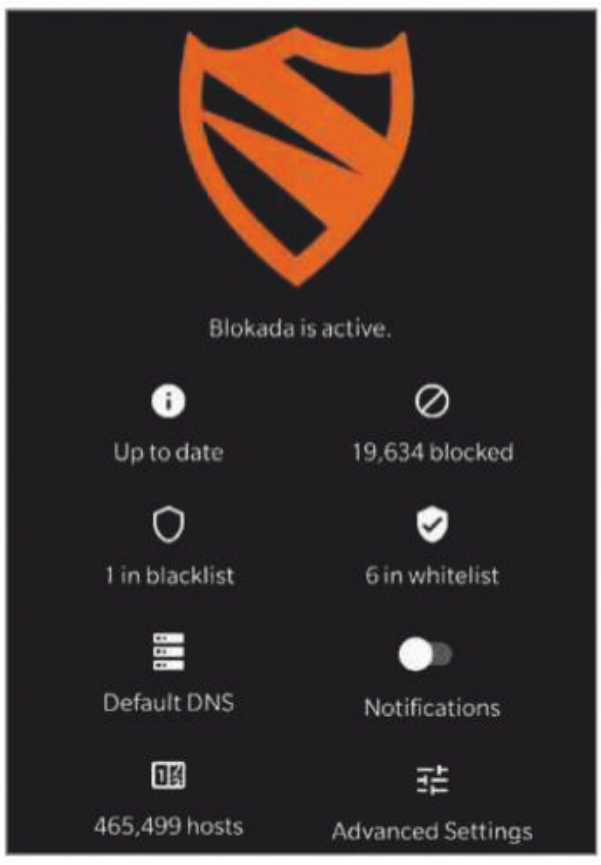
Abolish ads from apps – without paying

Google doesn't like apps that block ads across your Android device, so you won't find them in the Play Store. For example, the excellent Blokada needs to be downloaded via blokada.org (or third-party app store F-Droid, bit.ly/blokada481). To install the APK (app file) you will need to enable 'unknown sources' in your Android settings.

It's worth the hassle, though. Blokada uses a VPN to block any ad requests directed at your device's hosts file – from apps, browsers, games, emails, messaging services and more – then bounces them to a blank IP address. You can whitelist domains that you don't mind allowing through the filter.

AdGuard (https://adguard.com) is similar but less Android-centric, and has versions for Windows and iOS, too. You can whitelist apps, customise filters and cut off certain apps' internet access completely.

AdGuard Pro for iOS (£1.99, bit.ly/adguard481) offers more system-wide ad blocking than 1Blocker X, but thanks to Apple's constraints, it won't cut as much clutter as the Android version.



Fend off ads and trackers from Android apps and games with VPN-based Blokada

Blitz those 'don't block' pop-ups

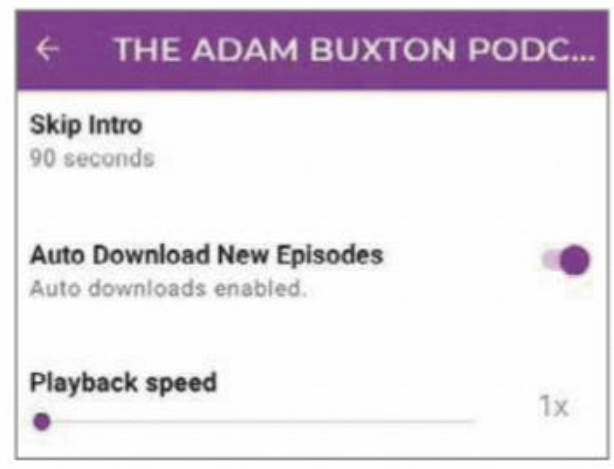
"It looks like you're using an ad blocker" simpers the weeping kitten, getting in the way of the article you want to read. Some of these 'overlay' messages have a 'continue with ad blocker' option while others act like officious border guards, refusing to let you through unless you allow adverts.

The handy extension BehindTheOverlay (bit.ly/behind481) lets you fight back with one click. If you see a 'please whitelist us' pop-up, click the BTO toolbar icon and the pop-up will disappear. It hasn't been updated in a couple of years but we found it perfectly efficient, acting as extra muscle for your existing ad blocker.

BehindTheOverlay will gently dismiss the kitten when sites pile on the guilt

Skip annoying ads in podcasts

New app Podcast Guru (free for Android, bit.ly/guru481) describes itself as 'A No Ads Player', but don't get too excited – it can't automatically remove ads from podcast episodes. The app itself is, however, ad-free, and it lets you dodge ads by setting a 'Skip Intro' time for each subscribed podcast. Measure



Set a Skip Intro time of 90 seconds in Podcast Guru to dodge the intro ads

ALEXA, STOP TRYING TO SELL ME THINGS

One day you'll say to your Amazon Echo: "Alexa, remind me to buy cat food" and it'll shoot back: "OK, may I recommend Whiskas? Special offer at Asda."

It's bound to happen.

Last year, Google was caught dropping an ad for the film *Beauty and the Beast* into Google Home and Assistant. Users were furious and Google backtracked (bit.ly/beast481), and now Google and Amazon are both denying plans to include advertising on their personal assistant platforms.

Yet it feels inevitable. After all, streaming services such as Roku and even the BBC iPlayer already display house ads that are nigh-on impossible to bypass (we tried), and ads have long been allowed on the Amazon Fire. You can tackle them, but only by enabling developer mode, installing an Android command-line tool and running a frankly terrifying BAT file called Amazon Ad Remover (bit.ly/amazad481).

If personal assistants do end up becoming the next advertising battleground, we'll be looking to system-wide ad blockers such as AdGuard (adguard.com) to keep the commercials out of our homes.

Watch this space.

Block ads everywhere

Overcast podcasts treat listeners to chapter markers – ideal for skipping ads

the seconds you need to skip in an average episode of that podcast, then go to Library, tap the podcast's thumbnail, tap the 'adjust' icon and then enter a Skip Intro time in seconds.

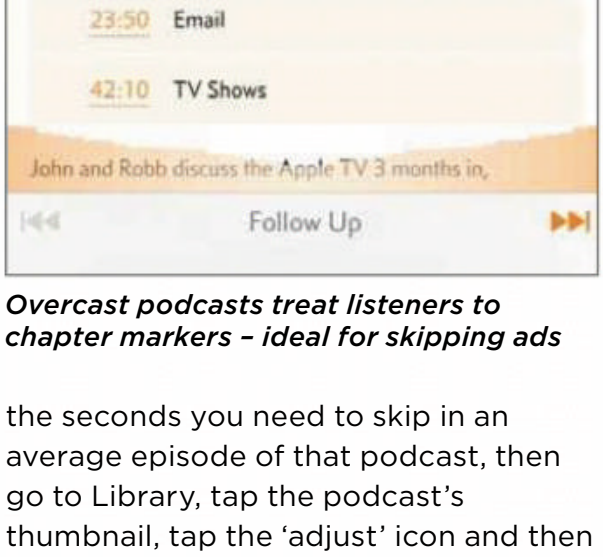
Podcast Guru also lets you skip forward 30 seconds with one tap when playing an episode (ideal for zooming past ads), as do Acast (www.acast.com) and Castbox (castbox.fm), both free for Android and iOS.

The iOS-only app Overcast (overcast.fm) adds innovative chapter markers created by the podcast maker using tools such as Chapters (chaptersapp.com). Some generously include markers for the end of the ads, so you can skip with precision. On iOS 12 you can now choose your own custom skipping times for the Podcasts app, going up to 60 seconds.

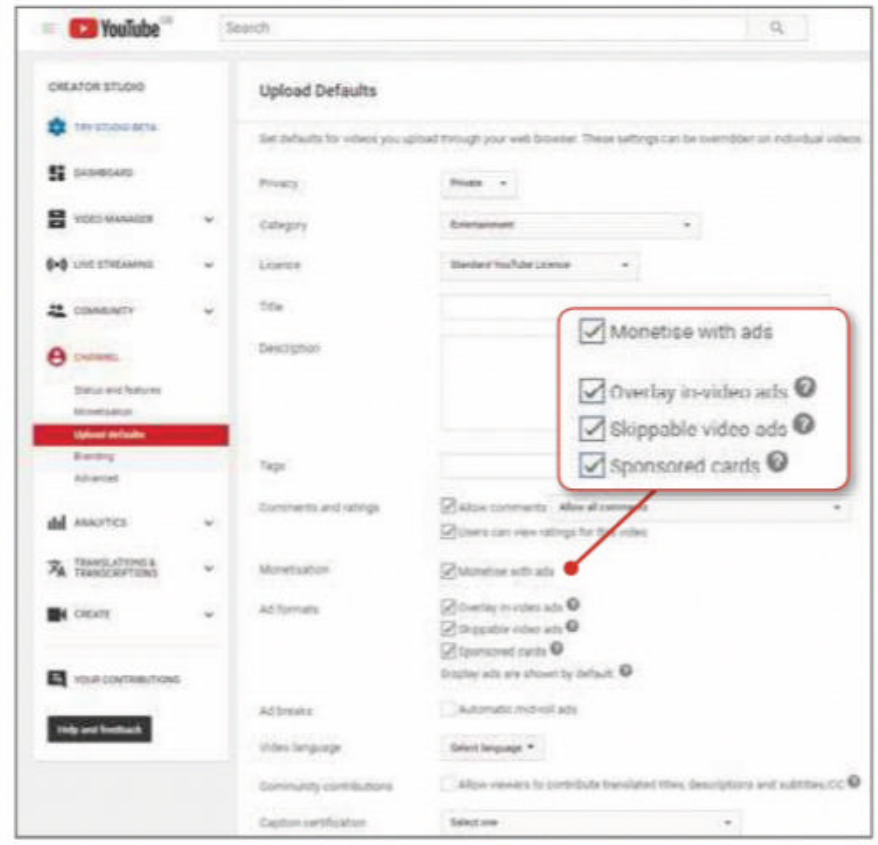
Block ads in Skype and uTorrent

The Windows edition of AdLock (adlock.com) obliterates ads from all your installed browsers and other internet-connected software, such as video chat programs and peer-to-peer download tools. It's easy, efficient and customisable, but not free – it costs €16 (£14.40) per year after a 14-day trial. However, if you use Skype regularly, that's not a bad price to pay to get rid of its increasingly irritating ads.

AdLock can't block ads in absolutely every internet-connected program on your PC, though. If you're a confident computer-tweaker, you can get closer to that goal by editing your computer's Hosts file so that it redirects specific ad requests into oblivion. It's hardly the easiest approach, but it gives you ultimate control without the need to install yet more browser tools. Follow the steps at bit.ly/hosts481, or make it a little easier with an editing tool such as HostsCK (redisoft.uk).



AdLock eradicates ads from desktop programs including the ad-riddled Skype



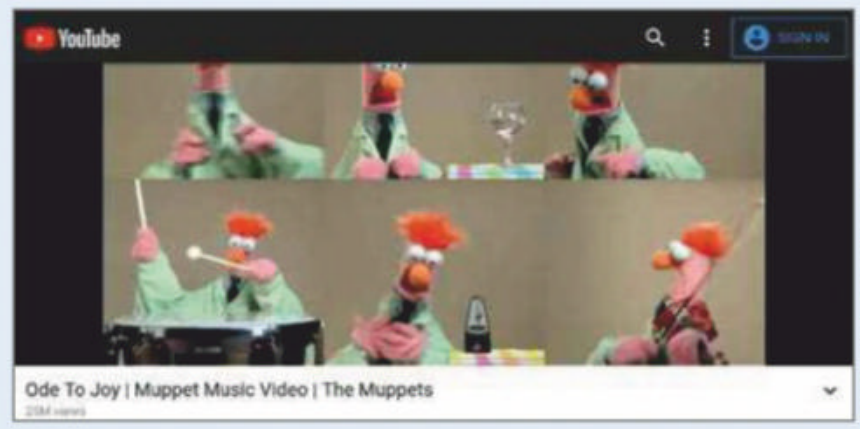
YouTube plasters your own uploaded videos with ads and doesn't pay you the funds by default

Remove ads from YouTube videos

AdBlocker Ultimate (adblockultimate.net, see previous page) will efficiently blitz the ads that YouTube plasters on top of videos when playing, and skip the ones it wants you to sit through before a video starts. If for some reason you want to block ads in YouTube only, then use a YouTube-specific tool such as Video Adblocker (bit.ly/vidblock481).

You may not realise that YouTube earns income from the ads it sticks on your own uploaded videos by default, but you can stop this, too. Click your profile photo then Creator Studio (or 'YouTube Studio beta' then Creator Studio Classic), open the Channel drop-down menu and then click 'Upload defaults'. Untick 'Monetise with ads', 'Overlay in-video ads', 'Skippable video ads' and 'Sponsored cards' – all of which are enabled by default – then click Save. ■

WATCH YOUTUBE AD-FREE ON YOUR PHONE



It's much harder to clear ads from YouTube's mobile app than its website. Even the mighty system-level Blokada (blokada.org, see previous page) admits that it struggles, blaming Google's determination to beat ad blockers.

Blokada recommends using a modified version of the YouTube app such as YouTube Vanced, which has ad-blocking built in. Download the APK from vanced.app.

An easier option is the new app Stremio (Android, iOS, www.stremio.com), which is effectively a YouTube client that lets you create playlists from third-party streaming services (although there's little other than YouTube if you're in the UK).

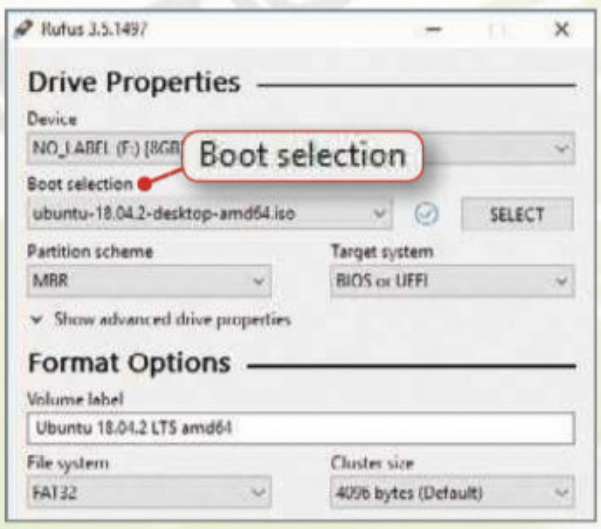
Our preferred fix may sound like a cop-out but it's easy and works: ditch the app and load YouTube in the Brave mobile browser, which automatically rids YouTube of all ads, even if you're not signed in.

Repurpose your memory cards

Don't bin your old SD cards. **Robert Irvine** reveals five clever new uses for the tiny removable media

Run a portable operating system

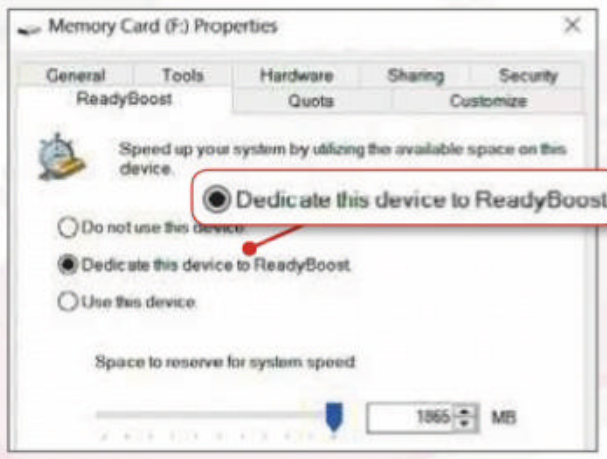
As we explained in our 'Run anything from a USB stick' cover feature in Issue 477, you can install Linux on a USB stick to boot a portable operating system wherever you go. The same trick applies to SD memory cards, if they offer enough capacity (at least 4GB is recommended) and your PC has a memory-card slot or USB card reader. Download or create an ISO file for the Linux distro you want to install, run the free tool Rufus (rufus.ie) and insert your SD card. Select 'Disk or ISO image' in the 'Boot selection' menu, click Select and choose the ISO file (you may need to search for 'All files' to find it). Ensure that FAT32 is selected in the 'File system' menu and 'Quick format' is ticked under 'Show advanced formatting options'. Click Start, then 'Write in ISO image mode' and Rufus will format your memory card and install the Linux distro.



Use Rufus to install a bootable version of Linux on an SD card

Boost your PC's memory

If your PC often struggles with resource-heavy activities such as gaming and video editing, you can use an SD memory card for extra RAM, thanks to a built-in Windows feature called ReadyBoost. Insert the card in the relevant slot on your computer, then open Computer or This PC (depending on which version of Windows you're using), right-click the card's drive icon and choose Format. Select NTFS from the drop-down 'File system' menu, then click Start to format the card. Once formatting is complete, right-click the drive icon again, choose Properties and click the ReadyBoost tab. Select the option 'Dedicate this device to ReadyBoost' to use the maximum available space for speeding up your PC, then click OK.



Speed up your PC by using an SD card to increase its memory

You may see a message saying 'This device can not be used for ReadyBoost' because your computer is already fast enough. Although you can override this by tweaking the Registry, it may prove more trouble than it's worth!

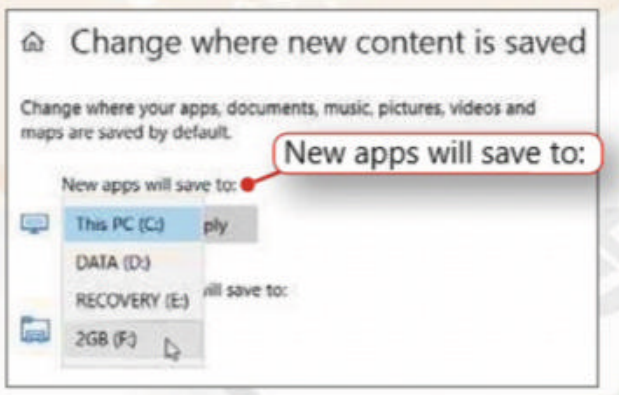
Download maps to browse offline

Saving photos, videos and music to an SD card (whether micro or standard size) frees up valuable space on your phone, but it's equally useful to download maps to the card, so you can browse them even when you lose your internet connection. To do this in Google Maps, first tap the three-line menu icon in the top-left corner and choose 'Offline maps'. Press the settings cog in the top-right corner, select 'Storage preferences' and choose the 'SD card' option. Search for the location you want to explore offline, then press the white taskbar at the bottom of the screen and choose Download. Swipe and pinch within the blue rectangle to select the desired area, then tap Download. You can search the downloaded map and get directions from one point to another, just as you would online.

Store portable programs and apps

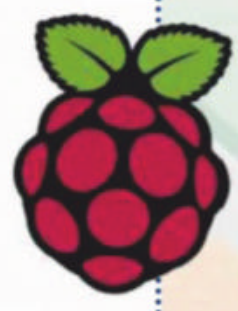
As with a USB stick, you can store portable versions of your favourite programs on a formatted SD card by downloading the PortableApps.com suite (portableapps.com). Install the software on your card and choose from hundreds of popular tools.

You can also save Windows apps from the Microsoft Store directly to your SD card. Open Settings from the Start menu and choose System, Storage, 'Change where new content is saved'. Click the drop-down 'New apps will save to' menu, select your SD card's drive and click Apply. To move apps you already have installed, go to Settings, System, Apps, choose an app and click the Move button. ■



Save space by downloading Windows apps to your memory card

RASPBERRY PI SETUP



An SD card is an essential requirement for setting up the Raspberry Pi mini computer. You need to format the card on your desktop PC or laptop, then download and install the NOOBS software from the Raspberry Pi website (bit.ly/noobs481). The latest model, the Pi 4, uses a Micro SD card, so you may need a Micro SD-to-SD card adapter, or a Micro SD-to-USB adapter if your PC doesn't have the right slot. See our Weekend Project on page 58 for full instructions.

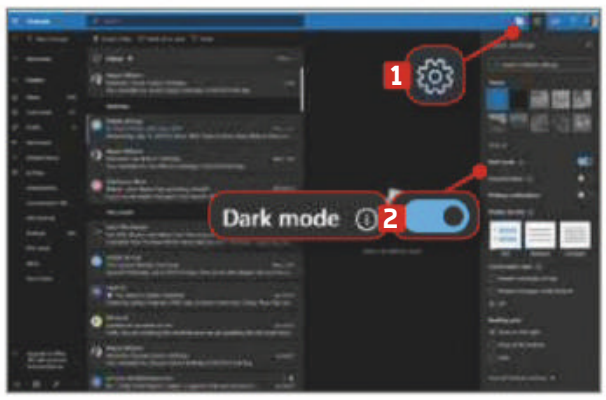
Try Outlook.com's best new tools

Microsoft's webmail service, Outlook.com, has just been updated with a wealth of useful new features. Here's what you need to know

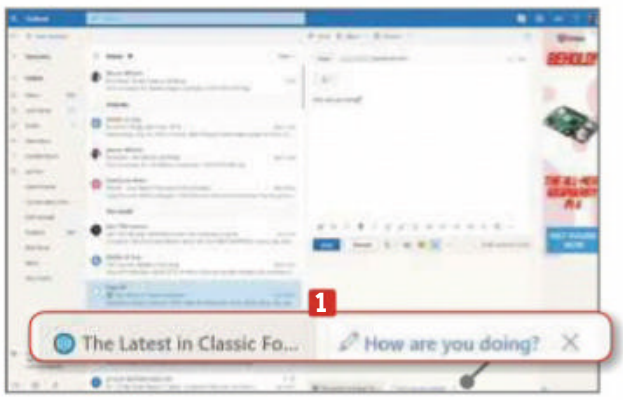
Outlook.com: Outlook.com | 20 mins | Any browser

Outlook.com has never had the range of features you get in Gmail but Microsoft has been busy trying to address this. After eight months of testing, the software giant has at last deemed its new interface ready to be unleashed. If you didn't opt into the beta, you can expect the new update to arrive shortly, if it hasn't already.

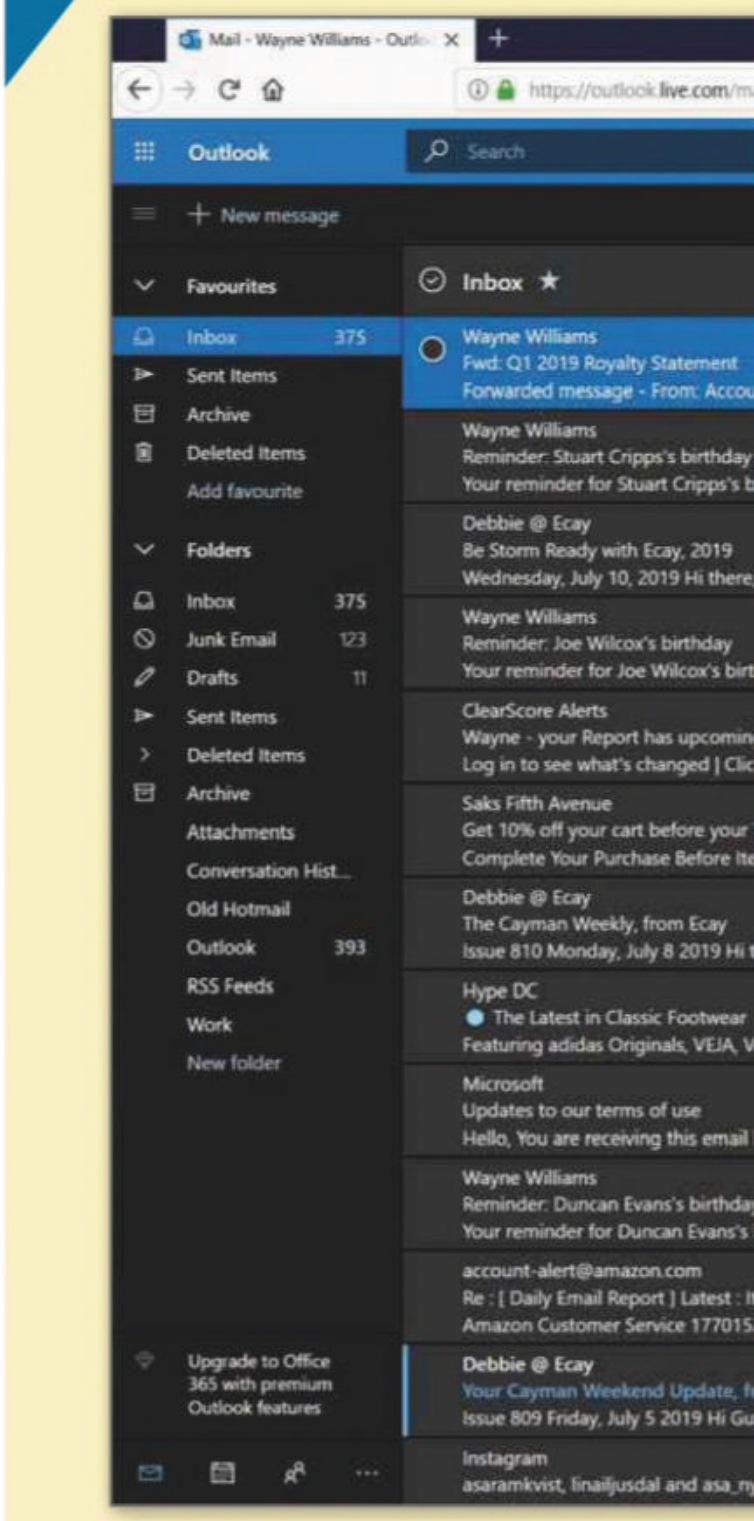
The list of new features is comprehensive and includes a dark mode, tabs, the ability to snooze emails, time-management tools, favourites, expressions and categories. Most of the new features are for email users, but there are some additions for those who use Outlook.com's calendar and meeting components, too.

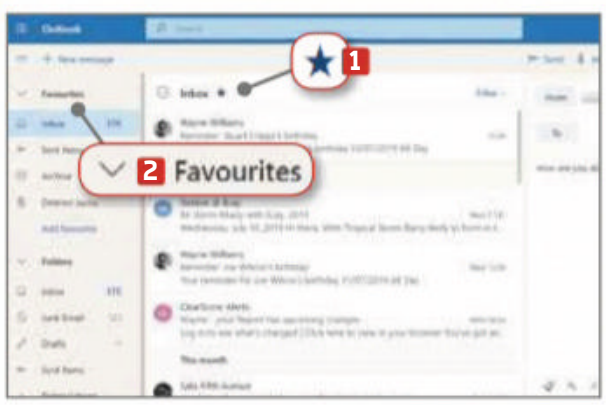


1 A lot of programs and web services now offer a dark mode, so it's inevitable that it's come to Outlook.com. Microsoft says it's useful for those times when your eyes are tired, but it can be enabled at any time if you just like the look. Click the Quick Settings cog **1** and toggle 'Dark mode' to On. **2**

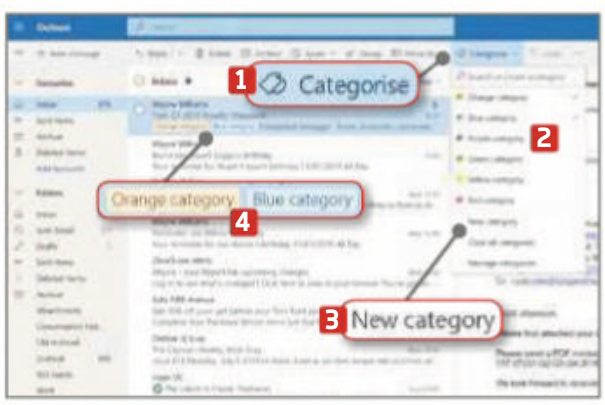


2 One of the most useful additions is the introduction of tabs, which makes it easy to switch from writing emails to reading them. Each new task appears as a tab at the bottom, **1** and you can click the one you want to quickly switch from one to another.

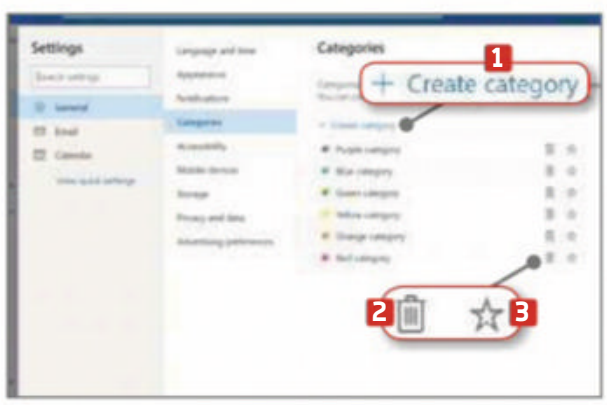




3 The Favourites option lets you prioritise anything important, including contacts, groups and categories. This provides easier access, and shows you the message count for each favourite. Select an item and click the star **1** to favourite it. Expand the Favourites section **2** to access them.



4 Keep your messages tidy by using the new Categories feature, which lets you tag, organise and find emails. Select a message, then click the Categorise button. **1** You can choose one of the preset categories **2** or create a new one. **3** A Category tag appears on the message. **4**



5 You can add multiple categories to a message. Untick a tag to remove it or click Manage Categories to organise them. In the Settings page that opens, you can create a new category, **1** delete an existing one, **2** (it will be removed from all the messages you've added it to previously) or add it to your favourites. **3**

THEMES

You can change the Outlook.com theme in Quick Settings, but you'll find that most of these don't currently work with the new Dark Mode

EXPRESSIONS

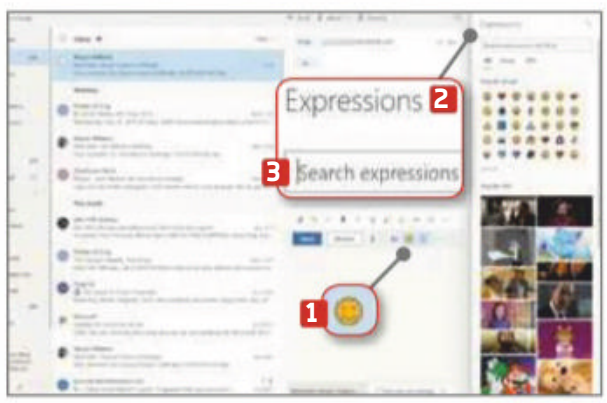
The Expressions bar lets you switch between All, just Emoji or just GIFs, and explore the popular choices. Click one to add it to your message

CONTEXT MENU

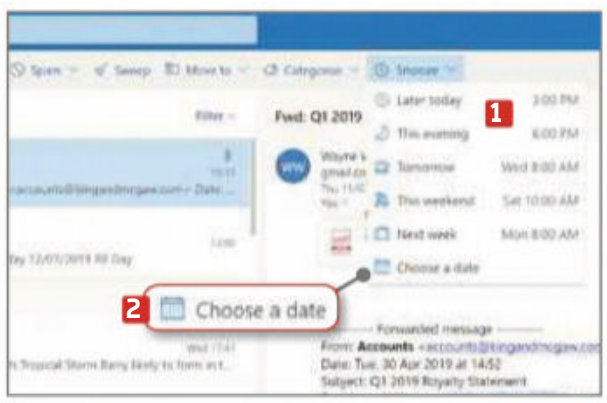
Right-click a message to bring up a menu of options, including Categorise

DISPLAY DENSITY

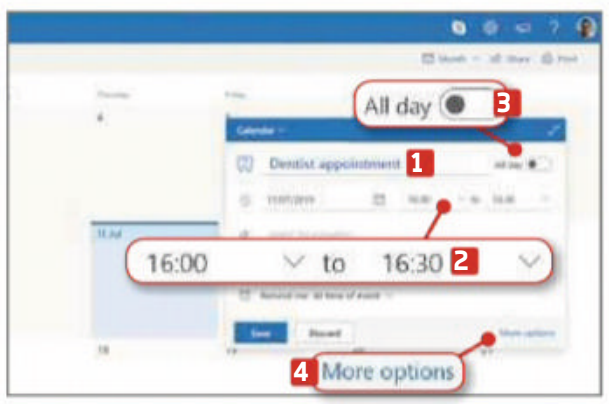
Outlook.com offers a choice of three display densities – Full (with photos next to contacts), Medium and Compact



6 Expressions lets you spice up your messages by adding emoji and GIFs directly from within Outlook.com. Compose a message or a reply, then click the smiley face under the compose window 1 to open the Expressions panel. 2 You can search for whatever you're looking to add. 3



7 If you don't have time to respond to an email but you don't want to lose track of it in a crowded inbox, use the drop-down box to snooze it. Select a preset time 1 or create your own. 2 When you snooze a message, it vanishes from your inbox and reappears as an unread email at the set date and time.



8 To switch to the calendar, simply click the icon in the bottom-left corner. It's now easier than ever to create events. Click a date and enter a title, 1 then input the start and ends times, 2 or set it as an all-day event. 3 Click 'More options' 4 to add people to the event.

Customise the Windows 10 Start menu

Windows 10: bit.ly/windows481 | 20 mins | Windows 10

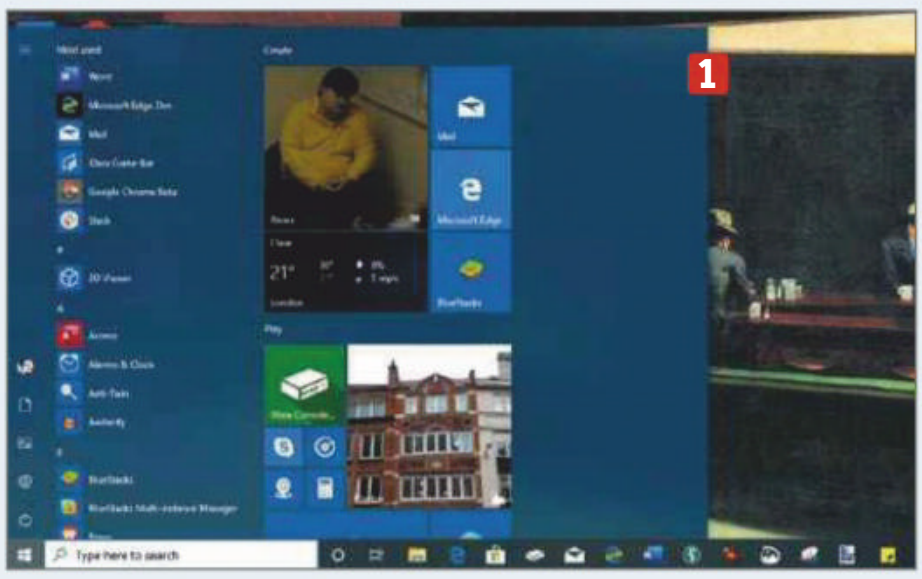
It's fair to say that the fortunes of the Windows Start menu have been mixed – from its high point in Windows 7 to its controversial removal in Windows 8. After a hesitant reintroduction in Windows 10, which seemed to err more on the side of bad than good, the Start menu has finally found its stride.

These days we expect to be able to personalise everything, and the Start menu is no different. A recent update has given us a lot more control over how Start looks and performs. These personalisation options range from tweaking the colours to diving into the Registry Editor and making some much needed changes to the menu's layout. As ever when editing the Registry, make sure you back up your PC before you start.

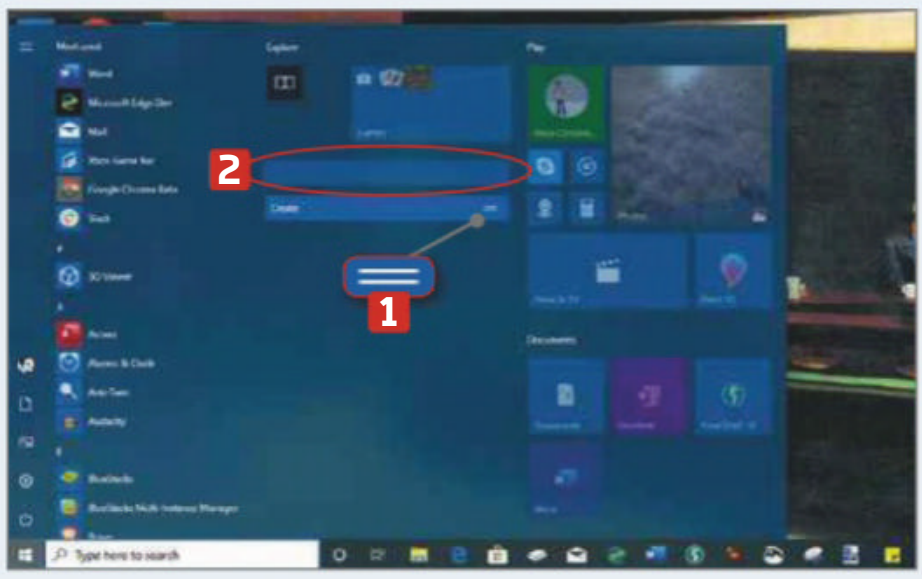
EXPERT TIP

Steve Clark says

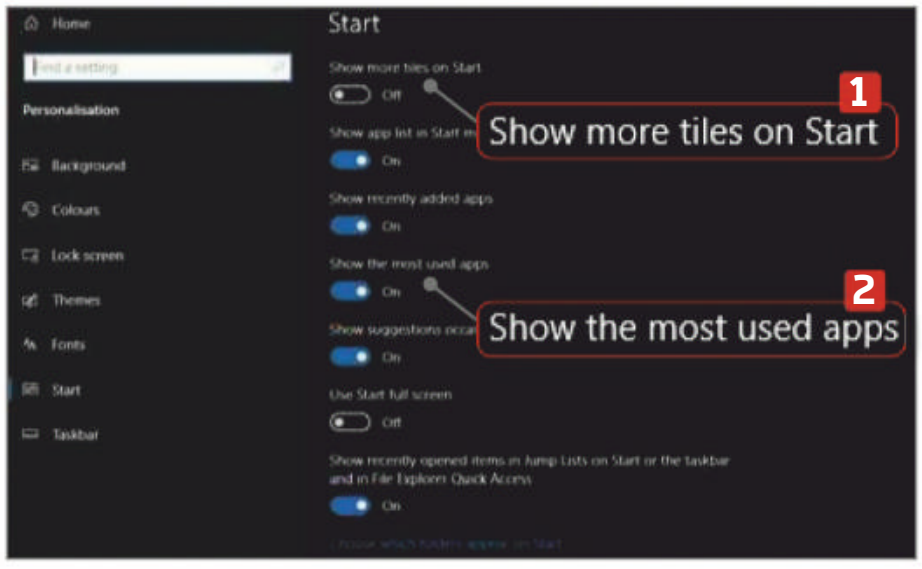
It's not only the Start menu that you can customise to your liking. The taskbar is also up for grabs. There are several Registry edits you could try, but the easiest method is to download TranslucentTB (available in the Windows Store at bit.ly/trans481). Once you've installed the app, you can tweak the taskbar with a quick right-click to add a blur or make it completely transparent.



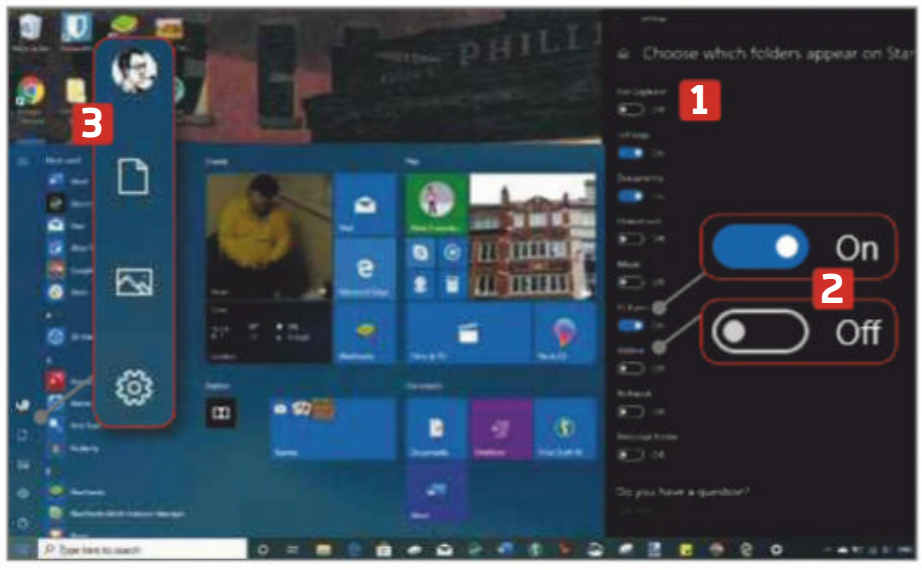
1 Let's start with the simplest customisation, which is to change the Start menu's size. Depending on how you use it and which tiles you pin to it, you can add extra columns to the Start menu by dragging out the right-hand side. 1 This gives you more space for pinning tiles. Alternatively, drag it the other way to make it more compact.



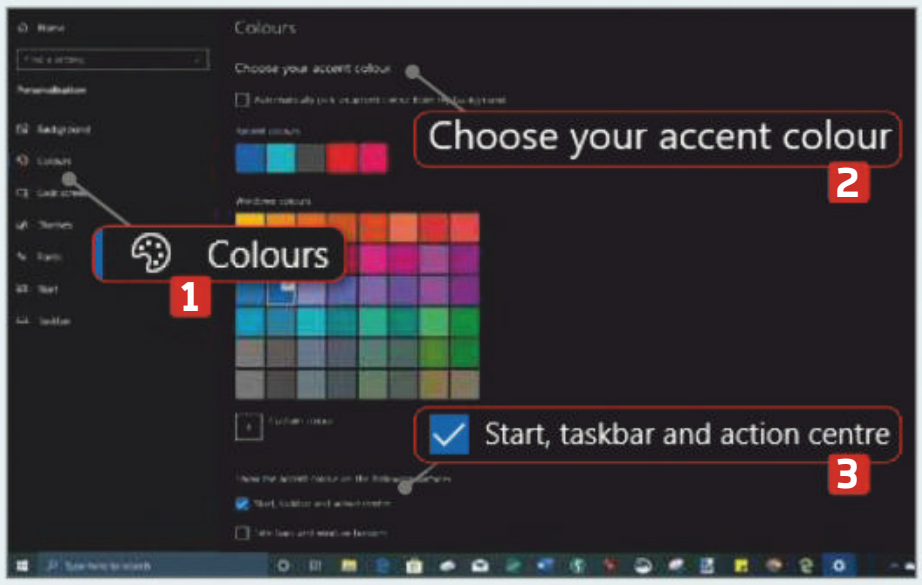
2 To group your tiles, drag and drop them into place. Then click the two lines above your grouped tiles 1 to edit the group name. If you press and hold these lines, you can move the entire group around the Start menu. Windows 10 automatically creates sections for new groups, which you can see as a thick blue line 2 when moving a tile.



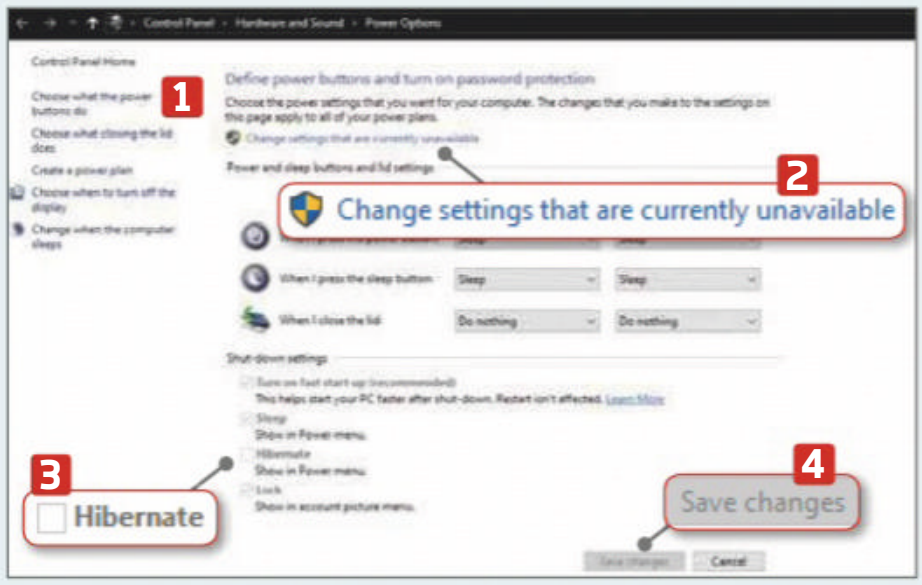
3 Type `Start settings` into the Start menu to access a few more options, including 'Show more tiles on Start', 1 which expands the columns slightly. The 'Show most used apps' option 2 is also worth activating because it makes your favourite apps easier to access by placing them in a new section on the left-hand side.



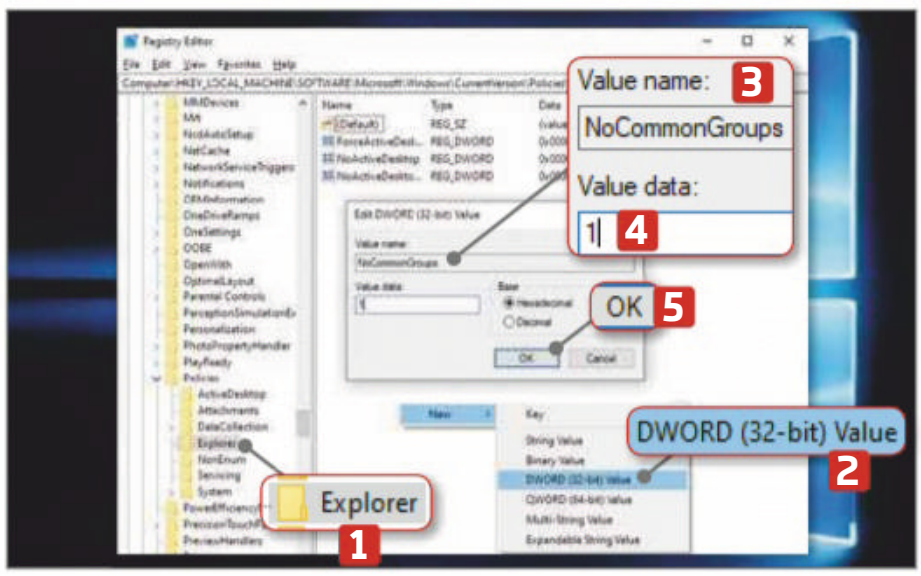
4 Go to the bottom of the list and select 'Choose which folders appear on Start'. This presents you with a list of folders such as File Explorer, Documents and Music. 1 Toggle each option On or Off 2 to add or remove the folder's icon from the column on the left, under your Profile button. 3



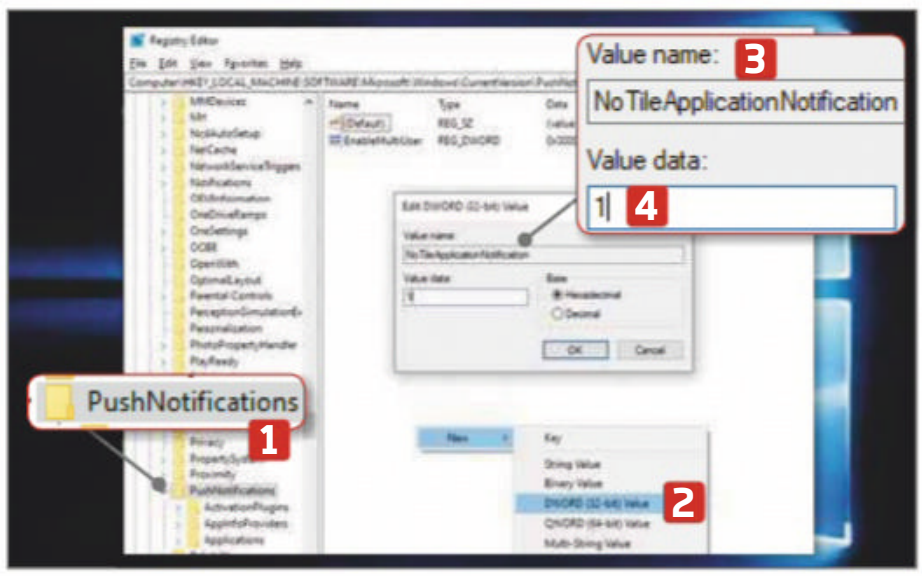
5 You may also like to turn on 'Use Start full screen'. This helpfully removes some of the clutter so that rather than scrolling through every option, you click buttons to move between Pinned Tiles and 'All apps'. Finally, in the settings, go to Colours 1 to select the accent colour 2 and choose whether it also applies to other areas, such as the Taskbar. 3



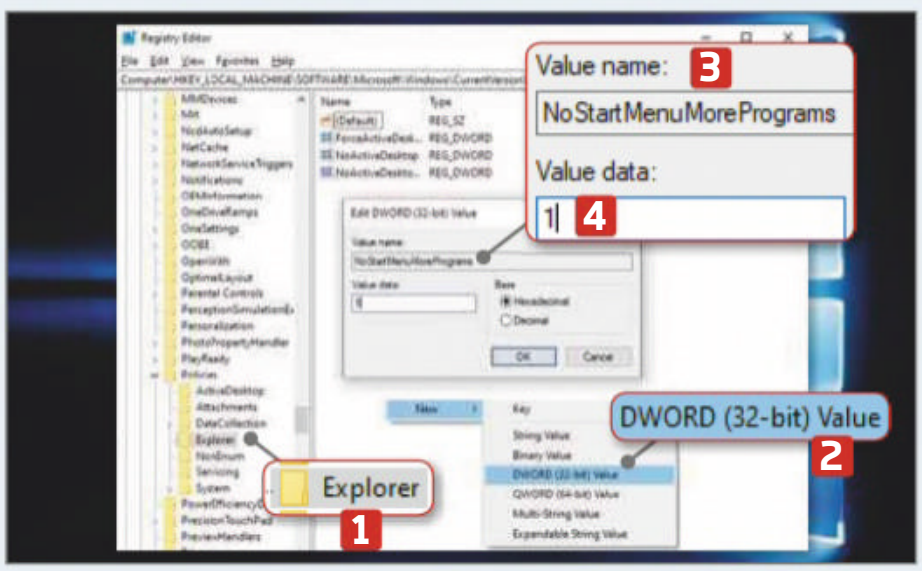
6 You can add a Hibernate option to the list that appears when you press the power button. Search `power options`, then choose 'Additional power settings'. In the next window, click 'Choose what the power buttons do'. 1 You may need to click 'Change settings that are currently unavailable'. 2 Tick the Hibernate box 3 and 'Save changes'. 4



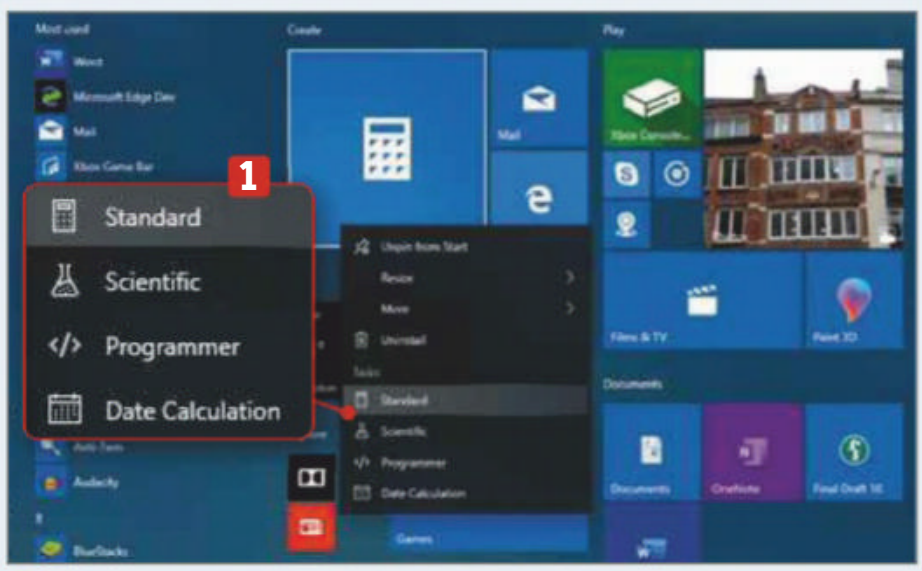
7 When you create a Windows 10 profile, every user can see its shortcuts. To avoid this, open Registry Editor and find or create HKEY_CURRENT_USER\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\Explorer. 1 Right-click to create a New 32-Bit DWORD. 2 Call it `NoCommonGroups`, 3 and give it a value of 1. 4 Click OK 5 to save it, then restart.



8 To switch off a live tile, simply right-click it and select More, 'Turn Live Tiles off'. If you'd rather block them all at once, however, look for HKEY_CURRENT_USER\SOFTWARE\Microsoft\Windows\CurrentVersion\PushNotifications. 1 Create a DWORD (32-bit) 2 called `NoTileApplicationNotification`. 3 Set the value to 1. 4



9 For a sleeker Start menu, remove the 'All apps' list. Go to HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Policies\Explorer and HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\Explorer. 1 In both create a DWORD (32-bit) 2 named `NoStartMenuMorePrograms`, 3 and give it a value of 1. 4

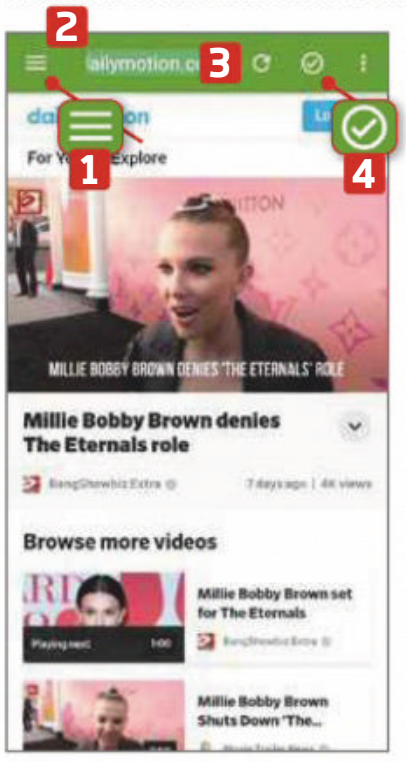


10 Most people know that right-clicking a Start tile lets you resize it or uninstall the app. However, some apps have extra options. Right-click Microsoft Word, for example, to jump to recent documents. Doing the same on Calculator gives you the choice of calculator styles, including Standard, Scientific, Programmer and Date Calculation. 1

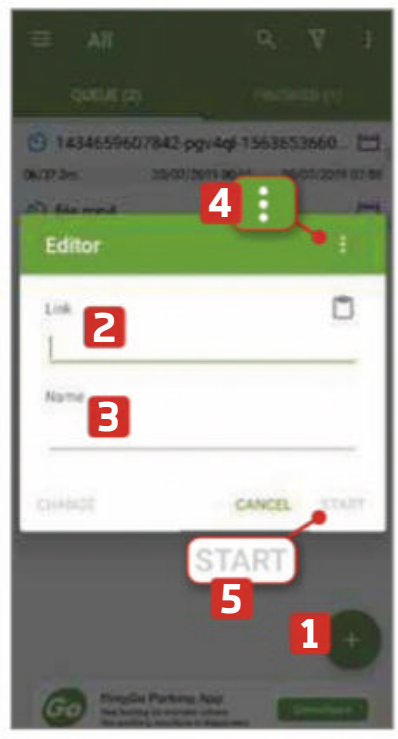
Download smarter on your Android devices

Download managers give you greater control over your downloads and make the process more efficient. The best tool for Android users is Advanced Download Manager, which offers a wealth of options including batch loading and the import and export of downloads. Android won't let you set Advanced Download Manager as your default downloading tool, so you have to start downloads by hand, but it's still worth using.

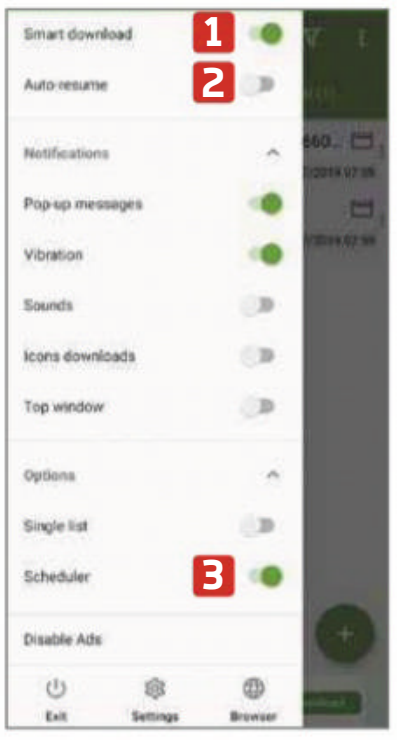
Advanced Download Manager: bit.ly/download481 | 10 mins | Android (varies)



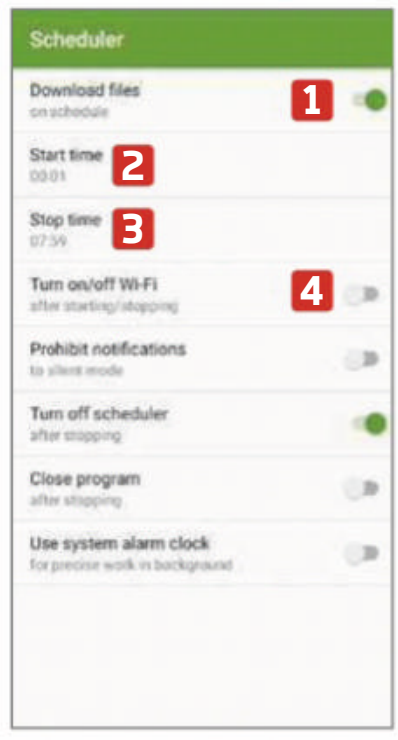
1 While your phone won't open Advanced Download Manager (ADM) by default, preparing your downloads is very straightforward. Tap the three-line menu 1 and go to the browser, where you'll find Bookmarks and History. Using the address bar, 2 navigate to your chosen download and copy the address 3 or tap the tick. 4



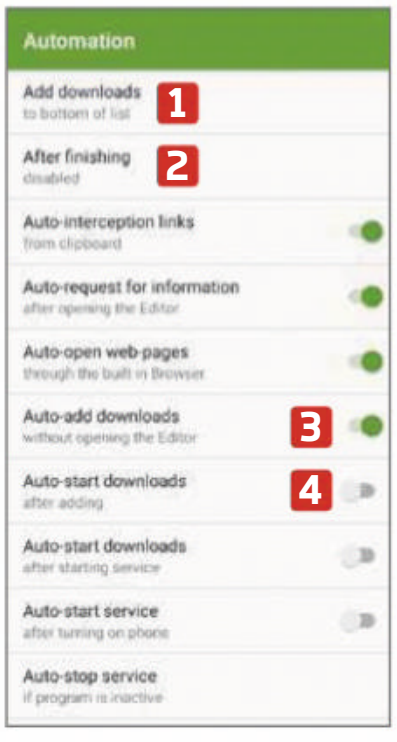
2 Back in ADM, tap Plus. 1 Paste your URL into Link 2 and give your download a name. 3 Tap the three dots. 4 Here you can choose to save files to internal or external memory, decide how many files can download at once, set the download speed and choose whether to use mobile data or Wi-Fi. Close and, on the download screen, press Start. 5



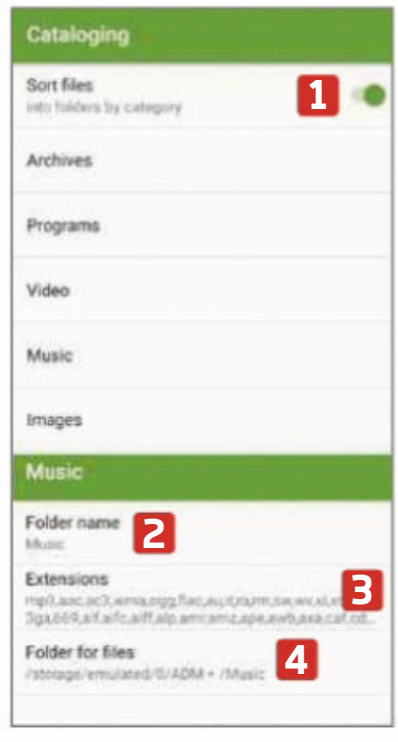
3 ADM has an impressive selection of download settings. On the home screen, tap the three lines. One of the first features you should switch on is 'Smart download', 1 which ensures that downloads don't just stop when your connection drops. Scroll further down and switch on 'Auto-resume', 2 'Only via Wi-Fi', and Scheduler 3 – or turn them off if you prefer.



4 Tap the Settings cog. Our favourite option here is Scheduler because it makes ADM feel like a proper download manager. Toggle the option to On, 1 if you haven't already, then specify a Start 2 and Stop time. 3 You can also set ADM to switch on Wi-Fi before downloading scheduled items, 4 which is handy if you ever switch it off and forget.



5 The Automation section is also worth visiting. Open it to specify whether to download newer files first or last, 1 and what happens to a file once it's downloaded 2 – there are tickboxes to open, send, or delete the file, for instance. For greater autonomy, turn on 'Auto-add downloads' 3 from the built-in browser and 'Auto-start downloads'. 4

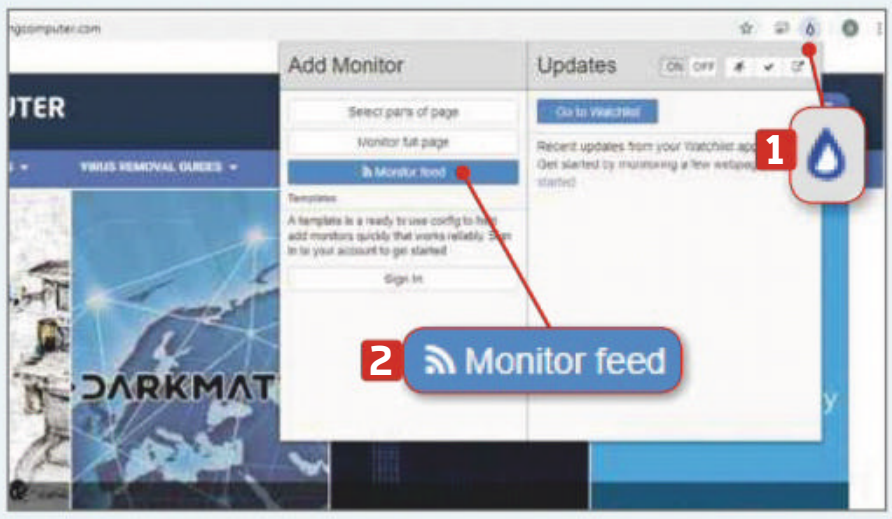


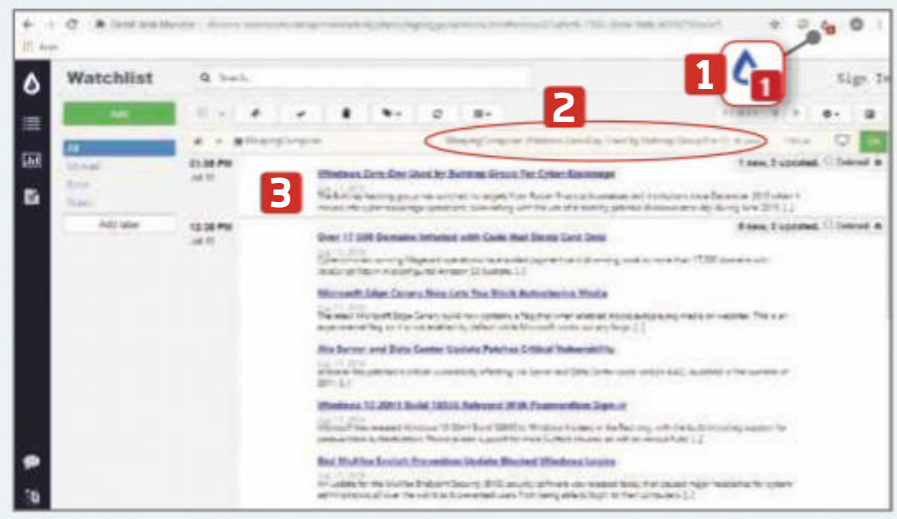
6 Back in Settings, open the Cataloging section – which is useful when downloading multiple media formats. With the option switched on, 1 tap into each category to change the folder name, 2 view downloadable file types 3 and specify a memory location for different categories. 4 You can locate your files at any time by dragging from right to left on the home screen to open the Category pull-out.

Get alerts when favourite websites update

If you've ever wasted time repeatedly checking for changes on your favourite website or missed an important update because you failed to check it often enough, Distill Web Monitor is the tool to save your sanity. Simply click the extension's icon when you're visiting your favourite web pages and you can relax in the knowledge that you'll be notified about any changes within minutes of them happening.

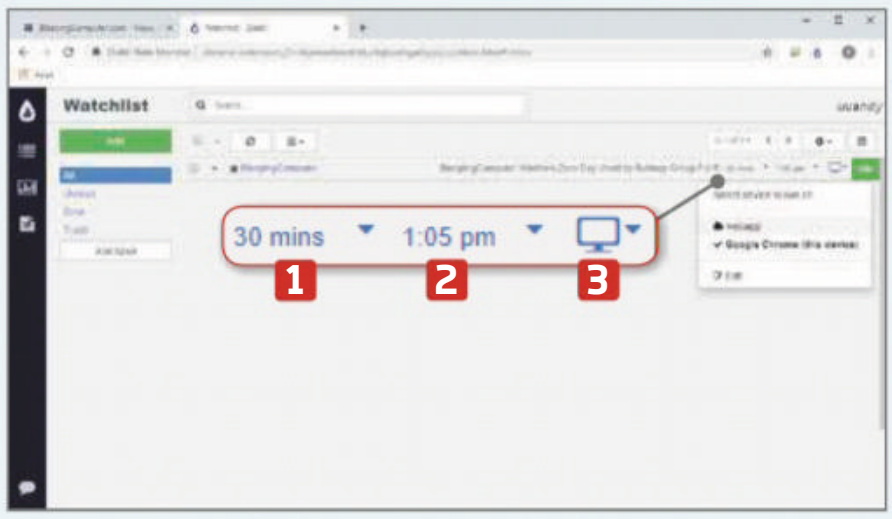
Distill Web Monitor: distill.io | **10 mins** | **Chrome** **Firefox** **Opera**

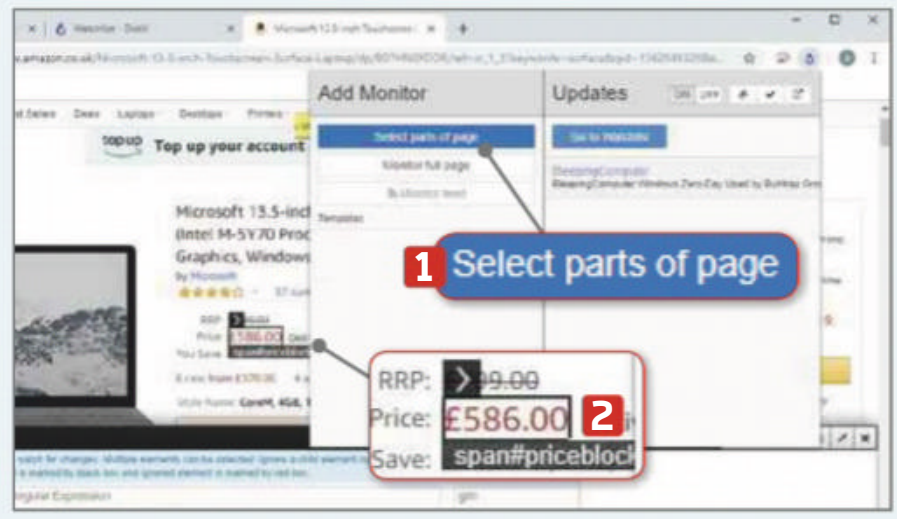




1 Follow the links on distill.io to install it in your chosen browser – we're using Chrome. Visit a page you want to monitor for changes and click the extension icon. 1 If it's available, 'Monitor feed' 2 alerts you when a new story is posted. Click the button, then click 'Add Feed to Distill'.

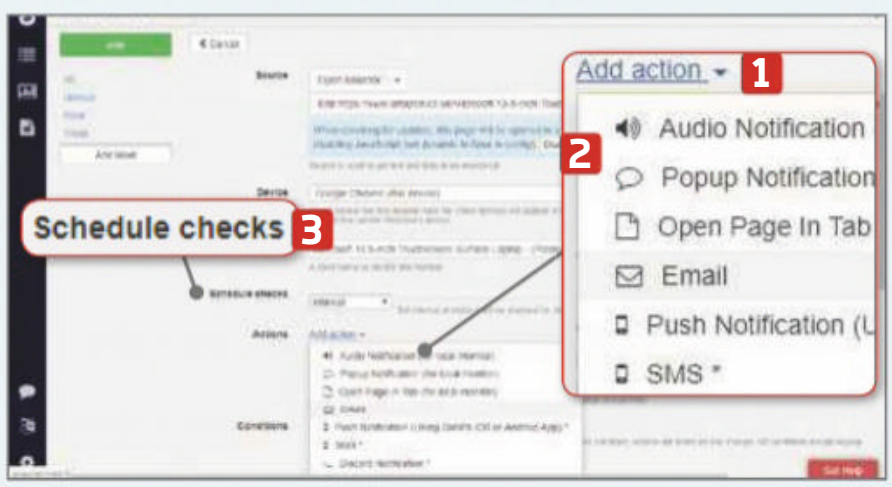
2 You're taken to your Watchlist – the list of sites you've set the software to keep an eye on. When new content appears on the site, the icon gets a red notification box. 1 Click the History section 2 to see a list of all the content on the site. The most recent to appear is at the top. 3

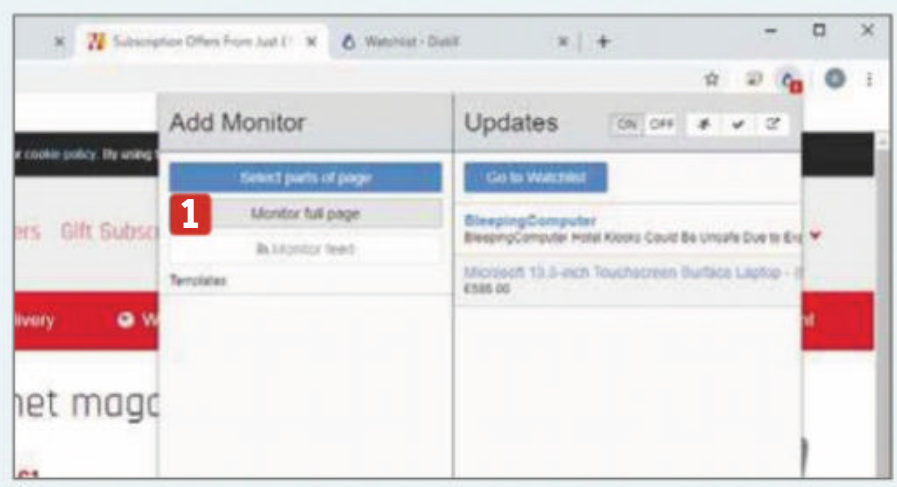




3 You can change how often checks for new content are performed, 1 see the time of the last update 2 and choose between running the tool in the cloud or on your PC. 3 The free version lets you run five checks in the cloud and twenty five in the browser (when it's in use).

4 You can monitor a specific area of a website, which is handy for tracking changes in elements that are always in the same place, such as the price of an item in an online shop. When clicking the icon, choose 'Select parts of page' 1 and click the area that you'd like to monitor. 2





5 Click 'Save selections' to go to the configuration screen and set what happens when something changes. Use the drop-down arrow next to 'Add action' 1 to choose the type of notification. 2 You can also tweak the checking interval. 3 Click the Save button when you've finished.

6 The last option – 'Monitor full page' 1 – is ideal for letting you know when infrequently updated static web pages change, such as a company's homepage. It can also be used to monitor pages that regularly change but don't have a feed.

Weekend Project

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

How to...

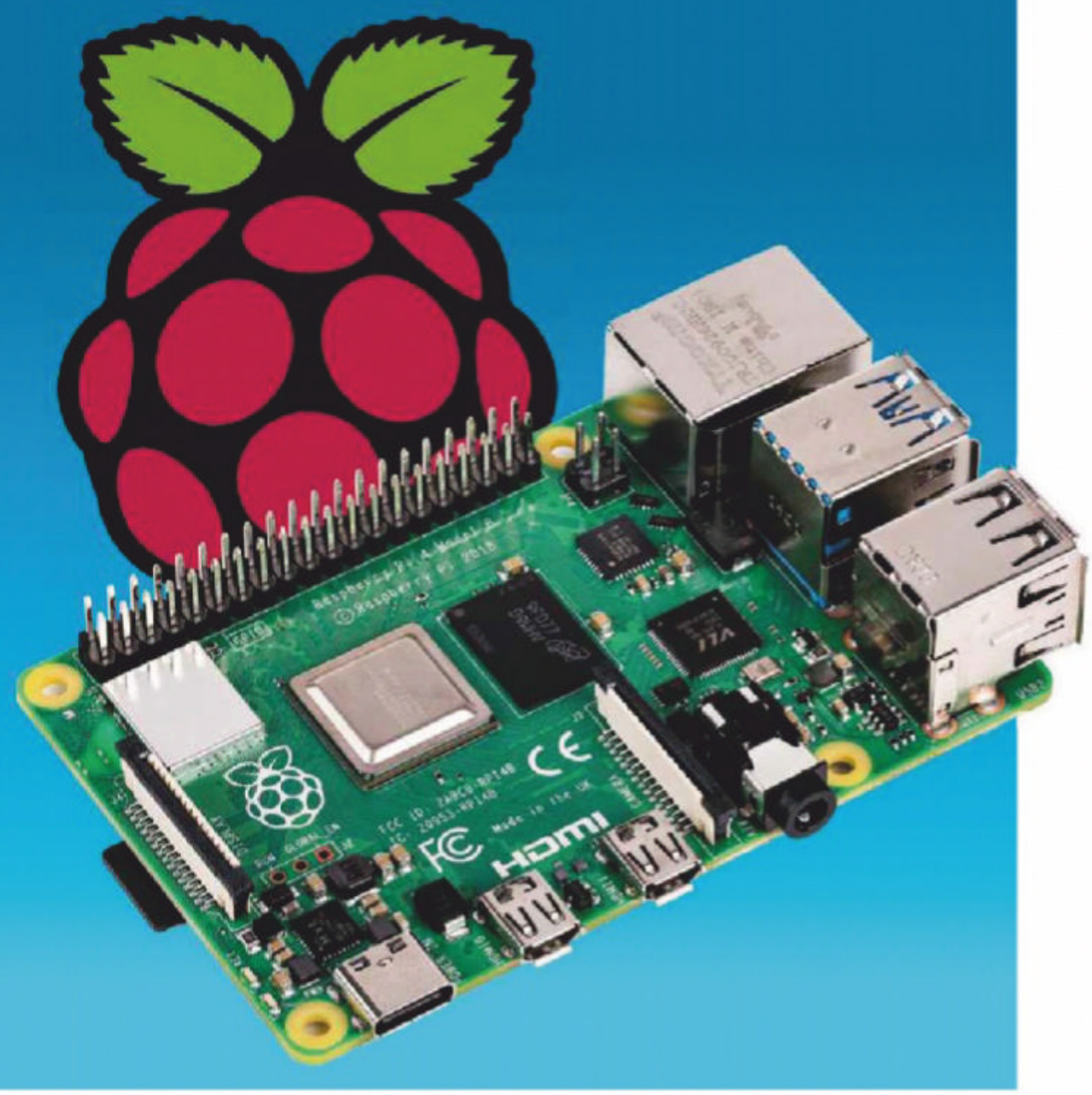
Use a Raspberry Pi 4 as a desktop PC

Wayne Williams shows you how to set up the new Raspberry Pi 4 and explains how close it can get to replacing a regular PC

The original Raspberry Pi (www.raspberrypi.org) was designed to provide an ultra-cheap way to encourage children to tinker with computer hardware and learn to code, just as they had with home computers in the 1980s and '90s. The uncased credit card-sized computer has since found an appreciative audience outside of education, too, and is used in all sorts of projects.

The Pi has undergone a number of revisions since it was launched in 2012, each more powerful and feature-rich than the last. The Raspberry Pi 4 B, which went on sale in June, offers three times the processing power and four times the multimedia performance of its predecessor, the Raspberry Pi 3+. As we saw in last issue's review (bit.ly/webuser480), it's not enough to replace a Windows desktop PC in every respect but it's getting closer with every iteration.

However, if all you want to do is browse the web and carry out some light office work, you can certainly use this new Pi for that and more. Here, we explain what you need and what to expect if you're thinking of experimenting for yourself.



What you'll need

First off, you'll obviously need a Raspberry Pi 4. This comes with a choice of three RAM sizes – 1GB (£33), 2GB (£43) and 4GB (£53). 2GB is the minimum size you'll need to use the Pi as a desktop PC, but 4GB is preferable.

In addition to the Pi 4 itself, you will need the following extras to get it set up and working:

- **TV or computer monitor:** the Pi 4 comes with two HDMI Micro ports, so you can connect two screens
- **HDMI Micro-to-HDMI cable** (or a standard HDMI-to-HDMI cable and an HDMI Micro-to-HDMI adapter)**:** this connects the Pi to the display. You'll need two if connecting two screens
- **Ethernet cable:** to connect the Pi to your network and the internet (this is optional, because the new Pi also supports dual-band 802.11ac Wi-Fi)
- **USB keyboard**
- **USB mouse**
- **Micro SD card:** you need a minimum of 8GB to install the operating system, and may also require an adapter to connect to your PC to transfer the operating system to it
- **15W USB-C power supply:** the Raspberry Pi Foundation made a mistake with this new Pi's USB-C hardware design, so the port is incompatible with

The Raspberry Pi 4 has two HDMI Micro ports, so you can set it up to use two screens simultaneously

many USB-C chargers. While "simple" cables and the official charger work, so-called E-marked cables – designed to work with all USB-C devices – identify

The official USB-C charger is one of the few that's guaranteed to work with the new Pi 4

the Pi 4 as an audio accessory and don't deliver enough power. You'll see a lightning-bolt symbol on screen if your cable isn't charging the Pi properly.

- **Headphones or speakers:** if your monitor doesn't play sound carried over HDMI, use the built-in 3.5in audio socket
- **Case:** This is optional, but protects your Pi from dust and damage and enhances its looks. Official and third-party cases cost around £5-£10

You can buy some of these items directly from The Pi Hut (thepihut.com) and other retailers, although the chances are that you'll already have a few of the required cables and peripherals you need. There's also an optional 'Desktop Kit' available to buy which bundles a 4GB Raspberry Pi 4 board, case, USB mouse, USB keyboard, power supply, two HDMI cables, a 32GB Micro SD card and a Beginner's Guide to help you get you started. This is priced at £105.

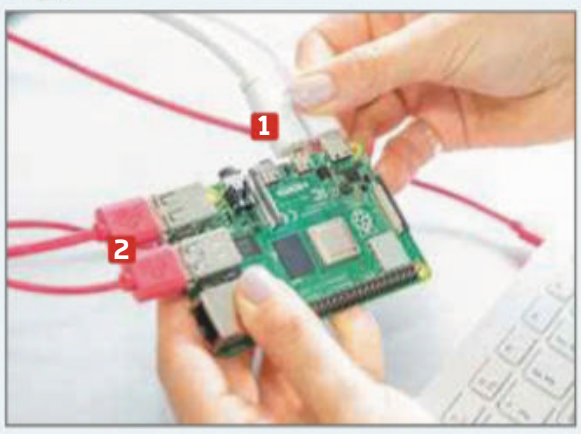
We show you how to set up the Pi 4 in our Mini Workshop, below.

Can you use the Pi 4 as a desktop computer?

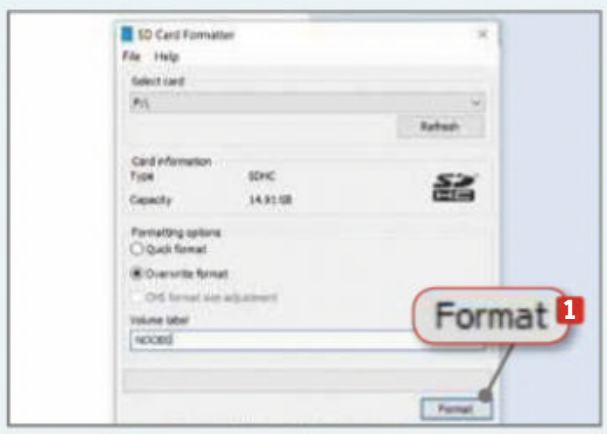
A £53 barebones board (for the top-of-the-range 4GB model) isn't going to compete with a £500 laptop or desktop PC – it's not even going to come close. But provided your expectations of what you can and can't do with it are realistic, you shouldn't be too disappointed.

Because the Pi runs a Linux operating system, rather than Windows, a lot of programs that you would usually run on a PC – such as Microsoft Office and many big-name games – aren't available for it. You can run LibreOffice (Raspbian comes with it preinstalled), which runs well, and it also handles web browsing and other

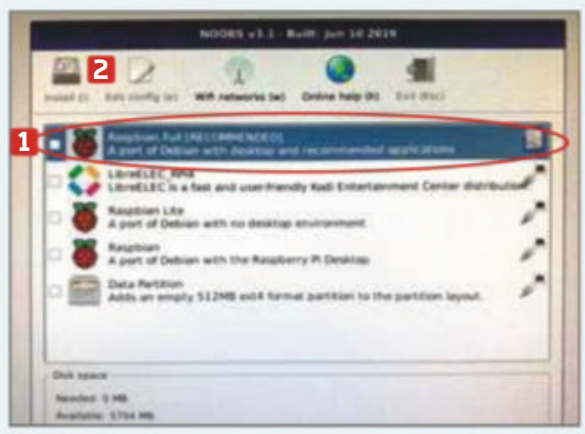
MINI WORKSHOP | Get the Raspberry Pi 4 up and running



1 Start by connecting all the required hardware to your Pi. This includes plugging the device into one or two monitors 1 and connecting a keyboard and mouse. 2 Add an Ethernet cable for a wired internet connection as soon as you start. If not, you can connect to Wi-Fi later. Before powering it up, you need to add an operating system.



2 There's a selection of operating systems available for the Pi, but your best bet is to download NOOBS (New Out Of the Box Software) from bit.ly/noobs481. Format the Micro SD card using SD Formatter (bit.ly/sdformat481), 1 then open the NOOBS Zip archive and drag the files to your Micro SD card.



3 Insert the SD card into your Pi and power it up. The NOOBS Installer will run and, if you're connected to the internet, give you a choice of operating systems. Select Raspbian 1 and click Install. 2 Click Yes and the installation will begin. Click OK when it finishes. Your Pi will restart and Raspbian should load automatically.

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	Provider	Package name	Monthly price	Contract length	Broadband speed	Allowance	First-year cost*
1	Shell Energy	Shell Energy: Fast Broadband	£16.99	18 months	11Mbps avg. speed	∞ unlimited	CHEAPEST £203.88
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Data supplied by www.broadbandgenie.co.uk. Correct as of 22 July 2019.

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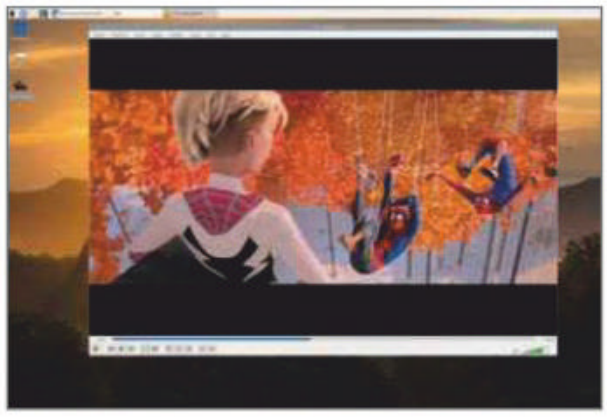


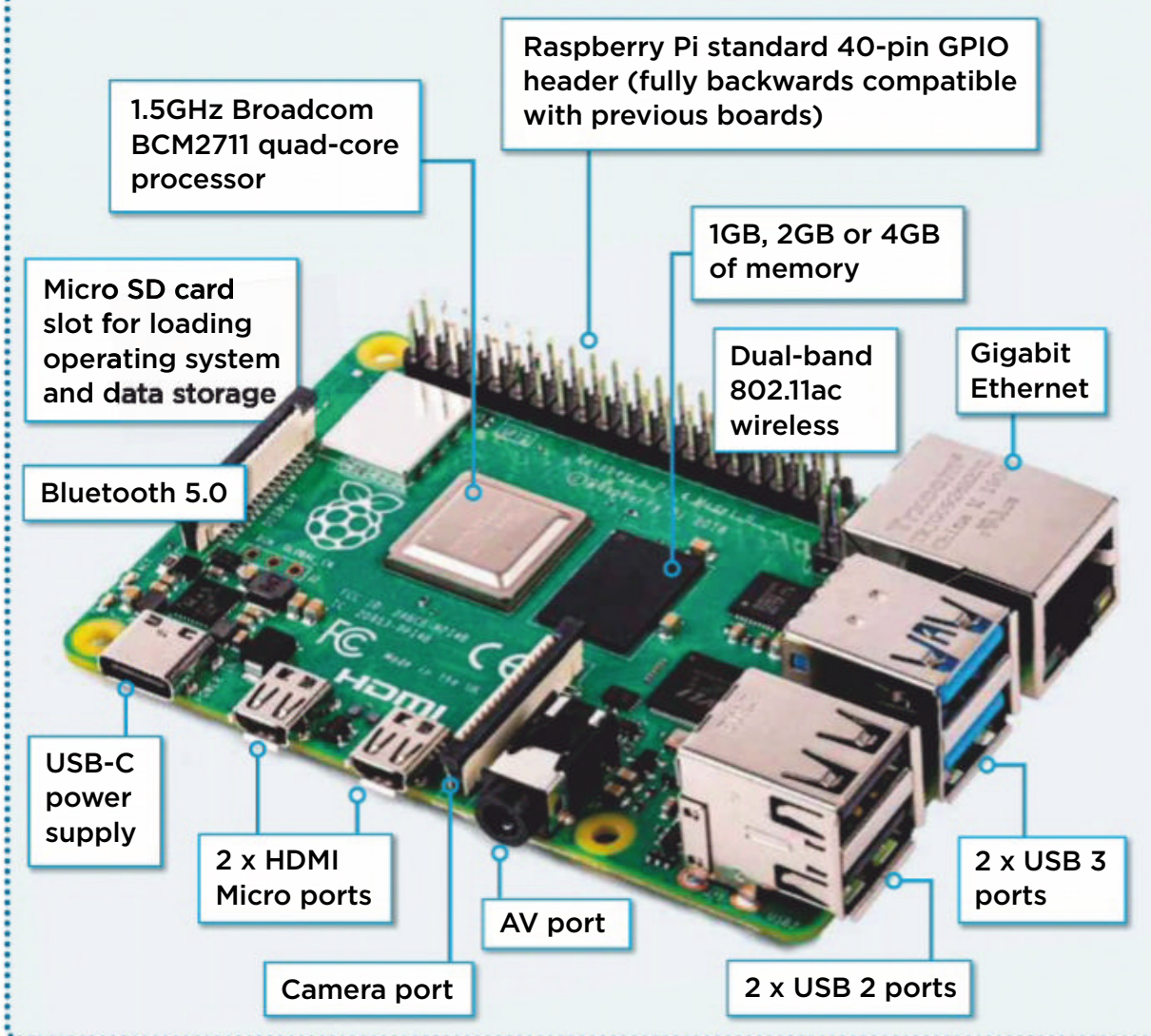
The Raspberry Pi can play most videos perfectly through VLC Media Player

web-based tasks. Google's Chrome browser is designed to only run web apps, and it can do this on the Raspberry Pi almost as well as it can on a more expensive Chromebook.

The new Pi can play some games, but anything that's too demanding, with high-quality 3D graphics, will struggle. We found SuperTuxKart (bit.ly/stkart481) played reasonably well. Similarly, video editing is either not going to be a realistic proposition, or it will take forever. If the Pi gets too hot, because it's working too hard, then it reduces performance to protect itself. It doesn't have a fan to cool itself down, though you can buy one for the device if you want.

The fact that the Pi 4 can push 4K graphics to two screens simultaneously sounds promising, but we found it struggled to play 4K movies smoothly. However, when we watched videos in FullHD 1080p, the results were fine, with just a little judder during fast-paced action scenes.

RASPBERRY PI 4 TECH SPECS

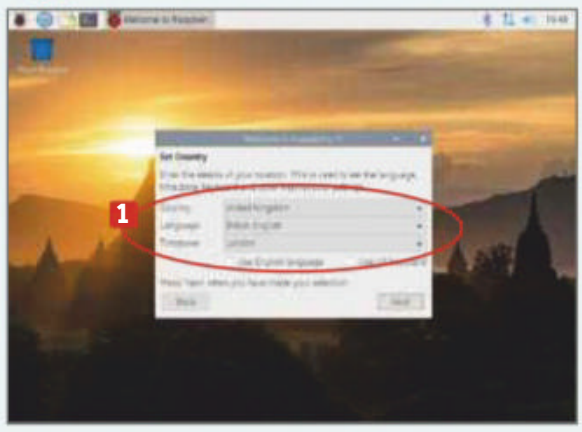


What software does the Pi 4 come with?

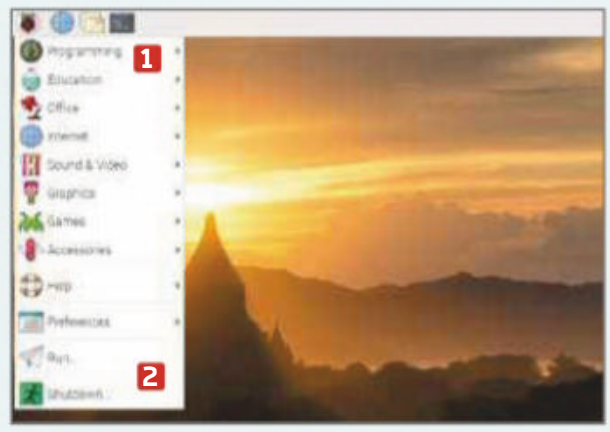
The latest version of Raspbian comes with the Scratch programming tool, LibreOffice, Chromium Web Browser (the open source browser that Google Chrome is built on), VNC Viewer remote desktop, VLC Media Player, Image Viewer and Minecraft Pi.

You can add more programs by opening the Add/Remove Software feature and browsing the available categories, or searching for a program by name.

MINI WORKSHOP | Get started with the Raspbian operating system



1 When Raspbian starts for the first time, you're greeted by the Welcome to Raspberry Pi application, which guides you through the setup process and lets you set your country, language and time zone. 1 You can also enter a password and connect to your wireless network. It then updates the operating system and applications.



2 The Raspbian desktop is similar to Windows, but with a taskbar running along the top of the screen and a Start menu sorted into categories – Programming, Education, Office, Internet, Sound & Video, Graphics, Games and Accessories. 1 There are also Run and Shutdown buttons. 2

3 Next to the Start button, you'll find pinned shortcuts for the web browser, file manager and Terminal (command line). 1 At the system tray side of the taskbar, there are icons for Bluetooth, Internet and Volume control. 2 You can customise Raspbian – and add or remove software – via the Preferences menu. 3

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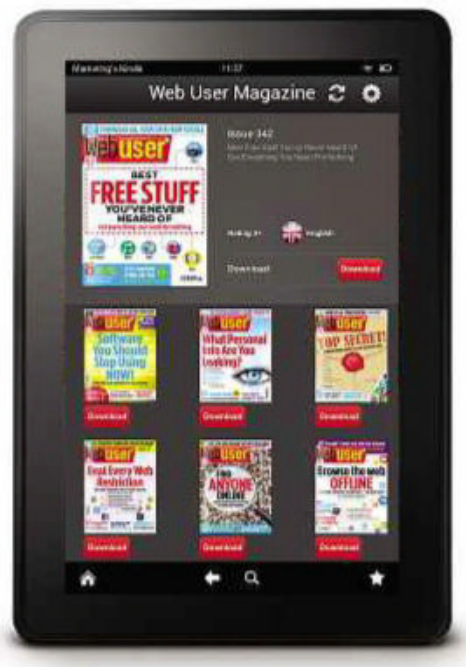

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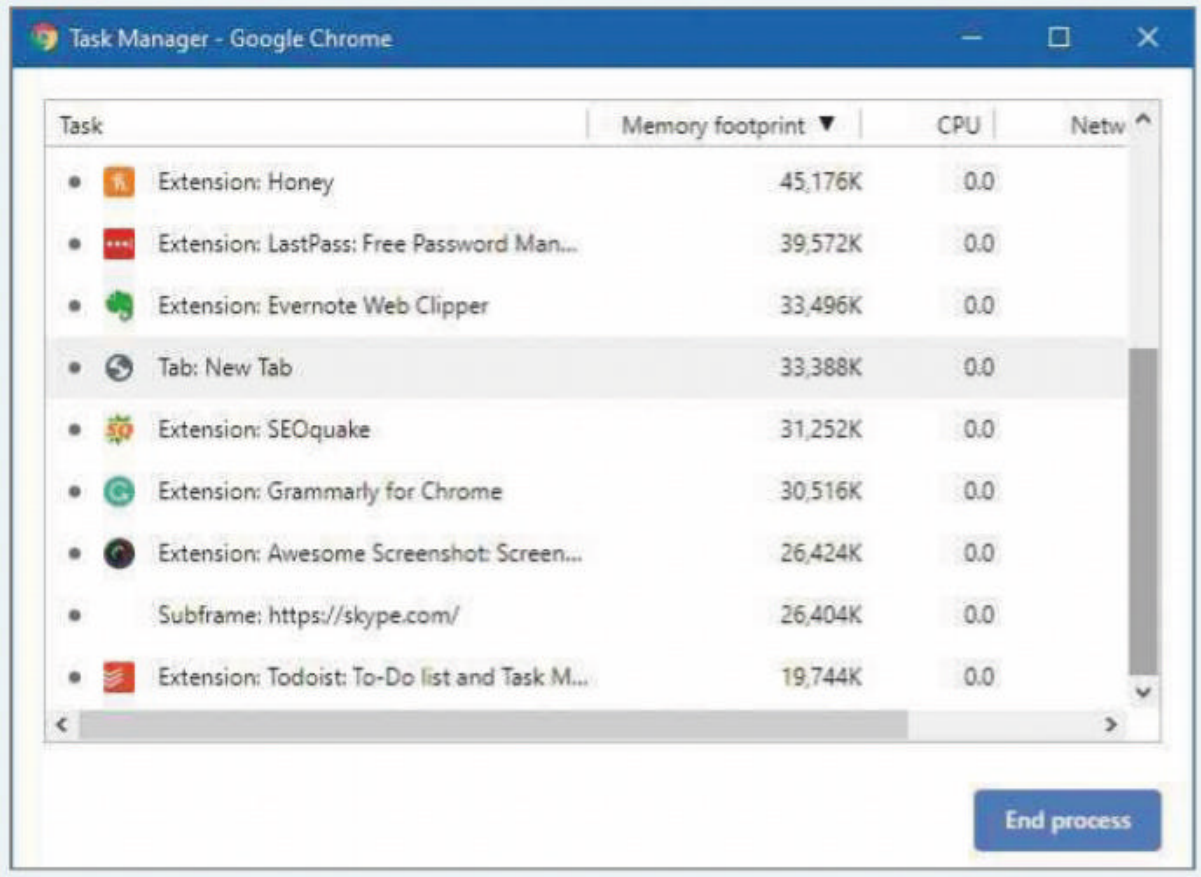
Web User Masterclass

Maximise your PC's performance by optimising RAM and virtual memory

Limit browser extensions to save memory

Extensions in web browsers use a lot of memory, sometimes as much as 50MB each. In a worst-case scenario, a dozen extensions for Chrome could require over half a gigabyte of memory, and that doesn't even include the memory used by the browser itself or any tabs containing open web pages. This hogging of resources is a problem with web browsers on PCs that have limited memory, so it's worth checking how much each extension is using.

Open the Chrome menu and select 'More tools', then 'Task manager'. Look for the names of extensions that are running. Any extensions not being used can be temporarily disabled, then enabled again later if you need them. Go to the Chrome menu and click 'More tools', Extensions, then use the switches to disable extensions.



Extensions consume memory, so don't use too many at once

Check memory usage

To see how much memory is being used and whether more is needed, right-click an empty part of the taskbar and select Task Manager. Click 'More details' if necessary, then select the Performance tab and click Memory on the left. Open a dozen browser tabs and watch the memory usage rise. If this has used up most of the memory, your computer will benefit from a memory upgrade.

Real memory vs virtual memory

Programs use memory when they're running and some require a lot of it.

Web browsers with multiple tabs, photo editors with large images and other resource-hungry programs may need gigabytes of memory to function.

If there is insufficient RAM in the computer, Windows temporarily saves chunks of the data being held there to the hard drive. This is called virtual memory. While it keeps things running and prevents your PC from crashing or losing information, the data has to be reloaded from the hard drive when it's needed again. To do this, another chunk of RAM may need to be written to the hard drive to make space for it. Using the hard drive as an extension of RAM is therefore very slow, particularly if you have a mechanical model rather than an SSD (solid-state drive).

For a computer to run at maximum speed, it shouldn't be using the disk as virtual memory. Upgrade the PC's RAM so it doesn't run short of memory. These days, 8GB is considered the minimum amount of RAM required for a computer to run smoothly.

Close browser tabs

It's easy to get carried away with the number of tabs you have open in your web browser and end up with a dozen or more. A PC with 4GB of memory can run out of RAM with just 10 tabs open, at which point it starts moving RAM to the virtual memory on the hard drive, thereby slowing everything down.

To avoid this, keep the tabs you're using to a minimum and close any you aren't using. To see how much memory is being used by open tabs in Chrome, click the three-dot icon to open the menu and select 'More tools', followed by 'Task manager'. Click the 'Memory footprint' column header to sort the list by memory usage and see which tabs are consuming the most.

Chrome's memory usage sometimes just keeps growing and we have seen a single tab end up using over 2GB of memory – it would have used even more if we hadn't closed it.

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.

If your PC starts running slowly after you've been using it for a while, it's definitely worth closing a few tabs.

Increase virtual memory

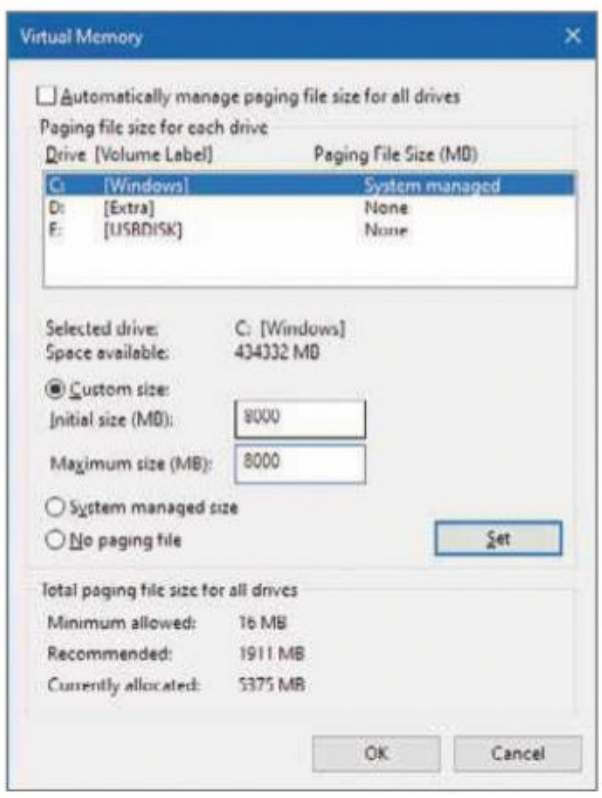
Windows commits a section of your hard drive for use as virtual memory. If Windows runs out of both real memory and virtual memory, the PC almost grinds to a halt. This is a serious situation that should be avoided.

Open File Explorer, right-click This PC and select Properties on the menu that appears. Click 'Advanced system settings' on the left, select the Advanced tab, find the Performance section and click the Settings button. Select the Advanced tab in the next window, find the 'Virtual memory' section and click the Change button.

Eventually, you'll arrive at the Virtual Memory settings. At the top is the setting to 'Automatically manage paging file size for all drives', which is usually the best option for most people. However, it may be worth experimenting with custom settings to see if they improve your PC's performance.

Clear the tick from the box at the top and select 'Custom size'. There are boxes for 'Initial size' and 'maximum size' – both can be set to the same value and you can get an idea of the size required by looking at the 'Currently allocated' amount at the bottom of the window.

It doesn't do any harm to have a large paging file, but it could negatively impact performance if it's too small. Make it at least equal to the amount of memory in the computer, and possibly double it if there isn't much available. Set at least a 4,000MB page file on a PC with 4GB of RAM (maybe even double that) and 8,000MB for 8GB of RAM.



Advanced users can experiment with different virtual memory settings

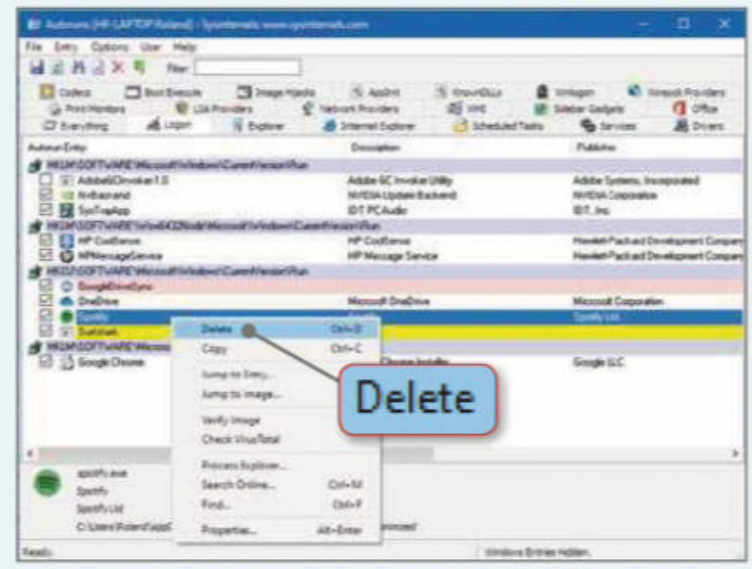
TAKE IT TO THE NEXT LEVEL

More advanced tips for when you're feeling brave

Hard drive vs SSD

Solid-state drives (SSDs) are much faster than mechanical hard-disk drives (HDDs), so if Windows has to resort to using the drive as virtual memory, it won't slow down as much with an SSD as with an HDD. This is one of the reasons why computers are much faster when an HDD is replaced with an SSD.

In terms of speed, RAM is fastest, SSDs are slightly slower and HDDs are slowest. So if you can't upgrade the RAM in a PC, upgrade the HDD to an SSD instead.



Use Autoruns to see what's loading with Windows. Disable any unnecessary items

Limit startup programs

Your computer could be out of memory before you make your first mouse-click. Obvious symptoms are a long startup after powering on and programs that take a long time to get going when they're clicked.

Even a fairly clean PC can require 2.5GB of memory just to boot to the desktop, while up to 1GB of memory can be reserved by the system, depending on the version of Windows. On a 4GB PC, that leaves just 500MB.

If you can't upgrade the RAM, the only thing to do is to stop startup programs loading in the background so they don't use valuable memory.

In Windows 10, right-click an empty part of the taskbar and select Task Manager. Some – but by no means all – startup programs are shown on the Start-up tab. Select any items you don't need and click the Disable button at the bottom. If you don't know what an item is for, right-click it and select 'Search online'. If there's anything you don't understand, leave it alone because it might be important.

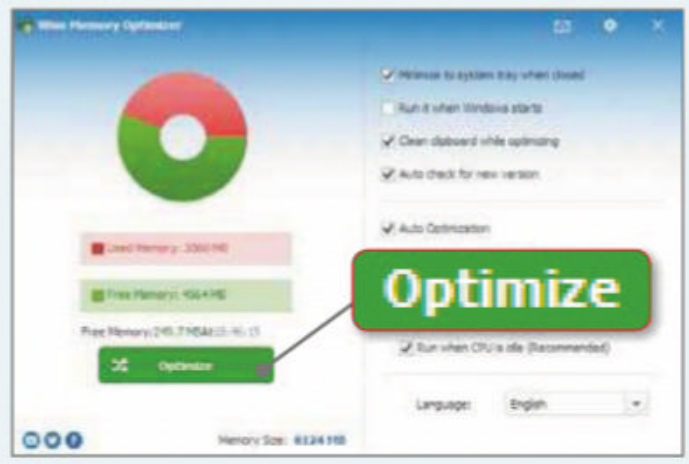
Disable hidden startup items

Task Manager shows a handful of selected items on the Start-up tab, but there are dozens of startup items that aren't shown. Autoruns (bit.ly/auto481) is a powerful tool that shows everything that starts with Windows. If you want to dive deep into startup items, use Autoruns, but be aware that it contains a huge amount of complex information. Right-click any items you don't understand and use the Search Online option to find out whether they're needed. Focus on obvious items with recognisable names and don't disable anything you don't understand.

Use a memory optimiser

A memory optimiser is a tool that frees up memory to run programs faster. Wise Memory Optimizer (bit.ly/wimo481) creates lots of free memory for the next program you run, making it run faster and perform better than before. However, it does this by pushing all other running programs to the hard drive in the virtual-memory page file, and switching programs is extremely slow while memory is reloaded from the hard drive's virtual memory to the real memory.

Memory optimisers therefore speed up the PC in one way, but slow it down in another. They may or may not help, depending on how you use your PC. You can try using one, but the benefits are mixed at best.



Wise Memory Optimizer helps some programs run faster, but others may be slowed

Ask the Expert

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

GENERAL PC

Organise files in Save As

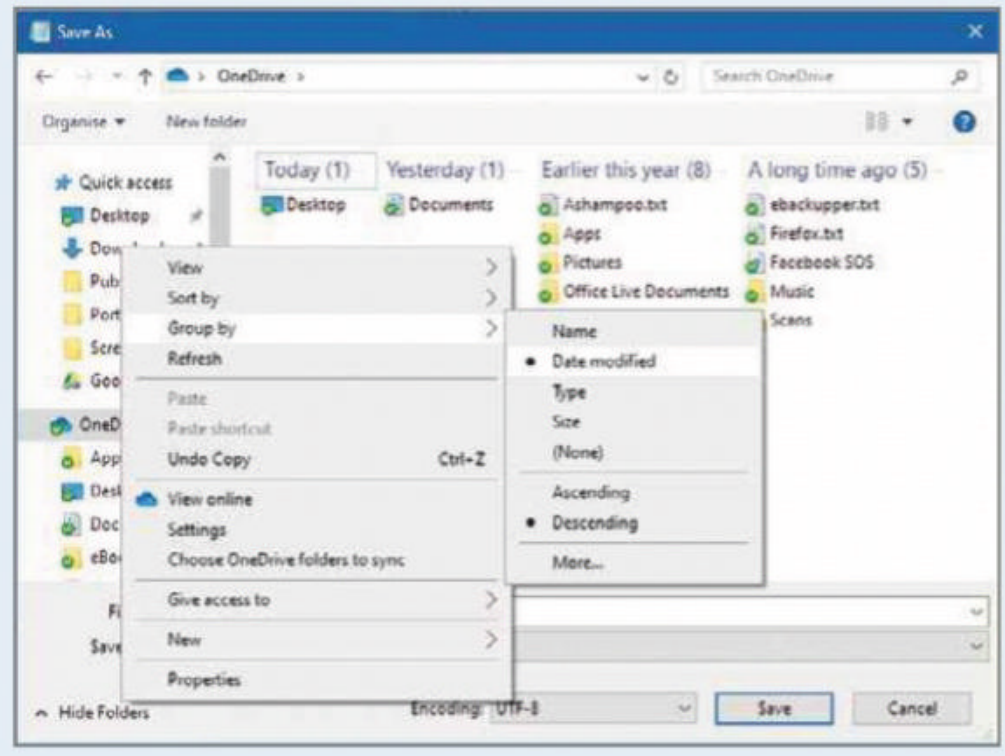
Q Ever since I installed the recent major Windows 10 update, the format of my Downloads folder has changed. When I go to Save As and click a folder, it shows a long and detailed list of files organised into Yesterday, Last Week, Last Month and so on.

I find this layout very annoying and would rather have an alphabetical list of files and folders. This is my preferred layout, and I still see this if I access the folder through File Explorer. It also has an extensive toolbar across the top of the contents in File Explorer, which isn't visible in the Save As window, nor does there appear to be a way to make it visible.

How do I make the Save As list look like the File Explorer one?

Anne-Marie Nicol, via email

A Save As can't display the File Explorer toolbar but right-clicking an empty space displays a set of options you can use to reorder things. We can see from the screenshot you sent that Downloads is set to 'Group by', then 'Date modified'. Right-click an empty space and select 'Group by', then '(None)'. Right-click and use the 'Sort by' and 'Group by' options to select the view you want.



Right-click in Save As boxes to select your preferred view options

HARDWARE

Fix a non-booting USB

Q Following Issue 477's cover feature (bit.ly/webuser477) on using a USB memory stick to host a portable operating system, I decided to give it a go and invested £25 in the Pro version of WinToUSB (bit.ly/wtou481). However, I don't seem able to get it to work.

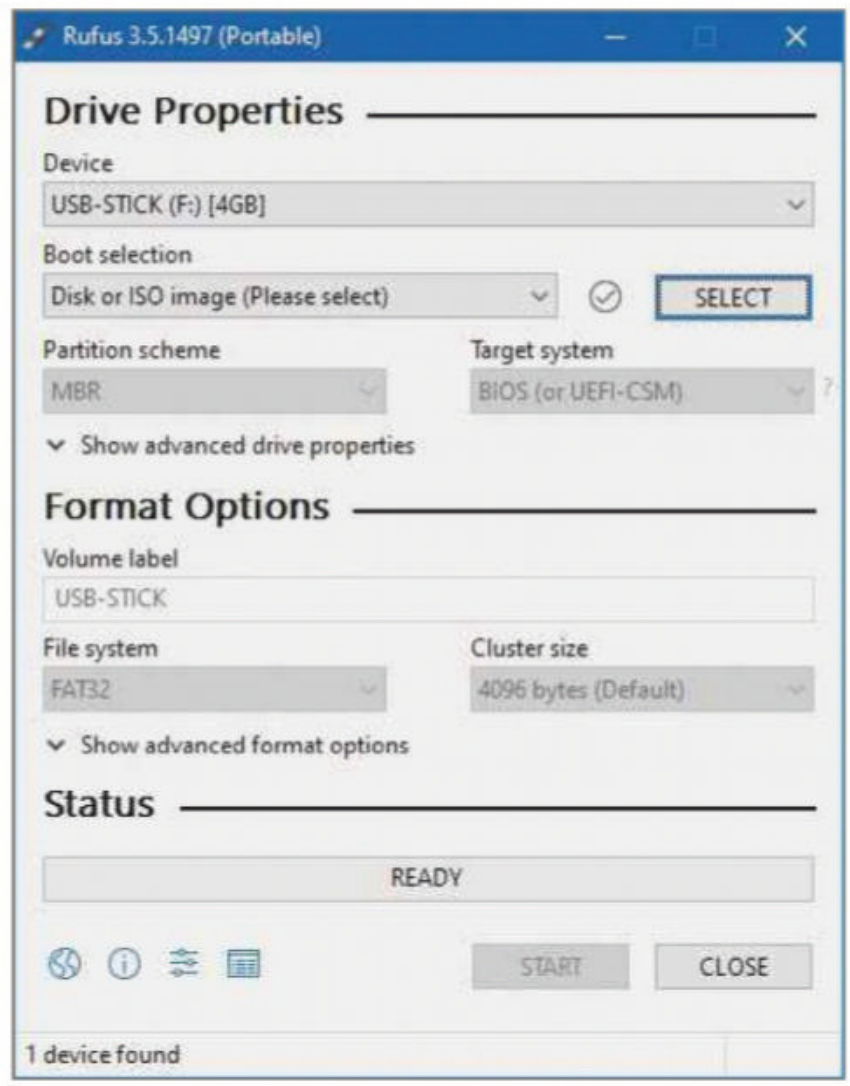
I have tried three PCs and two laptops, a mixture of Windows 10 Professional and Home, BIOS and UEFI, MBRs and GPTs, with no luck. Not a single device booted from the USB stick. I obviously changed the settings in BIOS/UEFI to allow USB boot and made it the first bootable device. I tried with and without Legacy compatibility, and with and without Safe Boot.

I've also tried all the options available in WinToUSB, such as all three partition schemes and all three options at the final stage, including VHD and VHDX. Can you think of any other reason why it's not working? I'm using a DataTraveler 100 G3 64GB stick, which is more than enough for my 64-bit Windows version. Any advice would be appreciated.

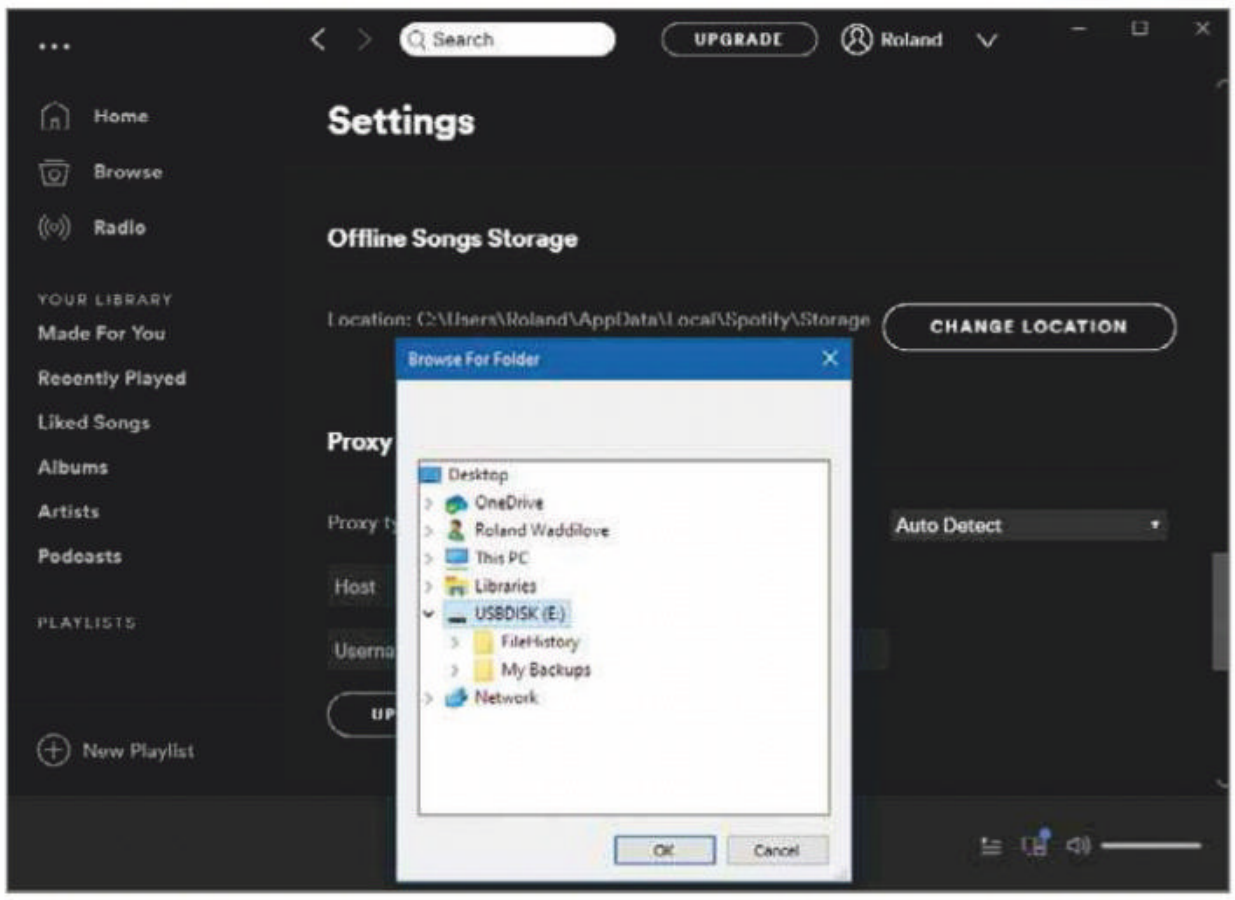
Marc, via email

A A solution that worked for some people is to use a different make and model of USB memory stick. For example, one person switched from the Kingston DataTraveler to a Sandisk and it worked first time. Some computers and USB flash drives just seem to be incompatible. It can't even be narrowed down to a single manufacturer, because one model will work but another won't.

Computers have



Format USB memory sticks with Rufus to make sure they're bootable



Choose where Spotify keeps the music you've downloaded from the Settings

USB 2 and USB 3 sockets, and USB memory sticks can also be USB 2 or USB 3. It's possible that using a USB 2 stick in a USB 3 socket – or a USB 3 stick in a USB 2 socket – could be the cause of the problem. It shouldn't, but you never know, so try matching the socket and stick versions. Computers have multiple USB sockets, so try booting from all of them.

Some people have found that formatting the USB stick using the free program Rufus (rufus.ie) solves the problem. There's a portable version so you don't even need to install it.

SOFTWARE

Download Spotify tracks

Q Can you tell me if there is any software that can download music from Spotify to an external hard drive?

Rob Hancock, via email

A Music is copyrighted, so any software that allowed you to download and save tracks from Spotify would be illegal. There are programs that claim to do it but we haven't tried them because there is a legal way to save Spotify music for listening offline.

With a Spotify Premium account, you can download up to 10,000 songs on up to five different devices, including computers, phones and tablets. This lets you play music offline without an internet connection whenever you want.

Using the Spotify desktop app, go to the File menu and select Offline Mode. Albums can't be downloaded but playlists can. Go to a playlist, click the three-dot menu and select Download.

Storing 10,000 music tracks on your PC's hard drive could use a lot of space, possibly more than you have available, so there is a way to store them elsewhere. Click the down arrow in the top-right corner of the desktop app and select Settings. Scroll down, then click Advanced and scroll down again to Offline Songs Storage. Click Change Location and choose where you want Spotify to store the downloaded music.

SOFTWARE

Convert old Photo CDs

Q Many years ago, probably in the early 2000s when I first got a digital camera, I had lots of photographs stored on Photo CDs. I still have these, and they seem to be in good condition, but I can't access the photos they contain.

Is there a way to open or convert the photos from a 15-year-old Photo CD?

Richard Lightfoot, via email

A Photo CDs were invented by Kodak in the 1990s and by 2000, many companies offered to turn printed or digital photos into Photo CDs. You could also get software to do it yourself on a computer. It wasn't particularly popular with the public and never took off to any extent, but keen photographers used it.

The PCD file format can contain multiple copies of a photograph at different resolutions, from 128 x 192 pixels, all the way up to 4,096 x 6,144. It's an old file format that isn't used today, but there are still a few software tools that can read files and extract the images, saving them in a more modern

HARDWARE

Defragging memory sticks

USB memory sticks use solid-state memory, just like SSDs, and don't need defragging

Q Since the advent of SSDs, I've seen repeated advice not to defrag them because it allegedly damages them and reduces their life expectancy. However, the same advice has never been issued about flash memory drives, such as USB memory sticks. Since these use the same basic means of data storage, do the same rules apply?

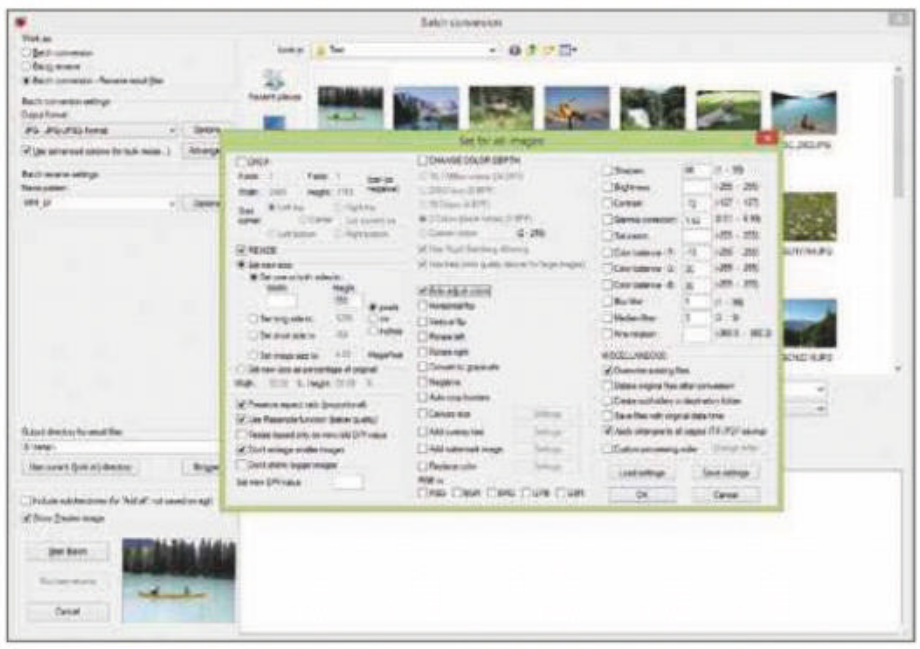
Barry Singleton, via email

A There are several reasons why solid-state drives should not be defragmented, and the main one is that it has no effect on performance. A very fragmented mechanical hard drive is much slower than a defragmented one, but an SSD performs the same no matter how fragmented it is.

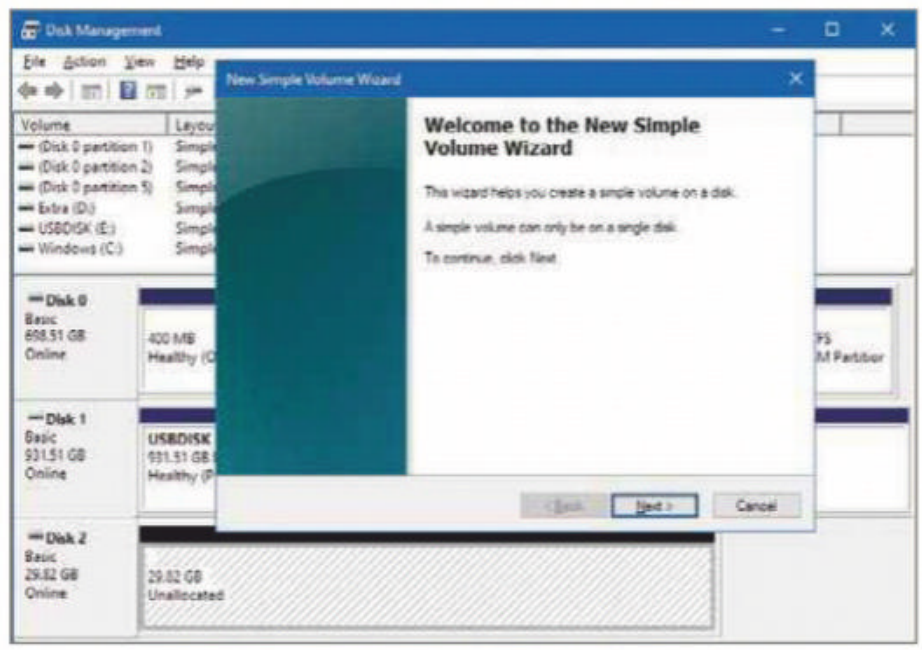
Another reason is that solid-state drives can only be written to a certain number of times. That number is very high and it's unlikely you would reach it in even 10 years of normal use. However, defragging involves a lot of writes and you are using up the quota on something that has no benefit, so it unnecessarily shortens the drive's life.

USB memory sticks are similar to solid-state drives and the defragging advice is the same – don't bother, it has no effect on performance and it uses up the write quota, shortening the device's life.

In theory, memory sticks should last a long time, but we tend to lose them and mistreat them, carrying them in a pocket along with fluff, crumbs, loose change and bunches of keys. This shortens their life, too, so they don't tend to last as long as the SSDs installed in PCs.



With the correct plugin installed, IrfanView should be capable of reading and converting Photo CDs



Prepare unallocated hard-drive space with the New Simple Volume Wizard

format, such as JPEG.

Try IrfanView (www.irfanview.com). If that doesn't work, go to the plugins page (bit.ly/ivplg481) and get the iv_formats.zip plugin, which adds Photo CD support. ImageMagic (imagemagick.org) and pcdtojpeg (pcdtojpeg.sourceforge.net) should also work.

HARDWARE

Reclaim unused hard-drive space

Q I bought a 2TB USB hard drive from a friend who didn't need it anymore – he does a lot of video recording and editing, and needs even bigger drives! I have used various utilities to look at the drive and there appears to be 200GB of space that is unallocated. Can I use this? Ideally, I would like one big drive that uses all the space.

S Knight, via email

A There's no point having 200GB of unused space on a hard drive. Since your drive is second-hand, the previous owner may have set up and used the space to store personal information, and then erased the partition before selling the drive.

It's a good idea to wipe everything on a used drive before you put your own files on it. Plug it in and power it up, then open Explorer, right-click This PC and select Manage. Select Disk Management under Storage to see the internal and external drives and partitions.

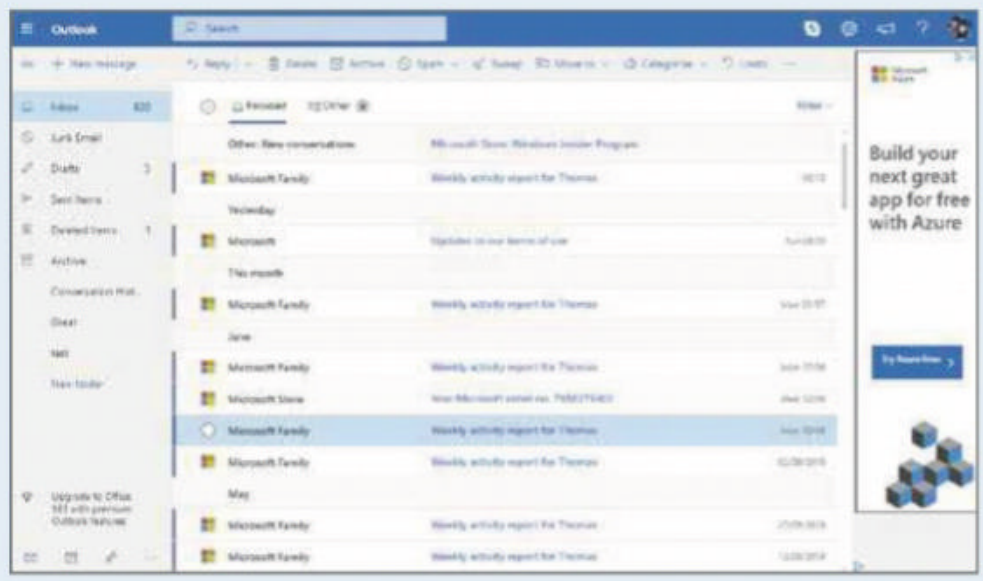
Right-click each of the partitions on the external drive and select 'Delete volume'. The drive can then be right-clicked and a new volume created using all the space. Right-click it and select New Simple Volume, then follow the steps in the wizard that appears.

EMAIL

Switch email providers

Q I have broadband internet provided by TalkTalk and a TalkTalk email account. I am thinking of switching to another internet provider and am currently shopping around and waiting for a good deal to come up. When I switch, will I still be able to access my email account?

Will Mason, via email



Switch from your ISP email to a popular email service as soon as you can, so you don't lose account access if you change ISP

A We advise against using an ISP's own email address because it can be a major hassle switching email accounts from the old company to a new one. Cut the tie now and use an email service that is independent of your ISP. Microsoft Outlook and Google Gmail are obvious ones, but there are many more, such as Yahoo, GMX, ProtonMail, Zoho Mail and iCloud Mail (if you also have an iPhone or iPad). All these email services are free and can be accessed in a web browser on your PC. Apps for the services are available for phones.

Switch email accounts now – don't wait until you move to a new ISP. Sign up for a new email account at one of these email providers and start using it. If you have stored emails containing important information, send them to your new account.

If you go into the settings for an email account, you'll see there is almost always an option to forward new messages to another email account. Set this up on your old account to forward everything to your new account. When you receive new emails, tell the sender that you have a new email address. This may involve signing into your online accounts, such as your bank, gas and electricity supplier, and changing your email address.

Eventually, everyone will be using the new address and the old one won't be needed. You can then easily switch your ISP whenever you want.

This fortnight Roland has cleared space on his Google drive, which became so full it wouldn't accept a single email

Readers' Helpdesk

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

READERS RESPOND

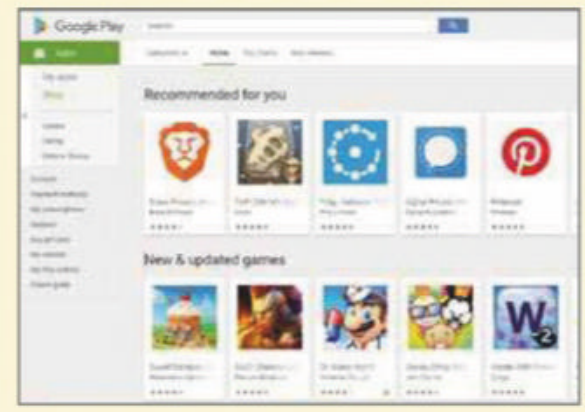
Back Issues disc winner

GOOGLE

Check that Google Play is working

A In response to Gillian Fields' letter about Google Play not logging her in (Issue 479, bit.ly/webuser479), it may be an account change or an error at Google's end. See if you can sign into your account using a web browser. If you can, check that you haven't changed your password recently, because your device might be logged out. Log into myaccount.google.com and see if your device is listed in the section that shows logged in devices. If it isn't, go into Settings, Accounts, click the + button, then click Google and sign in. If none of these steps help, back up your device, then go into the Factory Reset menu and reset it.

Flynn Farrow, via email



Is Google Play playing up?

CAN YOU HELP?

webuser@webuser.co.uk

You can seek help or suggest solutions to other readers' problems by emailing webuser@webuser.co.uk or via www.facebook.com/webusermagazine or twitter.com/webusermagazine.

TWITTER

Q Like many other users, I dislike Twitter's new (and unnecessary) update. It's all a bit too smartphone-like for me. Does anyone know how I can switch back to the old view?

John Jackson, via email

HARDWARE

Q Is it still worth buying a laptop with a DVD drive? Many new models don't have one. I don't mind streaming media, but I'd probably pay extra for an optical drive. Am I being silly?

George Stapleton, via email

EBOOKS

Download your ebook library to a new Kindle

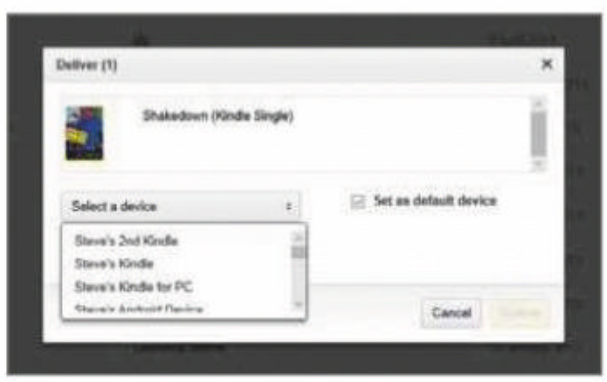
Q In 2010, I was given my first Amazon Kindle e-reader. It probably contains around 300 books, but sadly I mislaid it when moving house. Can I retrieve those books from the Amazon cloud to read on my new Kindle Paperwhite? The Manage Your Devices section only shows my purchases from the past year.

Peter Kenny, via email

A One of the *Web User* team ran into the same problem recently, so hopefully we can help you get your old library back. Once you've bought a book, it's yours, so you can read it on any device registered to your Amazon account. You can do this on your new device by pressing the Home button and switching the view from On Device to Cloud – the option is located under the ribbon in the left-hand corner. This displays all the Kindle books connected to your account, and you can download each title by tapping the cover.

You can also push ebooks to your Kindle via amazon.co.uk. Log into your account, then visit 'Manage Your Content and Devices'. You should see a list of all your purchases. Beside each title, you'll see three dots. Click this for the option to 'Deliver to Default Device & Others'. Here you can send the book to a particular Kindle and create a default device, if you haven't already. Click Deliver and your Kindle will download the ebook.

Steve Clark, Features Writer, Web User



Buying a new Kindle device doesn't mean you lose your old ebooks

HARDWARE

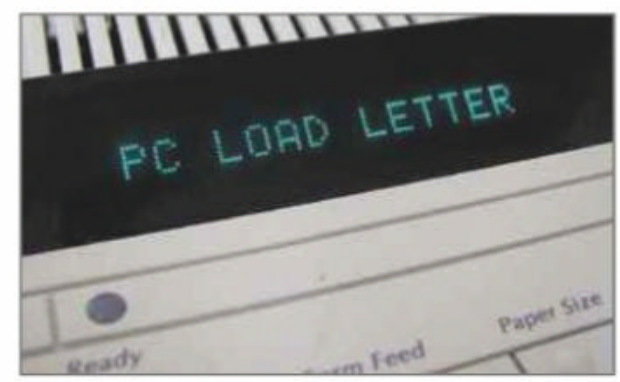
Stop the 'PC Load Letter' error message

Q Does anyone actually know what the printer error message 'PC Load Letter' means? I've seen references to it several times lately, including in unfunny internet memes, and I'd never heard of this problem before. Is it serious?

Clive Potts, via email

A If you see this message on your printer, don't panic – you won't need to buy a new one. While 'PC Load Letter' sounds incredibly vague, the error itself is straightforward. Your printer is telling you that you've tried to print a letter-sized page, but you don't have the correct paper. As such, the fix is to reprint the letter using the correct document size. The reason you've seen this mocked online is because it's a reference to the cult Nineties film *Office Space*.

Steve Clark, Features Writer, Web User



All your printer wants is the right size of paper – is that too much to ask?

Your Top Tips

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

TOP TIP

Back Issues disc winner

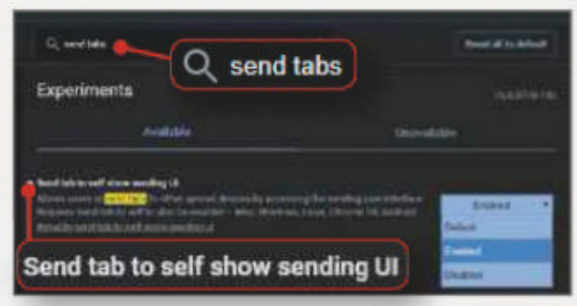
BROWSERS

Send tabs to your linked devices

Did you know that you can activate a hidden feature in Chrome that lets you send tabs to your other devices? I find this particularly useful when I'm browsing the web on my computer and want to continue on my Android phone. In the address bar type: `chrome://flags/#enable-send-tab-to-self-show-sending-ui`

Alternatively, search for 'send tabs', enable it, then relaunch the browser.

Now when you right-click a tab, you'll see the option to 'Send to your devices'. Press this, then wait for Chrome to send the tab's contents to any devices that are signed into your Google account.



Send a website to Chrome on other devices

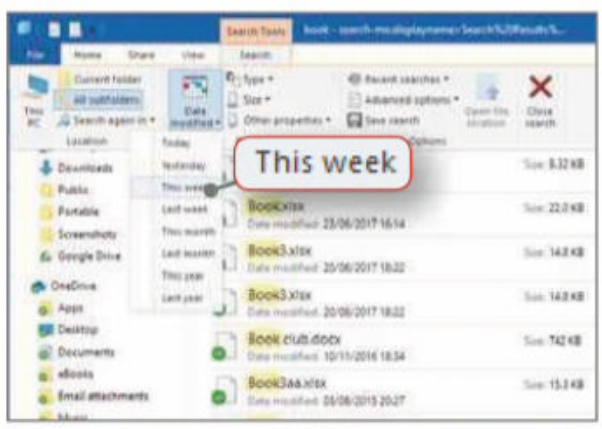
Karl P Phillips, via email

GENERAL PC

Search for files by date

Enter a search into File Explorer's search box, wait for the results to appear, then click Search in the menu bar to show the Search tab. Click 'Date modified' and you can then filter your results to show only files that were created today, yesterday, last week, last month or last year. If you know roughly when a file was created, you can find it more easily by showing files from around that date.

Brian Grant, via email



Filter your search results by date to make files easier to find in File Explorer

GENERAL PC

Manage multiple desktops with the keyboard

Multiple desktops are extremely useful when you want to keep track of separate tasks. I use them all the time, because they let me run my hobby apps in one space and my work apps in another. I always knew you could switch between these on the login screen, but I only recently discovered keyboard shortcuts for toggling between desktops. To open a new desktop, press Ctrl+Win+D. To close it, press Ctrl+Win+F4. You can also switch between desktops by pressing Ctrl+Win+Left and Right cursor keys. Finally, to see all the desktops that are open, press Win+Tab. I find that these shortcuts make managing multiple desktops much quicker and easier.

F McNulty, via email

ANDROID

Use your phone even when the screen breaks

Here's a good tip for clumsy folks. Have you ever wondered how you'd access important files on your Android phone if the touchscreen smashed? It's easy enough to buy a new phone and recover any files and apps that are saved in the cloud, but that won't help you retrieve important information saved on the device itself. In this situation, you need an OTG adapter. This lets you control your phone by connecting a USB mouse, so you can get the data you need without using your broken touchscreen. It's easy to set up. Plug one end of the cable into your phone and attach a mouse to the other end. Provided your phone supports USB OTG, you can use the mouse to open Settings, 'About phone'. Select Software, find the build number and click this seven times to unlock Android's 'Developer options'. From here, switch on USB Debugging. Now you can connect your phone to a computer via USB to transfer files and media from the phone.

If your screen is not only shattered but completely blank, try a free recovery tool such as MiniTool Mobile Recovery (bit.ly/recovery481). Be warned, though: it's a bit limited.

John Oxford, via email

EMAIL

Silence Gmail messages

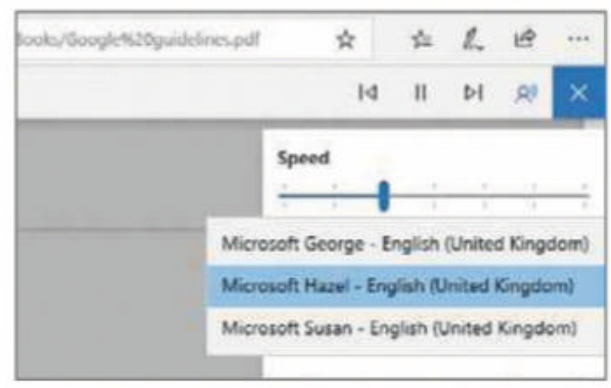
When you right-click a message in Gmail, the menu offers a Mute option. This has nothing to do with audio – instead, it stops Gmail showing you any related messages. For example, if you've had enough of a particular conversation (a sequence of emails and replies), you can use the mute option to hide it. It's still there, but you have to go to the sidebar and click More, All Mail to see it.

Dianne Bewley, via email

GENERAL PC

Turn ebooks into audiobooks

I find Edge particularly useful for reading PDF files. As long as you haven't changed the default settings, PDF



Load PDF ebooks into Edge and have them read to you

documents and ebooks should open in Edge when you double-click them. A toolbar at the top of the page offers some useful features, while a pin icon on the far right lets you toggle between a fixed toolbar at the top and a floating toolbar that hides automatically when you start reading a PDF, giving you a bigger page area.

Another useful toolbar feature is the 'Read aloud' button. As the name suggests, this converts a PDF's text into speech, which means you can turn an ebook into an audiobook. You can then sit back and listen to it rather than reading it. When Edge starts speaking, a new toolbar appears that lets you choose from one of three voices and set the reading speed using a slider.

Gareth Day, via email

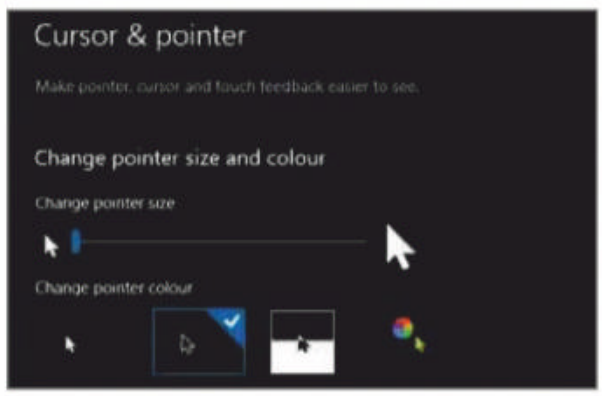
GENERAL PC

Change your mouse pointers

Microsoft recently overhauled its mouse pointer options, allowing you to make them bigger and more visible on the screen. Apparently, it's all part of the company's recent drive to make the platform more accessible. My eyes aren't what they used to be, so I'm certainly not complaining!

To change your pointer's size and make it more colourful, search Start for 'pointer size'. In the menu that appears, you can adjust the cursor's size using a slider. Below this you'll see the option to 'Change pointer colour'. If you want something other than the standard White or Black, click the colour wheel. Finally, you can adjust the cursor's thickness, which is useful if you often lose track of it while typing.

Dave Greggs, via email

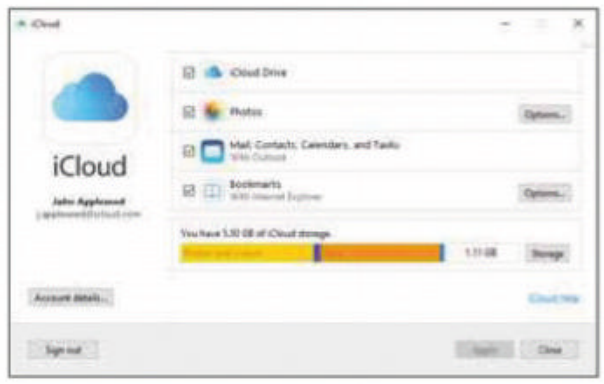


Microsoft's latest accessibility options make your mouse pointer easier to see

APPLE

Get iCloud on Windows 10

At last, Apple and Microsoft have developed a Windows 10 iCloud app (bit.ly/icloud481). One of my biggest problems with Apple is that it's so insular, and I know others feel the same way, so this partnership can only be a good thing for customers. Like OneDrive, the new iCloud app integrates with File Explorer, which



A new iCloud app lets you sync between Apple's online storage and Windows 10

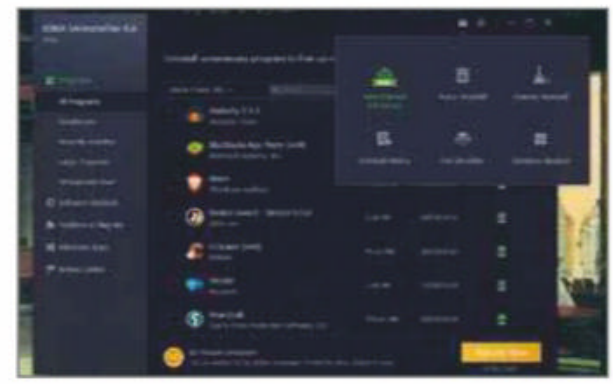
makes it much easier to sync all your media and files on your computer.

Michael Seward, via email

SOFTWARE

Uninstall any program

One of my biggest computing bugbears is when I install a new program temporarily to try it out, then discover that I'm stuck with it because it doesn't appear in the Uninstall section of the Control Panel. For anyone else who has been frustrated by this, I have good news: download the free IObit Uninstaller (bit.ly/iobu481). Open the program, click the Tools icon, then choose Easy Uninstall (or use the keyboard shortcut: Ctrl+Alt+U). A target icon appears on your screen. Drag the crosshairs over any program you want to remove – literally setting the program in your sights – and the tool will ask whether you wish to Uninstall or Delete the software (you may see other options, too, depending on the program). Make your choice, confirm it in the pop-up and IObit Uninstaller takes care of the rest. Don't



Uninstall any program quickly and easily with IObit Uninstaller

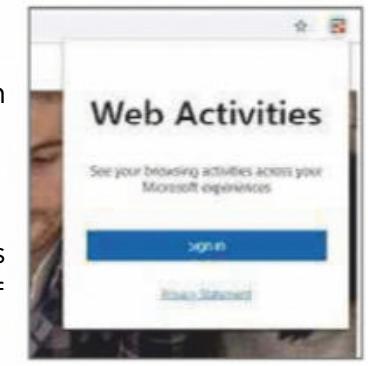
forget to right-click the target and exit Easy Uninstaller when you've finished.

Arthur Haskell, via email

BROWSERS

Add Google Chrome activity to Windows 10 Timeline

I'm a big fan of Windows 10 Timeline because it lets me jump quickly to files I've opened recently. However, because I don't use Microsoft Edge – at least, not until Edge Chromium is finally released – Timeline has been next to useless for accessing web pages I visited in Chrome. If this problem sounds familiar to you, I recommend Microsoft's Chrome extension Web Activities (bit.ly/timeline481). Once installed, it adds your Google Chrome browsing history to Windows' Timeline.



View your Chrome browsing history in your Timeline

Heather Jules, via email

BLUNDER OF THE FORTNIGHT

GENERAL PC

Don't waste time on Windows Updates

Windows 10 is amazing, but sometimes when you try to update it through the Settings app, it gives no indication that anything is wrong until you realise that it's stuck. When I updated from version 1803 to 1903, for example, the download took six hours to reach 100% and then stayed there, even while my laptop was in Battery Saver mode. When I noticed this, I ran the troubleshooter and discovered a WU Database Corruption problem. If Windows Update had run the troubleshooter at the beginning of the process instead – when it says 'Checking for Updates' – and then applied fixes automatically, maybe I wouldn't have wasted my day trying to download a corrupted update.

I paused updates to avoid repeating the problem, then downloaded the Cumulative Updates from the Microsoft Update Catalog and installed the Microsoft Update Standalone Package, which contains a version of the file that isn't corrupted. Now I have to download and install feature updates using the WUA, rather than leaving Windows Update to detect it. If Microsoft integrates this into a future feature update, maybe users will be less reluctant to update and waste a chunk of their day, as I did.

Giovanni Gesugrande, via email

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

Inbox

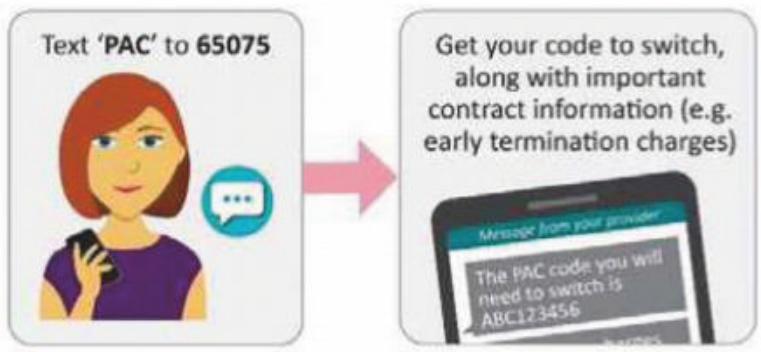
You can let us know your views via:
editor@webuser.co.uk, www.facebook.com/webusermagazine
and www.twitter.com/webusermagazine

Star Email

Back Issues disc winner

Three won't give me my switching code

I was interested to read your news story in Issue 479 about the new service that lets you get a PAC code by text message ('You can now switch mobile provider by text message', bit.ly/webuser479).



My existing contract with Three terminates at the end of August, so I found out how much it would cost to terminate early. Then I sent a text, as described in your article.

The text was quickly acknowledged, but rather than receiving a PAC code I was directed to Three's customer service team in India. An agent then spent 30 minutes ignoring my request and trying to sell me new services. In the end I became angry. The agent told me a PAC code would be sent within an hour, but it never arrived.

The next day I visited a local Three shop, where I was told that they had no authority to issue a code and that I'd have to contact India again. When I did so, I faced the same bullying and terminated the call.

This is precisely the sort of behaviour the new service is supposed to prevent. Should I report this abuse to Ofcom?

Tony Steele, via email

***Web User* says:** Three is one of the mobile networks that signed up for Ofcom's Text-to-Switch service, so it should have given you your PAC code via text message without argument. However, the system has only just been introduced, so it's possible that there are still a few teething problems. Ofcom's rules state that Three must issue your PAC within two working days of your request or give a reason for not doing so. If you continue to have trouble obtaining your PAC code, you can complain to Ofcom by phoning 0300 123 3000 or filling in the online monitoring form at bit.ly/ofcom481.

Spotify stopped my PC shutting down

Like the winner of your Star Email in Issue 479, I discovered Spotify through your magazine. However, I accidentally discovered something surprising about the program, too.

When shutting down my PC, a message flashed up briefly stating that Spotify was preventing the operation. This was strange because I hadn't been using the program. When I next booted up, I checked the Startup section in the Task Manager and there was Spotify. Even more surprising is that it was showing high disk usage even though I hadn't downloaded anything. I decided it was time to disable it!

J Zarach, Market Drayton

Why can't Microsoft get updates right?

I purchased Issue 478 of your magazine (bit.ly/webuser478) after seeing 'Install the Windows 10 May Update' on the cover. Silly me.

Following your instructions, I opened the Microsoft website using the bit.ly link, and Microsoft confirmed that my PC was suitable for the update. After downloading it, which took about two hours, I then started the installation. This took three hours to get to 30%, then stopped and displayed the message: "uninstalling changes made to your PC". After another hour, the PC restarted without the update.

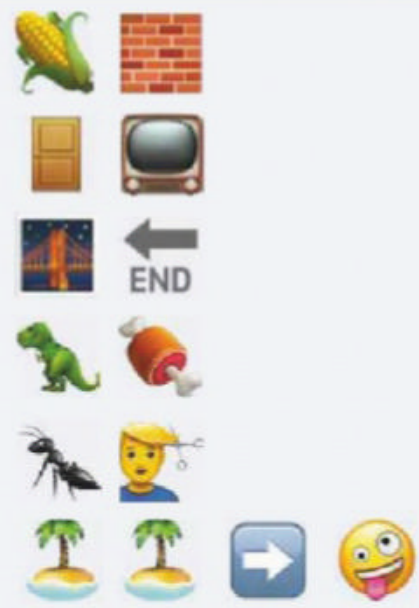
Foolishly, I decided to give the update another try the next day in case it was just a glitch, but the same thing happened. That's 12 hours of my life I'll never get back! Can you please ask Microsoft why it's incapable of producing a Windows update that works?

I'd love to use an operating system that doesn't involve all this time-wasting. I installed Google Chrome OS on my wife's laptop because she was sick of Windows interrupting her with updates. I would do the same, but I don't want Google to track my every move,

This problem was highlighted in your 'Who's watching you online' cover feature in the same issue of your

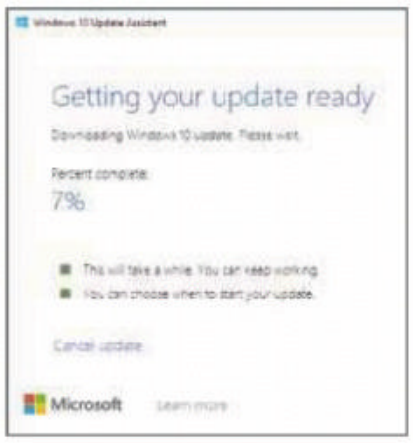
Quiz Answers: Issue 480

1 *Cornwall*
2 *Dorset*
3 *Bridgend*
4 *Wrexham*
5 *Antrim*
6 *The Isles of Scilly*



WINNER!
Well done to **Barry Morgan** who wins a Web User Back Issues Disc

WIKIPEDIA ARTICLE
Firefox



magazine. I was shocked when I checked my purchase history in my Google account, and found that it had recorded all my Amazon purchases. What gives Google the right to read my emails? I will be closing my Gmail account forthwith!

David Thomson, Cramlington

Don't charge your devices overnight

I was pleased to see your article in Issue 479 about how best to preserve battery life, which is something I've tried to drum into my family, with limited success. Especially important is your point about not leaving a device sitting at 100% charge all night. I actually prefer not to charge to 100% if I can avoid it.

Instead, I charge when a device gets down to around 45% and stop at 95% or so. However, your suggestion of charging a bit in the evening and then again in the morning seems impractical. My own method is to have my chargers on time switches. I've set it up so that my devices charge for a couple of hours at night before the charger shuts off. I could then turn on the charger again in the early morning to top up. I don't find I need to do this but others might.

Mike Cole, via email

To Amazon or not to Amazon?

I was interested to read your 'Stop shopping at Amazon' article in Issue 478 and your exhortations not to "make Bezos even richer".

Unfortunately, you haven't taken your own advice. In your group test of multifunction printers in Issue 479, every device you test has a link to buy it from Amazon!

Apart from leaving yourself open to accusations of double standards, do you not think readers of a periodical called *Web User* are capable of searching for the printers that interest them without being led to the online store you so derided in the previous issue?

Brian Parker, Sussex

What you say...

WILL YOU PAY £5.99 PER MONTH FOR THE NEW BRITBOX STREAMING SERVICE (see page 21)?

Nope! I already begrudge paying the licence fee, which costs more than Netflix and Amazon combined. I'd rather the BBC had ads and no fee.

Caroline Chapman @cantstopthesgnl

No thanks. You're basically paying for TV you've already paid to see.

Si Mellor

I've seen some of the programmes you get for the subscription. They'd need to pay me £5.99 to watch it. Hopefully this BritBox service means the licence fee will be cancelled.

Cunningham Hutchison @MrChutchy

They'd need to offer content that hadn't been shown on TV before to make me even remotely interested. Then the programmes would have to appeal to me – so it's not likely.

Lynn Sharpe

I'd only pay if the BBC Archive made available all the recovered "missing" episodes of *Top of the Pops* they've had in the vaults. Otherwise no!

Roy Ellaby @elan4872

No thanks. I detest the money-grabbing BBC. I don't have a licence and I don't watch the BBC or any live TV, and I refuse to pay the BBC in any way! I'll stick with Netflix, thanks!

Marie Davies

I'm not paying money for repeats. I'd rather shell out for Netflix and watch original movies and programmes.

Jason 'Boz' Bowyer

No, most of the programmes the BBC and ITV make are a pile of crap.

Stephen Scotford

No. Programmes I want to watch more than once I buy on DVD and Blu-ray. The issue with all streaming options is that you can't guarantee what will be available in the future as they move programmes on and off their servers.

Rich Grove

DO YOU THINK THE POLICE SHOULD STOP USING FACIAL-RECOGNITION TECHNOLOGY (see page 40)?

Yes, MPs have got it right for once. The technology isn't ready yet.

Chris Cole

How else are they supposed to test it if not in the real world? The technology will improve eventually like everything else. CCTV is already everywhere, so why worry about this?

Gary Olsen

No. If you haven't done anything wrong, it's no problem, and if you have, it serves you right.

Paul Emsley

It's like 1984 but 35 years late.

Iain Kenworthy-Neale

They should be forced to delete the images they gather after 48 hours, unless a suspect is identified.

Craig Gannon

WHAT DO YOU THINK OF TWITTER'S NEW LOOK (see review on page 14)?

I tried it a couple of months ago but switched back to the old version.

Martin Phillp

It looks better, but now I need to design a new graphic for my website.

Liz F Lambeth

No idea. I use TweetDeck (www.tweetdeck.com) to access Twitter.

Carl Waring

It's a bit like being shouted at to begin with, but you get used to it.

Terry Gold

Page 404

Barry Collins praises the piece of technology that saved his summer holiday

Noise-cancelling headphones to shout about

Technology can be a proper pain in the backside. Facebook knows your inside-leg measurement, even if you've never set foot on the site; Wi-Fi's less reliable than an MP's expenses claim; and my printer pretends it's run out of ink six months before it actually has. But technology can also be magnificent, and if you're jetting off on a long-haul flight this summer, I urge you to make one never-to-be-regretted investment: noise-cancelling headphones.

The headphones I'm talking about are Sony's WH-1000XM3 – widely regarded to be the best noise-cancelling cans on the market at the moment, and so they flipping well should be at around £270. Seriously, though, suck it up, because they are immense and quite possibly the reason I'm not doing time for infanticide following my return flight from Cancun this summer.

I knew I had to have those headphones the moment I booked our seats on the flight. The plane layout meant that one of our family of four would have to sit next to complete strangers for the 10-hour journey and that inevitably was going to be me.

On the way out, I struck it lucky and was sat next to a retired couple, who showed no interest in talking to me and exhibited no troubling personal hygiene problems. Karma bit me on the backside on the way back, though.

As I approached my seat, all I could see was a woman sat next to the window and nobody in between her and my aisle seat. My faint hope of a spare seat was kicked in the kneecaps when I reached 34C to find three-year-old Charley sat in the middle seat, tucking into a mountain of Fruit Pastilles. "Are you sitting next to me?" she asked, as my jaw dropped into the hold. Her mother shot me a look of apologetic pity, then opened a can of Coke for Charley to stop her talking for 15 seconds or so.

> "You'll be shocked to hear that a kid smacked up on sweets and fizzy drinks showed little interest in sleeping on the overnight flight"

You'll be shocked to hear that a kid smacked up to her few remaining milk teeth on sweets and fizzy drinks showed little interest in sleeping on the overnight flight. But it didn't really matter, because 20 minutes into the journey – after surrendering half my bag of Skittles and our third rendition of Wheels on the Bus – I slipped on my Sonys and blanked Charley out.

I couldn't hear a thing. No Charley, no engine noise and no dull pings of the call button when Charley's mum wanted her hourly top-up of Bacardi and Paracetamol. Nothing but the music or movie soundtrack that I wanted to listen to as I drifted into a fitful doze. The noise-cancelling is absolutely sensational. And given that these things have a genuine 30-hour battery life, I didn't need to recharge them once on the entire trip, even though they were in near constant use on both flights.

Of course, the headphones couldn't save me from every long-haul inconvenience. I was still interrupted a dozen times when Charley needed to drain the glucose from her system. But in 10 years' time, when Sony invents the toddler-cancelling body suit, I'll be the first to place a pre-order.

Illustration: Andrew Torrens

Do you agree? Let us know at webuser@webuser.co.uk

WebUser

SUBSCRIPTION OFFER
FOR MORE INFO SEE PAGE 62

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