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Best phones under £250 p22

Issue 466

# WebUser

9 - 22 January 2019

/ Best software / New apps / Turn to the dark side



**DON'T CLICK  
THERE!**

Avoid the 'dark patterns'  
online that scam you

p50

# DOWNLOAD ANYTHING

using a

# VPN

**+ ?  
FAKE YOUR  
IDENTITY  
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**PLUS**

Make Extra Space For  
**HUGE** Downloads

They're getting bigger –  
will your PC and phone cope? p48



Store Photos Online Without  
Google or Flickr Limits

Turn your old PC into a photo server p58

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02>



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## Cross the Atlantic by VPN

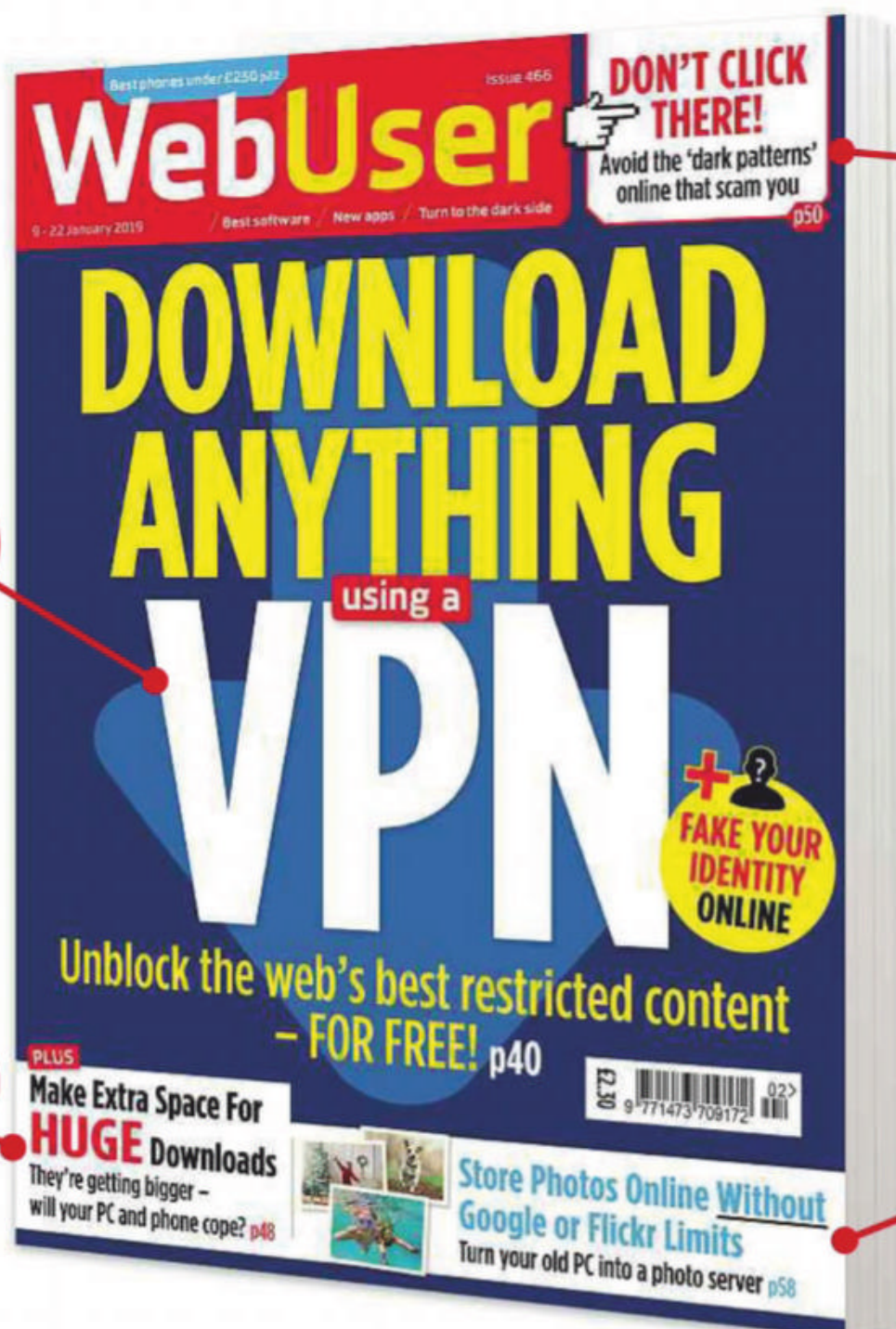
**W**hen the Pilgrims sailed from Plymouth on the Mayflower in 1620, their voyage to the New World took 66 days, during which they lost five passengers and several flat-topped hats. By the 1970s, Concorde got you from London to New York in just three and a half hours, probably while sharing a bottle of bubbly with Joan Collins.

Now, thanks to the miracle of VPNs, you can be – or at least pretend to be – in America in a matter of seconds. But what will you do when you get there? Visit a Wendy's restaurant? Send a letter to

The Proclaimers? Or download lots of stuff that's unavailable in the UK?

If you said the latter, then you'll love this issue's cover feature, which explains not only *how* to use a VPN to access restricted content, but reveals all the amazing things that a VPN lets you do, from streaming forbidden videos to installing incompatible apps and encrypting your Skype calls. You don't even need a passport!

**Robert Irvine, Editor**  
[robert\\_irvine@dennis.co.uk](mailto:robert_irvine@dennis.co.uk)  
[#webuser](#)



### 5 Things you'll learn this issue

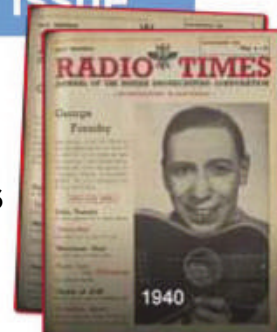
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# VPN

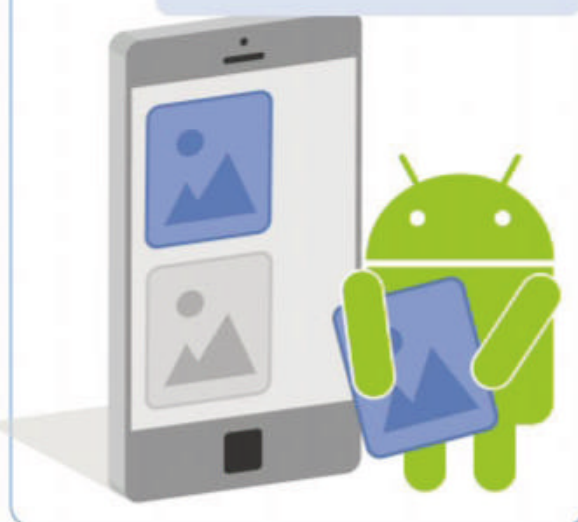
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WEB USER  
PRINTED IN THE UK



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Workshops, tips, projects and problem solving

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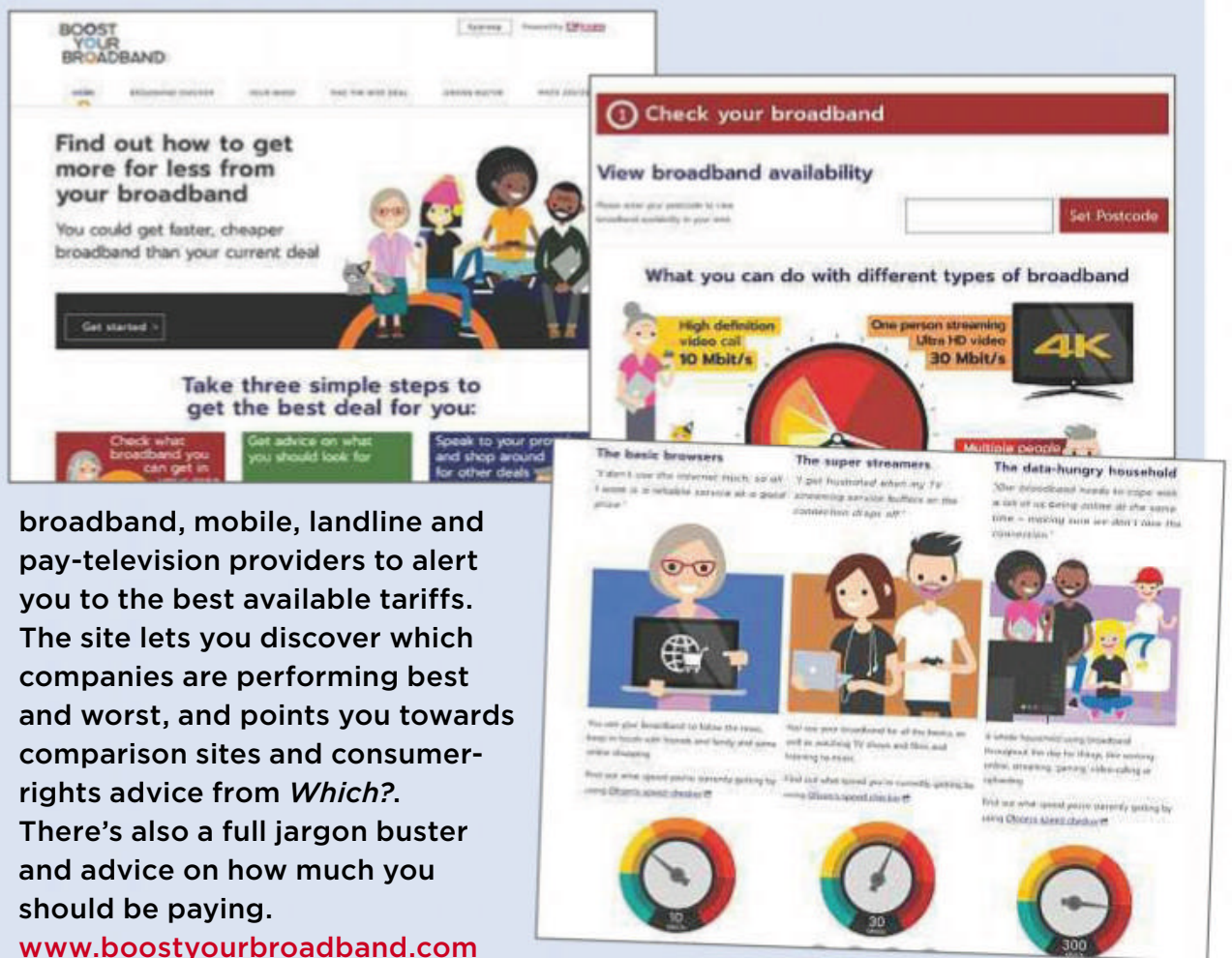
# What's New Online

## Boost your broadband with Ofcom

**A**verage broadband upload and download speeds have increased significantly over the years, but Ofcom says only half of the 94% of the UK homes and offices that could be receiving superfast broadband are taking advantage of it. In a bid to change this, it has launched a new consumer campaign and accompanying website that lets you enter your postcode to discover the type of broadband available to you.

The site highlights how fast your broadband should be, based on what you use it for. Basic broadband users require a speed of just 10Mbps, for example, while for heavy household use it apparently should be 30 times faster. A link points you to a speed checker to measure your current speed, and from there the site reveals the questions you need to ask of your broadband provider.

Ofcom has created the service as part of new measures that require



broadband, mobile, landline and pay-television providers to alert you to the best available tariffs. The site lets you discover which companies are performing best and worst, and points you towards comparison sites and consumer-rights advice from *Which?*. There's also a full jargon buster and advice on how much you should be paying.

[www.boostyourbroadband.com](http://www.boostyourbroadband.com)

## Conduct your own orchestra

[semiconductor.withgoogle.com](http://semiconductor.withgoogle.com)

Forget strumming an air guitar or tapping your toe in time to the music. With Google's fun new artificial intelligence experiment in your browser, you can wave your arms around in front of your webcam to control a virtual orchestra.

Semi-Conductor uses hundreds of audio files from recorded instruments and a machine-learning library called PoseNet to map your movements. It asks you to position your head and arms within a frame before playing Mozart's 'Eine Kleine Nachtmusik' and vibrating to your tune.

Moving from side to side controls which section of the orchestra plays, affecting the instrumentation in real time. The faster you move your arms, the quicker the orchestra plays, while raising or lowering your limbs makes the music louder or quieter. Just be careful you don't accidentally hit anyone around you!

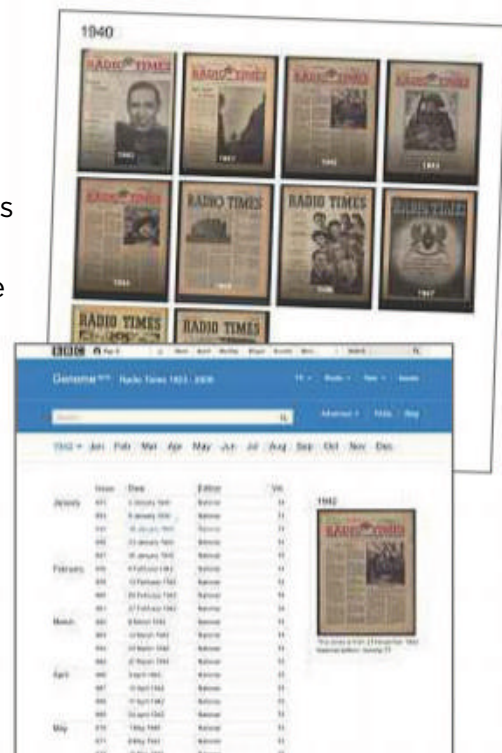


## See *Radio Times* listings from the 1940s

[genome.ch.bbc.co.uk](http://genome.ch.bbc.co.uk)

During World War Two, television broadcasting ceased, radio services were reduced and paper was rationed, so it's no surprise that the *Radio Times* was rather thin in the first half of the 1940s. You can see how this affected the magazine by visiting the BBC Genome Project – an incredible database of programme listings that has made every issue of the *RT* from the 1940s available online for the first time.

The latest collection joins digitised issues from 1923 to 1939. You can read each magazine in full by using your cursor keys to move from page to page. As you do, you'll get a wonderful insight into British life and broadcasting history, from fascinating adverts and unique glimpses of wartime Britain to the introduction of long-running shows such as *Desert Island Discs* and *Woman's Hour*. TV listings without the *Radio Times* scans are available from 1950 onwards.



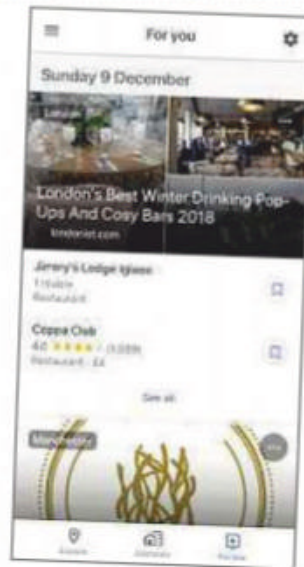


We pick the 10 best things you must do on the web this fortnight

## Get personalised travel information

[maps.google.co.uk](https://maps.google.co.uk)

Google Maps' For You tab has finally found its way to iOS, to deliver personalised updates and news about the best bars, restaurants and venues in the locations you follow. The tab offers regular recommendations, highlights new openings and links to relevant articles, so you can not only make the most of local amenities but also plan your travels better.



## NEW VOICE COMMANDS

**Get flight prices**  
Tell Google Assistant to “show me flights to [destination]” and it displays a list of airlines and costs, then ask you for dates and offers to email you price changes.

**Check order status**  
A new Siri Shortcut integrated with the Apple Store app lets you check the status of an order without opening the app. Look for ‘Add to Siri’ on your order page.

**Get rid of furniture**  
Alexa can help you arrange free collection of unwanted furniture to the British Heart Foundation. Say: “Alexa, ask British Heart Foundation to collect my furniture” and the charity will contact you within 72 hours.

## Send Instagram voice messages

[www.instagram.com](https://www.instagram.com)

If you can't be bothered to type a text message and you don't want to make a phone call, you'll find Instagram's new voice-messaging feature handy. This lets you record up to a minute's worth of audio by tapping and holding the microphone button in the text-entry field of the direct-messaging section. As soon as you let go, the message is sent to an individual or a group, which means you'll need to slide your finger carefully to the trash icon if you change your mind mid-recording. Recipients can then listen to your musings at their leisure.

## Discover the most sung-about locations

[bit.ly/songs466](https://bit.ly/songs466)

Start spreading the news: the much-celebrated city of New York has been mentioned in more songs than any other place since the 1960s, topping the table with 161 references. Music Mapped shows you exactly which songs are involved, as well as a host of other places that feature in popular tracks. Choose from nine genres or six decades to browse locations for related songs. Clicking a song title plays the track in Spotify, but it's a shame the actual lyrics aren't shown.



## + Stream Steam games via Raspberry Pi

[bit.ly/steam466](https://bit.ly/steam466)

Steam users can now stream games from PC to TV via a Raspberry Pi 3 computer. It follows the beta release of the Steam Link app, available for devices running the operating system Raspbian Stretch.

## Reveal future city climates

[bit.ly/city466](https://bit.ly/city466)

This website is in German, but it's based on a straightforward concept: enter the name of a city and it will predict its climate in 2080 by drawing a comparison with a current-day locale. London will be as hot as Lima in Peru, apparently.

## Use a Giphy keyboard

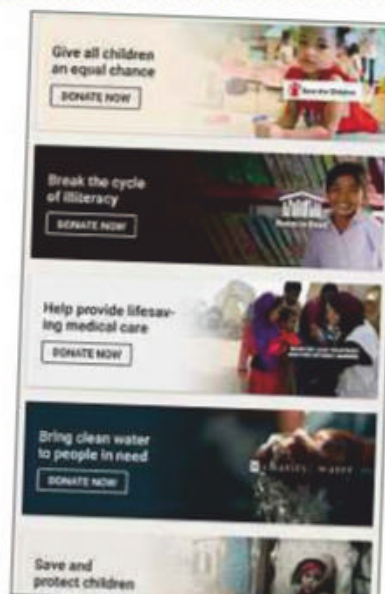
[giphy.com](https://giphy.com)

Giphy has launched a keyboard extension for iOS 12 to easily share GIFs online. To activate it, open iOS Settings, tap Keyboard, toggle Giphy on and allow full access. Tap the globe icon to find suitable GIFs.

## Donate to charities through Google Play

[play.google.com/donate](https://play.google.com/donate)

The Google Play store has a new charity section that lets Android users donate to a range of good causes. As long as you have a payment card saved, you can donate between £5 and £200 to Save the Children, Room to Read, Médecins Sans Frontières, UNICEF, International Rescue Committee and more. Google promises to hand over 100% of your contributions.





## Facebook ends 2018 with yet more data scandals

### What happened?

Facebook has once again been accused of being reckless with our data, with a report in the *New York Times* claiming the social network offered its business partners access to its users' private data. A separate report revealed that a bug meant photos uploaded to but not shared on the site were publicly leaked.

Records obtained by the *NYT* ([bit.ly/nytimes466](https://www.nytimes.com/2017/09/28/technology/facebook-data-sharing.html)) from 2017 showed Facebook shared data with its partners, including Microsoft, Netflix and Spotify, potentially breaking its own privacy rules. Amazon was allowed to see names and contact information, while Yahoo could access posts that were otherwise not shared. Netflix and Spotify were allowed to view private messages, while Microsoft's search engine Bing was given access to friend lists, without users being asked first.

Facebook said in a blog post ([bit.ly/fbpartners466](https://www.facebook.com/privacy/important-information-about-your-photos-on-facebook)) that such partnerships are necessary for apps and systems to interact, such as sharing your Spotify playlist with friends on the social network or accessing your Facebook account through "social hubs" on your phone. Allowing users to send a message from Spotify, for example, requires 'read' and 'write' access. Facebook said most of those features are actually now gone, and those that



remain are bound by its own privacy policies, with most asking for permission from users first. Whether that convinces users or regulators remains to be seen.

This wasn't Facebook's only data scandal to round off 2018. The company admitted that it had a bug in its photo API – the system that lets other apps connect to the social network and share data. The tool was only supposed to allow apps to access photos specifically posted on a user's timeline, but a flaw let 1,500 apps see every uploaded photo, including images used for Marketplace or Stories, as well as pictures uploaded before the user then decided not to publish them – perhaps they lacked mobile signal or had second thoughts. Facebook holds those images for three days in case users change their mind and decide to post them.

The latest data debacle comes as US regulators filed a lawsuit against Facebook for the Cambridge Analytica incident, in which the private information of millions was abused in political ads.

### How will it affect you?

If you want to see which third-party apps have permission to use your

Facebook data, head to the Settings section of your account. Beneath 'Data access', in the 'Apps and websites' section, remove any apps you no longer use or don't want to have access.

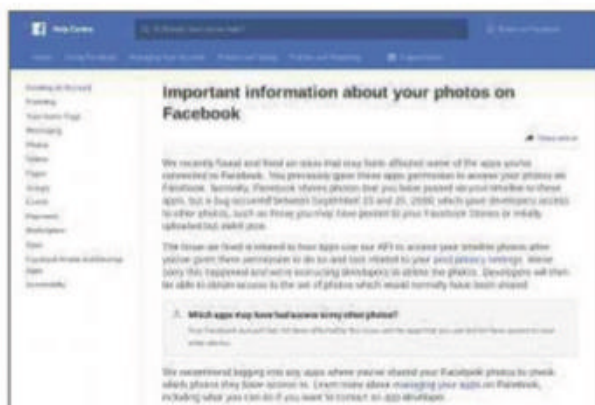
On the photos front, Facebook has said the bug was only live between September 13 and 15, 2018. During that time period, 6.8 million users were affected. If you were one of them, you should receive a notification from Facebook that will direct you to a help page. If you're not sure whether you've seen the notification or not, you can find out if you were affected at [bit.ly/fbcheck466](https://www.facebook.com/help/1015829225225225). Beyond that, there's not much you can do.

If you're tired of Facebook's cavalier attitude toward your data and want to take a break from the site, go into General Account Settings to temporarily deactivate your account. Alternatively, download your data to grab your photos for yourself, and delete your account permanently. However, don't forget that Facebook owns Instagram and WhatsApp, too!

### What do we think?

It's hard to keep track of all the data-sharing scandals, and Facebook's executives are running out of ways to apologise. It's remarkable that Mark Zuckerberg hasn't stepped down as CEO of the company he founded, or been shoved out by angry shareholders.

Perhaps it's even more remarkable that anyone still uses the site, but after putting in so many hours building our profiles and networks, it's not easy to say goodbye and risk losing touch with people. We'd rather see regulators force Facebook to sort out its behaviour, so we can keep on using the social network, rather than have to find a new way to organise our online lives, but it wouldn't be the first social site to lose favour. We lived without Facebook before, perhaps it's time to do so again.



**Facebook's year of data scandals ended with a bug in its photo system**



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

## Women abused every 30 seconds online

### What happened?

Research released by Amnesty International ([bit.ly/amnesty466](http://bit.ly/amnesty466)) found that 1.1 million abusive tweets were sent to women last year, which works out to twice every minute. The human-rights organisation worked with an AI software company to sift through tweets sent to high-profile women across the US and UK, including journalists from a variety of publications and politicians from across the ideological divide. The study found that women were sent the same number of horrible messages regardless of whether they were aligned to the left or right.

Black and minority ethnic women were 34% more likely to be targeted with abuse than white women, with one in 10 tweets mentioning black women found to be problematic.

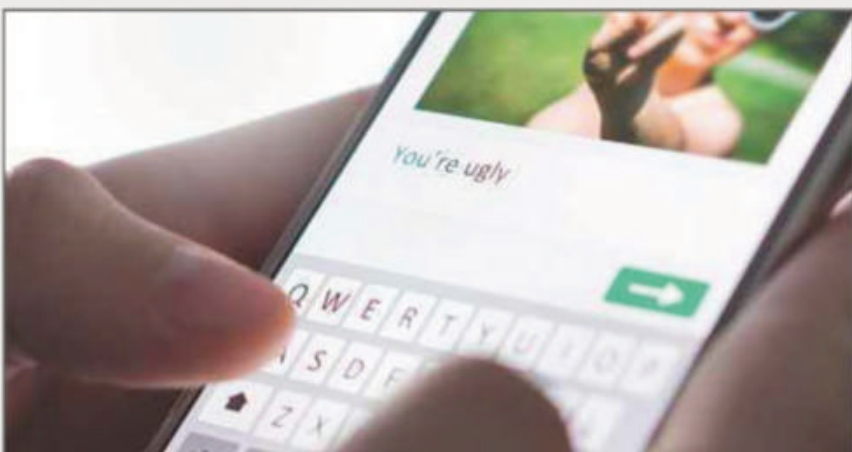
### How will it affect you?

We know that online abuse happens, but it's interesting – and alarming – to have evidence to prove how serious it is for other people. The study doesn't necessarily reveal the level

of abuse faced by all women online, because female politicians and journalists attract more vitriol thanks to their higher profiles, but it's a reminder of what they have to put up with just to get on with their jobs. The researchers are calling on Twitter to do more to prevent abuse, while still allowing freedom of speech, and are again asking Twitter to publish any data it has about the scale of abuse on the site.

### What do we think?

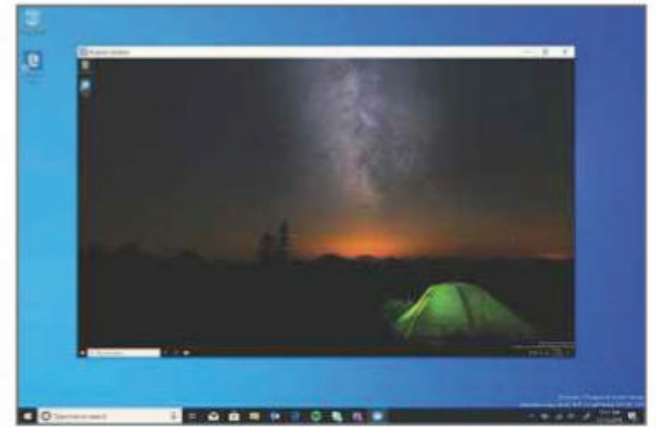
It's easy to forget that a real human being is on the other end of a Twitter profile, whether it's a politician, journalist or even a company you're angry with for providing poor service. Shouting at someone on social media may feel like screaming into the wind, but a human is probably tasked with reading your comments. It's fair to use such sites to complain and criticise, but remember that the recipient is likely to be dealing with a host of angry, abusive messages. A bit of kindness can go a long way.



## Windows 10 adds a sandbox – for some

### What happened?

Microsoft is introducing a useful new security feature for Windows: a sandbox. Windows 10 will be



updated with Windows Sandbox, a miniature, protected version of the operating system that's isolated from your own files.

A sandbox provides a self-contained environment where you can open a file that may be suspicious without worrying about it infecting the rest of your PC. For example, if you've been sent a EXE file as an email attachment, opening it isn't safe; but if you run it inside the sandbox, any damage will be limited. Once you've run the program to check it out, the sandbox will delete everything associated with the EXE file, so there's no fear of malware infecting your system.

### How will it affect you?

Sadly, this welcome new tool will only be available to business and professional users. Sandbox will arrive next year in Windows 10 Pro and Windows 10 Enterprise, and there's currently no indication as to whether it will filter down to Windows Home users. Hopefully, a future version of the operating system will include the

sandbox for the rest of us – once it's proved useful for everyone else.

When it does finally arrive, Windows Sandbox will come preinstalled in updates to either of those versions of the software, and will be free to use. Anyone wanting an early look should keep their eye out for build 18305 in the Windows Insider programme, which is for early adopters and beta testers.

### What do we think?

It's easy to get annoyed with Microsoft's constant bug-ridden updates, but it's worth remembering that the software giant does actually listen to users, and often rolls out useful tools and improvements for free.

The company spotted that business users were creating virtualised environments to sandbox files and sought to make their jobs easier. Because of that, and despite the other challenges Microsoft faces and the many missteps it makes, Windows 10 generally does keep getting better – even if it doesn't always feel that way.



# Met Police tests facial-recognition technology

## What happened?

London's Metropolitan Police has begun testing facial-recognition technology in the capital. The trials conducted just before Christmas mark the seventh attempt by the Met to get its controversial technology off the ground.

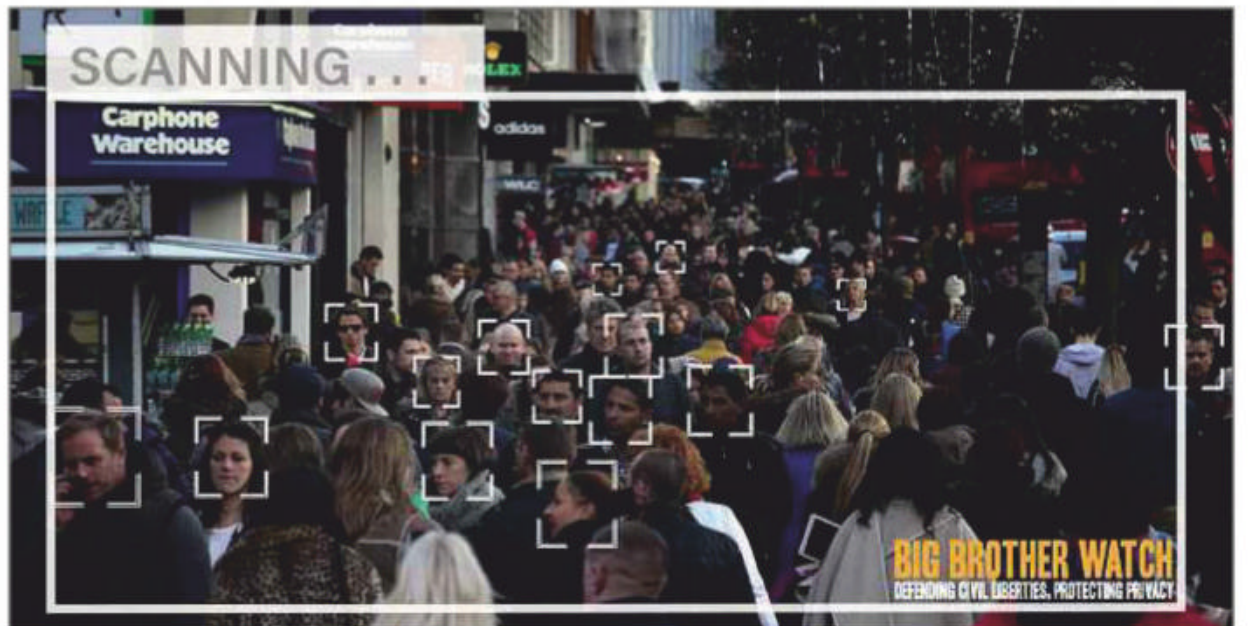
Rather than scanning people without their consent, the Met wants people to volunteer to take part in the testing. Critics of the scheme have been vocal, suggesting that people who turn down the invites will look "suspicious".

Bigger grievances, meanwhile, pertain to issues of privacy. Big Brother Watch ([bigbrotherwatch.org.uk](http://bigbrotherwatch.org.uk)), a prominent civil-liberties advocacy group, has denounced the technology as "authoritarian, dangerous and lawless," stating that it constitutes a "breach of fundamental rights to privacy and freedom of speech and assembly".

On its website, the Met explains that images captured by its cameras are streamed directly to the Live Facial Recognition database, which contains a 'watch list' of offenders wanted by the police and courts for various offences. When the cameras detect a match, an alert is sent to an officer near the scene, who can then decide whether to stop and speak to that person.

## How will it affect you?

If you don't fancy being roped into the



Credit: Big Brother Watch, [bigbrotherwatch.org.uk](http://bigbrotherwatch.org.uk)

face-recognition trial, you should avoid central London. The test areas are said to fall within the capital's tourist hubs, with Soho, Picadilly Circus and Leicester Square touted as prime locations.

Be wary of pranksters, too. The Met has established that only "clear uniformed" officers will be carrying out trials. The Live Facial Recognition system stores faces matching the watch list for 30 days, while all other images are reportedly deleted immediately. The Met says that anyone can refuse to be scanned, and it's not an offence to actively avoid being scanned.

## What do we think?

The Met's previous trials of facial-

recognition technology have a mixed record, to say the least. A trial last July led to a grand total of zero arrests, while a May study found the software flagged false positives in up to 98% of cases.

In the meantime, we're pleased that Big Brother Watch is ploughing on in its role as a watchdog; it recently took to Twitter to name, shame and snap one of the facial-recognition vans conducting the trials. "This looks an awful lot like covert surveillance," the group commented on a picture of the seemingly innocuous plain green van.

See our FAQ on page 38 for more about the police's growing use of facial-recognition technology and predictive-crime detection.



## FIRST LOOK

### Palm

[bit.ly/palm466](http://bit.ly/palm466)

With smartphone screens steadily expanding and pockets bulging, there's plenty of space in the mobile market for a phone that fits comfortably in the palm of your hand. Palm, best known for its PalmPilot PDA from the mid-1990s, is hoping that smaller is the way forward with the launch of the tiniest and lightest handset that we've ever seen.

Intended as a secondary device – or something for the holidays – the credit card-sized Palm phone has a minuscule 3.3in screen and weighs a mere 60g. Despite its diminutive size, it comes reasonably well equipped, with an octa-core 1.4GHz processor, 3GB of RAM and 32GB of onboard storage, which can be expanded by



a further 256GB via microSD. There's a 12-megapixel camera on the rear of the phone and an 8-megapixel selfie snapper, giving it the capabilities of some handsets twice its size.

Sadly, the compact size of the Palm phone makes for some serious flaws. First, there's no 3.5mm headphone jack, which is fine if you always use Bluetooth but frustrating if your favourite

headphones are wired. Second, the battery is only 800mAh in capacity, which in our tests only lasted for 3 hours and 37 minutes before needing to recharge.

Also, as you'd expect, the on-screen keyboard is very small, which leads to you frequently hitting the wrong keys. The tiny display also makes playing games very difficult.

Worst of all, the Palm phone's modest build isn't matched by its price. In the UK, it's exclusive to Vodafone and either costs £350 with a £10 pay-as-you-go SIM or a whopping £31 a month on a 24-month contract, which means you'll end up paying £744 in total. It may be cute and easily pocketable compared to Samsung's phablet monsters, but it's certainly not worth spending that kind of money for the novelty of its teensiness.





## WHAT'S THE RUMOUR

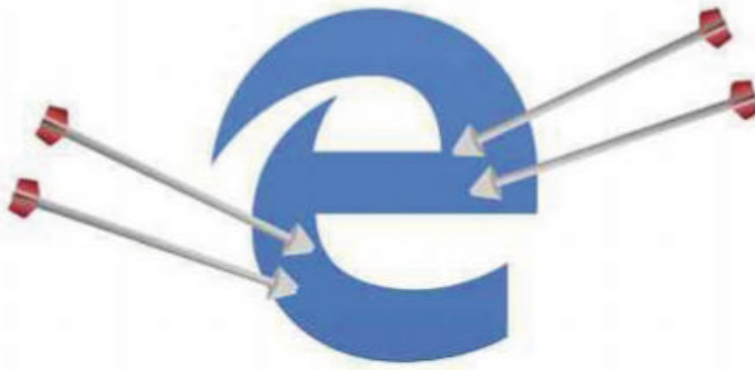
## Did Google sabotage Microsoft Edge?

Google deliberately sabotaged Microsoft's Edge browser, according to a former Microsoft intern. Software engineer Joshua Bakita claims that the search giant's tinkering made his work on Edge difficult by perpetually switching things around on its websites and services.

"I very recently worked on the Edge team," Bakita explains in a post on Hacker News ([bit.ly/hacker466](http://bit.ly/hacker466)), "and one of the reasons we decided to end EdgeHTML [the browser will now use Google's Chromium engine] was because Google kept making changes to its sites that broke other browsers, and we couldn't keep up."

One example Bakita cites relates to YouTube, where, he explains, the platform's engineers "added a hidden empty div" [a web-design element] over YouTube videos, which "causes our hardware acceleration fast-path to bail. Prior to that, our fairly state-of-the-art video acceleration put us well ahead of Chrome on video playback time on battery".

Google subsequently boasted about its own browser's speed and superiority. Bakita contends that: "almost the instant they broke things on YouTube, they started advertising Chrome's dominance over Edge on video-watching battery life".



For all his suggestions of duplicitousness, Bakita doesn't outright accuse Google of being Machiavellian. "Now I'm not sure I'm convinced that YouTube was changed intentionally to slow Edge," he writes, before saying that "many" of his co-workers do believe this to be the case, so much so that they "looked into it personally".

## LIKELIHOOD RATING



**It's easy for Google to maintain its innocence against this accusation. Tweaks made to its sites may well have been organic and entirely unrelated to Edge's performance. There's no bad blood at Microsoft's end, either, as Edge is now set to use the same browser engine as Chrome. Only time will tell if this is a win-win situation for users.**

## WEBOMETER

## WE LIKE...

## ↑ GiffGaff outage helps the homeless

GiffGaff customers donated nearly £400,000 to homeless charity Crisis using the compensation money they received following O2's nationwide network outage. O2, which powers GiffGaff, credited users with 90p each.



## ↑ Chrome stops back-button hijacks

An upcoming version of Chrome will prevent websites from manipulating your browsing history so you can't click the Back button when you visit them. The update will tell Chrome to ignore fake history entries involved in this trick.



## WE DON'T LIKE...

## ↓ Drones ground flights at Gatwick

Hundreds of thousands of passengers were delayed by drones flying over Gatwick airport a few days before Christmas. The airport told airlines to cancel all flights until the runway was safe, leading to several days of disruption.



## ↓ NASA suffers security breach

NASA said a breach of its servers may have resulted in the theft of employee information. The breach is said to have occurred on 23 October when hackers gained access to social-security numbers and other sensitive data.



## What's new on Kickstarter

Our favourite new project on the crowdfunding site

## Redkey USB

[bit.ly/redkey466](http://bit.ly/redkey466) | From £33

Erasing private data from your hard drive before you sell or recycle your old computer can be a laborious process, but Redkey USB makes it amazingly simple. Just plug the key into a USB port on your PC, Mac or laptop and it will use a "special process" to wipe your hard drive "in a way that is much more secure than just deleting or restoring default settings". This is actually the second version of Redkey and adds several useful new features including remote updates, more powerful erasure methods and the ability to save a 'wipe report'. The team hopes to raise £6,435 by 1 February.





# Stay Safe Online

News about the latest threats and advice from security experts

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

### Web users still choosing weak passwords

The weakest link in cybersecurity is still humans, it would seem: the annual list of



100 worst passwords has highlighted just how complacent some web users are about their logins. Compiled by software company SplashData, the list is based on five million leaked passwords from various data sources around the internet.

Predictably, the worst offender for the fifth year running, appearing the most on leaked datasets, was '123456'. 'Password' came in second, with variations of it such as 'paswOrd' and 'password1' also making the top 30, and 'football' coming in at 16.

A new entry for the year was

'donald', which has become so popular that it's the 23rd most frequently used password on the list. This was one of 11 new entries to make the top 25, suggesting that web users are ignoring security experts' advice to make passwords unique, about eight to 10 characters long and a mix of numbers and lower- and upper-case letters.

[bit.ly/passwords466](http://bit.ly/passwords466)

### Brexit could lead to rise in phishing attacks

Companies in both the UK and wider Europe have been warned to expect a sharp spike in phishing attacks once the political uncertainty around Brexit is resolved, with analysts already spotting a rise in malicious activity.

The outcome of negotiations should be known by March 2019, by which point organisations will face an increase in Brexit-themed 'spear phishing' campaigns and political disinformation, according to threat intelligence firm

EclecticIQ.

"Cybercriminals could easily exploit Brexit in large-scale phishing campaigns," the researchers said.

"A campaign targeting businesses could see cybercriminals sending out documents that are made to look like government advice on dealing with Brexit [but] which, in fact, download malware. Cybercriminals regularly use similar tactics by spoofing government organisations such as HMRC in order to spread malware or steal personal information."

Researchers also found evidence of recent Russian-linked ATP28 (Fancy Bear) activity, suggesting the hacker group will launch malware attacks against political targets across Europe once the confusion has settled.

[bit.ly/brexit466](http://bit.ly/brexit466)



## Security Helpdesk | Your questions answered by security specialists

**THIS ISSUE'S EXPERT:**  
**David Emm, Principal Security Researcher at Kaspersky Lab**  
([www.kaspersky.co.uk](http://www.kaspersky.co.uk))



**Q** Are people savvier about online privacy and security than they used to be?

Paul Stokes, Twitter

**A** Not really, no. According to our research, one in five web users (20%) do not password-protect their

Wi-Fi, 31% have never updated the security options on their routers and nearly a third (30%) do not protect their devices with security software. It seems that consumers have turned a blind eye to how far sensitive details can travel and the extent of the information that companies and websites hold about them. In other words, consumers have lost control of their personal data, leaving them vulnerable to cyber-attacks – and mostly unaware of the risks they face.

Even data that many people would consider innocuous is routinely stolen and sold on the dark web. For example, stolen medical

records, which sold for between £70 and £100 each in 2016, have now dropped in price simply because there are so many in circulation.

These days, someone's complete digital life can be sold – and bought – for less

than £50. And the impact of this data harvesting could be catastrophic to an individual: in stealing sensitive data, cybercriminals can cause victims to lose money; be chased for a debt that somebody else has run up or

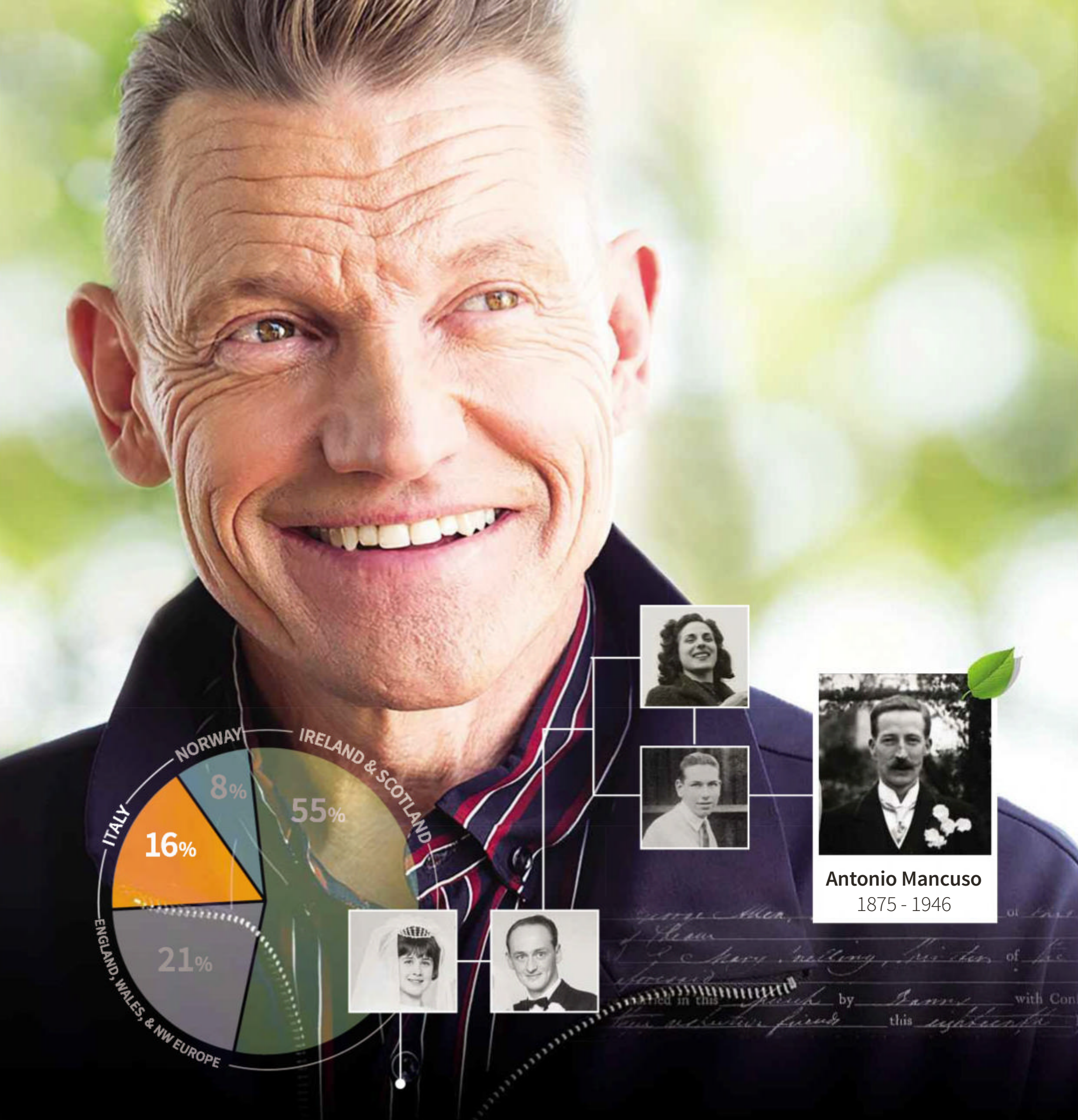
even be accused of a crime.

The money made from information sold on the dark web is used to fund all sorts of crime – from buying drugs or guns to financing platforms that

**“ Even data that people consider innocuous is routinely stolen and sold on the dark web ”**

spread child-abuse content. While web users may harbour a growing concern about their data being compromised, they are often unaware of how it could be used if it falls into the wrong hands.





# Discover your family story

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

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



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



# ★ Best New Websites

## Site of the Fortnight

SECURITY

RELAUNCH

### Vodafone Digital Parenting

[bit.ly/voda466](http://bit.ly/voda466)

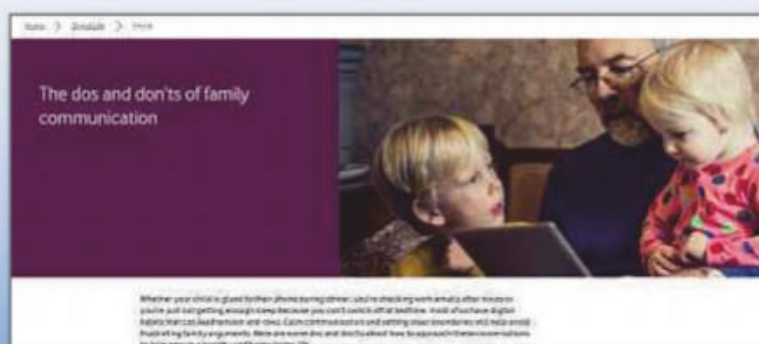
The internet is intimidating enough for adults, let alone kids, so we're pleased to see Vodafone helping parents keep their children safe in the digital age. For several years, the telecom titan's *Digital Parenting* magazine has highlighted potential dangers on the web. Originally found at [vodafonedigitalparenting.com](http://vodafonedigitalparenting.com), the new, streamlined hub is a goldmine of tips for you and your family, from how to help kids spot fake news to managing screen time. For a fun flavour of the updated site, visit [bit.ly/goldilocks466](http://bit.ly/goldilocks466) for a modern reimagining of the classic fairytale.

Our rating



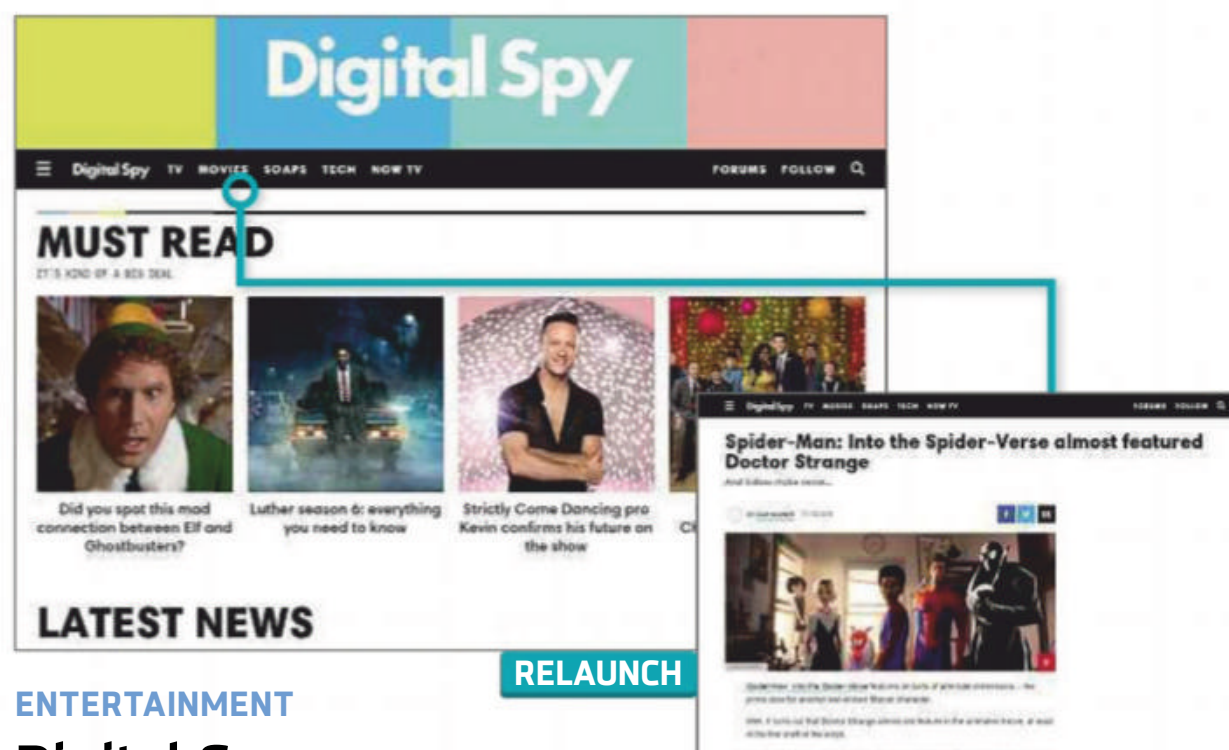
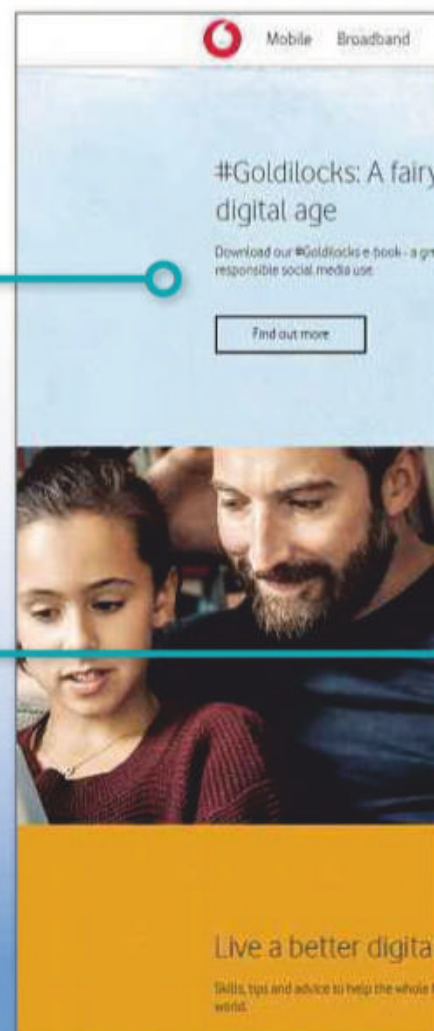
#### ONCE UPON A TIME

Author Jeanne Willis and *Horrible Histories* illustrator Tony Ross have joined forces to teach kids how to be responsible online



#### BROWSE BETTER

It's not all doom and gloom! Discover what actions to take for a healthier online lifestyle



ENTERTAINMENT

### Digital Spy

[www.digitalspy.com](http://www.digitalspy.com)

Digital Spy has been racking up the hits for almost 20 years and its new, distraction-free design makes it even easier to get the hottest takes from the showbiz world. The site caters for telly addicts and movie buffs, serving up a diet of accessible news and reviews that, being a UK site, is less glossy (and gossipy) than US counterparts. There's a major focus on big names like *Doctor Who* and *Star Wars*, but you'll also find light-hearted consumer-technology news and the ever-popular Digital Spy forums. Just be warned that clicking the Now TV link in the navigation bar whisks you to a portal where every slice of content is sponsored by Sky's internet TV service.

Our rating



RELAUNCH

HEALTH & FITNESS

### Virgin Active

[www.virginactive.co.uk](http://www.virginactive.co.uk)

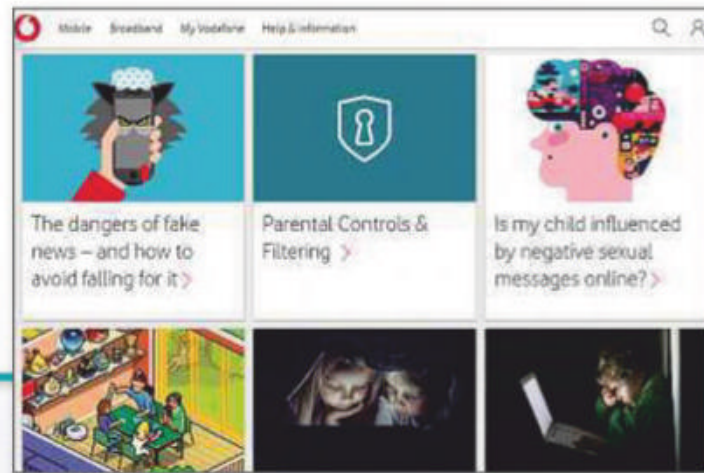
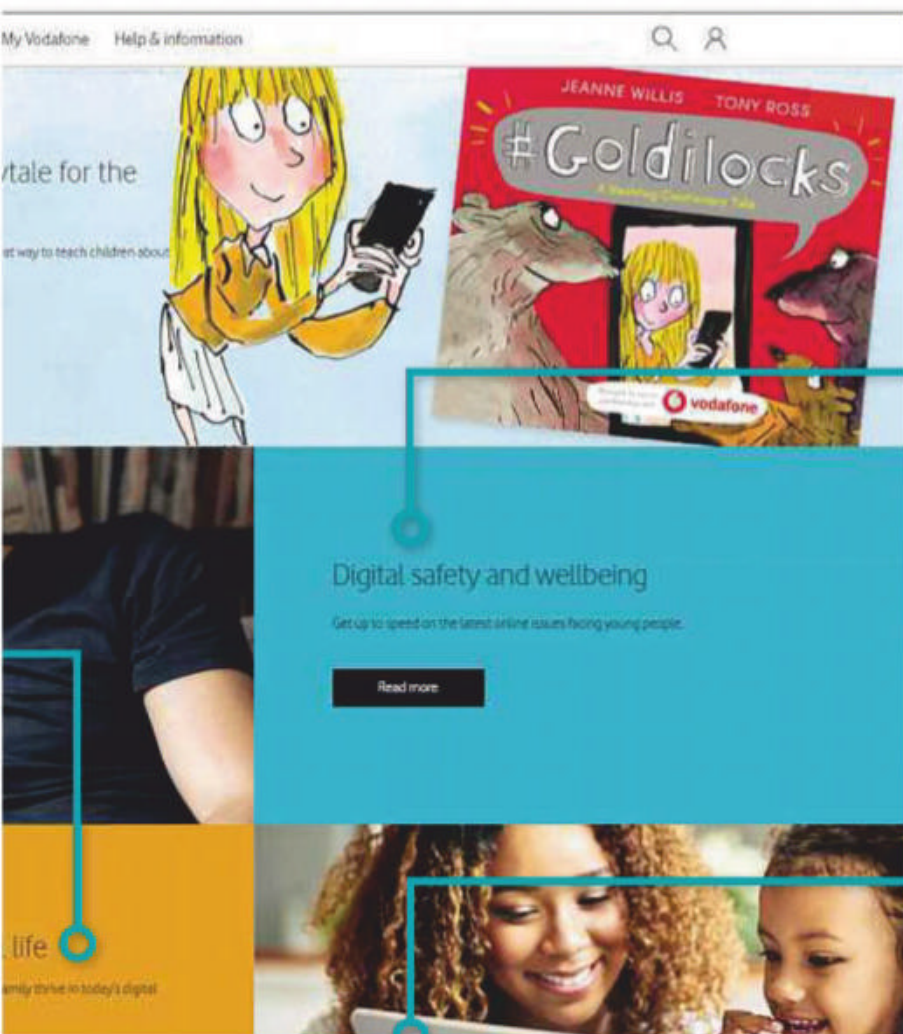
After gorging on mince pies and Quality Street over Christmas, the new Virgin Active website may be your next port of call. It's a simple redesign – as toned and energetic as a gym-bunny – with a search bar dominating the site, as videos of active folk dash across the background. Just enter your location to discover your nearest Virgin Active and everything it offers (did someone say 'spa'?). Clicking the Active News link, however, is literally a pointless exercise: it's an About Us page with a few ads for services – you'll need to provide your email address for the 'Workout Wednesday' tips.

Our rating



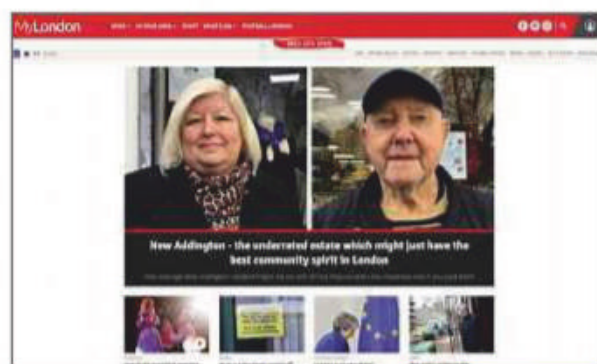


We review this fortnight's best new and relaunched websites and rate them for content, design and features



**IN THE KNOW**  
Experts offer top tips on a broad range of online activities, whether you're looking to stay safe or prevent cyberbullying

**DON'T MISS OUT**  
Scrolling down to the archive, you can download every previous issue of *Digital Parenting* magazine in PDF format



RELAUNCH

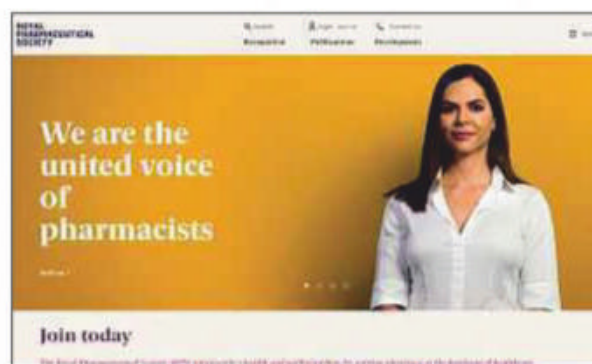
NEWS

**My London**

[www.mylondon.news](http://www.mylondon.news)

Mirror publisher Reach has merged local online titles Get West London and the Croydon Advertiser to create a city-wide news site: My London (presumably, that's your London, too). Given that's a broad remit, you can, thankfully, narrow down your search to specific areas of the capital, or by topics including Comedy, Sports and Events. Peppered among general news stories are magazine-style human-interest pieces including the 'secret' Star Wars store ([bit.ly/jedi466](http://bit.ly/jedi466)) and hidden pauper's graveyard ([bit.ly/hidden466](http://bit.ly/hidden466)). However, not everyone will agree with its tagline: 'Best. City. Ever'.

Our rating



RELAUNCH

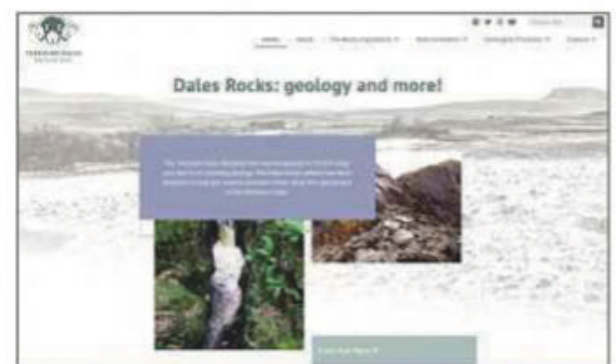
HEALTH

**Royal Pharmaceutical Society**

[www.rpharms.com](http://www.rpharms.com)

The Royal Pharmaceutical Society has a fine 178-year history of representing pharmacy professionals, and its new website dispenses (haha!) with the sterile whites and blues of its predecessor in favour of a rainbow carousel and personal photographs. Explore the most respected journals and find out the latest causes supported by the RPS. Elsewhere, the About Us page is a well-stocked treasure trove of information, including details about the society's museum. If this is a profession you're looking to get into, you'll find heaps of advice.

Our rating



NEW

GEOGRAPHY

**Dales Rocks**

[dalesrocks.org.uk](http://dalesrocks.org.uk)

The Yorkshire Dales is one of the UK's best-loved locations, and the Dales Rocks website unearths its stunning stories and sets them in stone. There's an emphasis on geology, but the text is written by a schoolteacher so the language is clear and easy to understand – even if you don't know your cyclothem from your Late Carboniferous. Dig around to uncover the history of rock formations and the finest walks across this National Park. The interactive map is worth a wander, too, charting areas of geological interest, with links to the relevant information on the site.

Our rating





# BACK ISSUES DISC 2017



**2017 Back Issues Disc**

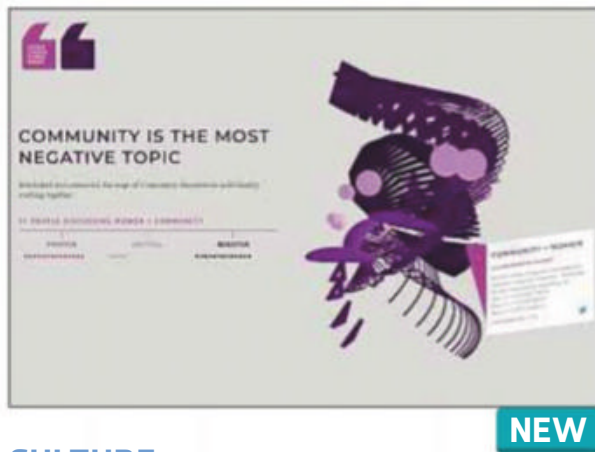
Our **2017 Back Issues Disc** containing all 26 issues from last year is now on sale from Amazon

For more information, visit [bit.ly/wudisc17](http://bit.ly/wudisc17) or search for 'webuser disc' on Amazon

**You can still buy our 2016 Back Issues Disc from [bit.ly/wudisc16](http://bit.ly/wudisc16)**







NEW

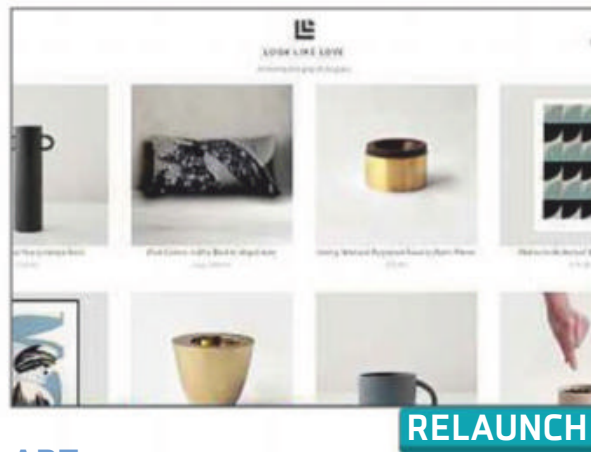
## CULTURE

## The Pulse

[www.seethepulse.com](http://www.seethepulse.com)

The Pulse, from the Women Leaders Global Forum, asks you to ‘join the conversation’. Looking like a weird strand of DNA, this interactive site tracks over 10,000 real-time Twitter chats every day, focusing on empowering women in leadership roles. Drag, zoom and rotate your way through each element of this surreal design to read what people are *really* talking about when it comes to women’s impact on topics such as community and power. A pop-up box displays other Twitter users’ reactions to the tweet, but we found it difficult to actually join the conversation; there’s no way to tweet those featured on the site.

Our rating



RELAUNCH

## ART

## Look Like Love

[www.looklikelove.co.uk](http://www.looklikelove.co.uk)

Giving young British designers a leg-up, Look Like Love sells unique products from some of the country’s top emerging artists and graduates. As you’d expect, it’s an attractive website and as minimalist as a Scandinavian bedroom. If any of the limited editions catch your eye, draw your mouse over the image for a close-up look, then add to cart: checkout is straightforward and secure. Every hand-crafted piece – you’ll find cushions, ceramics, and homewares – entices conversation, although the prints might be a little avant-garde for those with more traditional tastes. We may not know art, but we know what we like.

Our rating



RELAUNCH

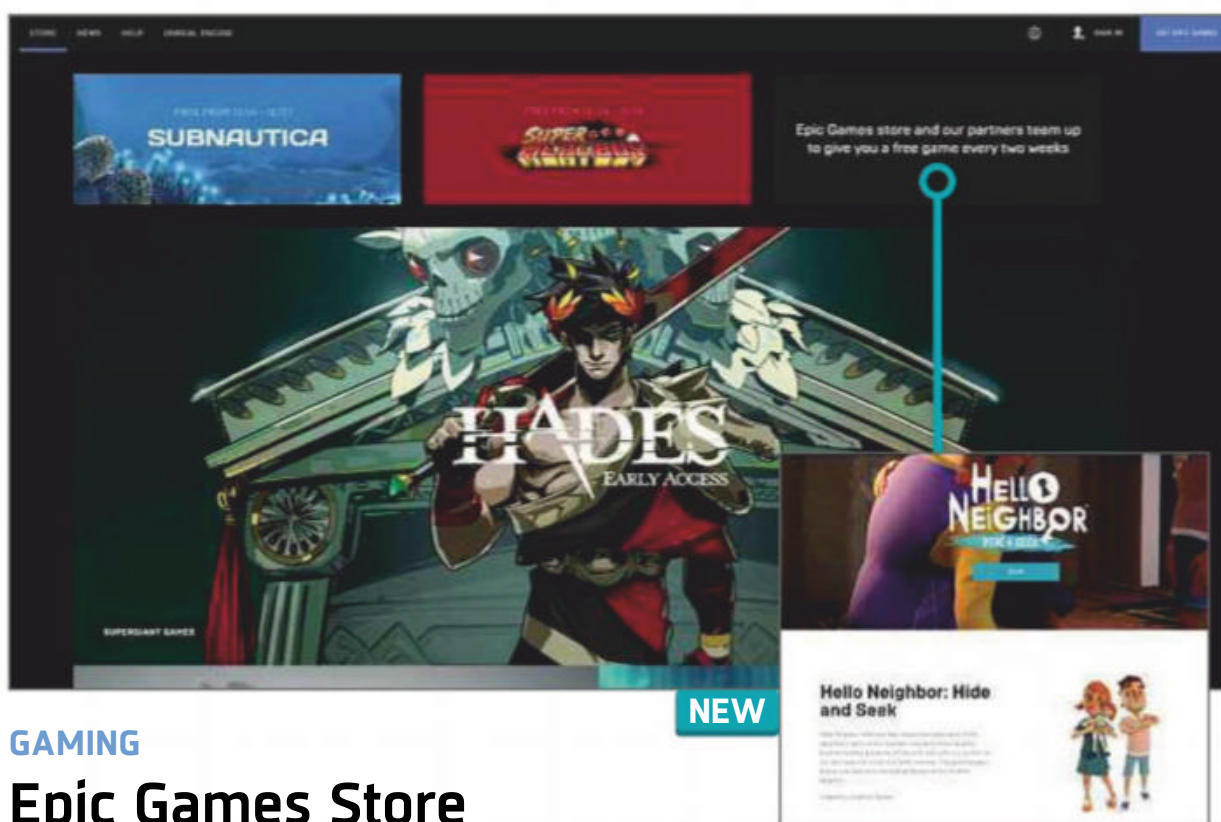
## CHARITY

## Pyjama Fairies

[pyjamafairies.org](http://pyjamafairies.org)

Fairies do exist – and they craft pyjamas and surgical gowns for poorly children undergoing surgery. These colourful garments are designed to help make unnerving stays in hospital just that little bit more bearable. The website isn’t the slickest of the charities we’ve covered recently – website navigation is almost solely confined to drop-down menus, while the home screen is dedicated to showcasing the good work the charity does for children. Donations and a shop are housed on the site, as well as an ‘Order Now’ page where parents can get the magical jim-jams for their poorly youngsters before visiting hospital.

Our rating



NEW

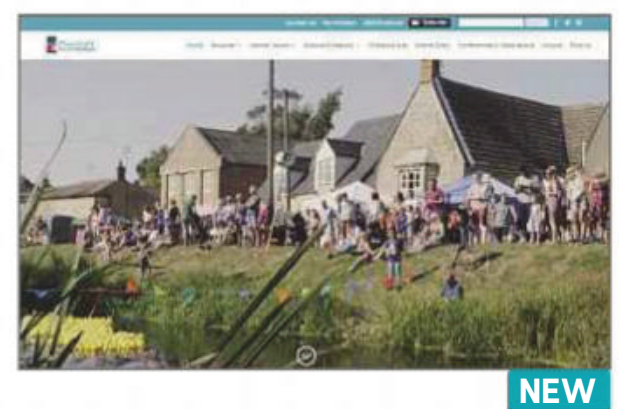
## GAMING

## Epic Games Store

[www.epicgames.com/store](http://www.epicgames.com/store)

Having conquered the world with its juggernaut battle royale shooter, Fortnite, Epic Games is gunning for the Steam Store. Hi-res images and videos do a dandy job of showcasing the latest games – it’s worth exploring each title to see key details like minimum PC specs and the game’s social-media accounts. Checkout is quick using credit card, PayPal or Amazon Payments. Future plans are promising – including two free games a month and better revenue shares for developers – but it feels rushed: the storefront is as barren as an office on New Year’s Eve, and there isn’t even a search bar. If you’re aiming to abandon your Steam library, you may have to wait a while yet.

Our rating



NEW

## TOURISM

## Discover South Kesteven

[www.discoverouthkesteven.com](http://www.discoverouthkesteven.com)

Unless you happen to live in the area, you’ve probably never heard of South Kesteven in Lincolnshire. This website seeks to change that with a flood of helpful tourist information: the usual accommodation and food & drinks pages are here, but so are details on local market towns, outdoor activities, and even parks and playgrounds. Check in with the incredibly useful events calendar, then load up the car – and your itinerary – for a visit. The site can be a tad slow to load, but maybe that’s just down to the relaxed pace of life in this beautiful corner of the world.

Our rating





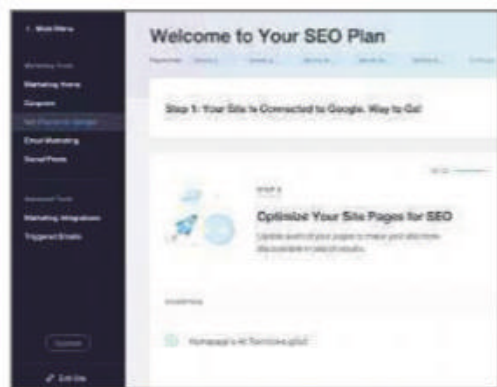
# Build a Better Site

Specialist tips, top tools and practical help

## Top Tips of the Fortnight

### Grow your Wix website

If you're serious about taking your Wix website ([www.wix.com](http://www.wix.com)) to the next level, the site builder has developed a suite of 20 extra tools designed to help you make the leap. The collection is called Ascend and costs from £10 per



month, on top of your regular paid-for Wix subscription. This buys you a broad collection of tools that are designed to help you attract visitors to your site and interact with them, both on the site and through social media.

### Learn professional web-building for free

App Academy ([open.appacademy.io](http://open.appacademy.io)) is offering its incredibly comprehensive web-application online learning course for free. The Full Stack course (Full Stack means you'll learn about both site building with HTML, CSS and JavaScript, as well as back-end programming such as PHP and Ruby on Rails) has 1,500 hours of material to learn from, including videos, projects and reading material, and is exactly the same as the full-time 24-week course that costs hundreds of dollars.

### Deal of the Fortnight

Bluehost ([www.bluehost.com](http://www.bluehost.com)) is offering new customers a hosting package with a secure domain and 1-click WordPress option for \$3.54 (around £2.80) per month, down from \$9.60 (around £7.59)

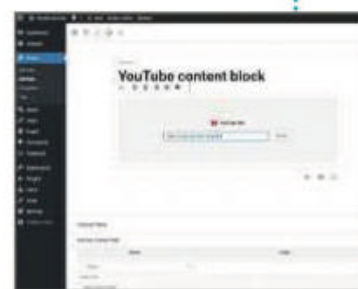
## Web-building Helpdesk

**Q** WordPress has just updated to Version 5.0. The YouTube plug-ins I used before embedded videos easily, but don't appear now when I create a post. The new block codes seem to take ages to embed video. Will my old YouTube plugins become visible again?

Adrian Bonnington, via Facebook

**A** We found the built-in YouTube block very fast and effective, so you shouldn't need plug-ins. Add a new block by hovering your mouse over a space below any current content and click the '+' button. Scroll down the menu to Embeds, click the down arrow and select YouTube. Copy the short youtu.be code from YouTube's Share button and paste it into the box, then click the Embed button.

Andy Shaw, Technical and Reviews Editor



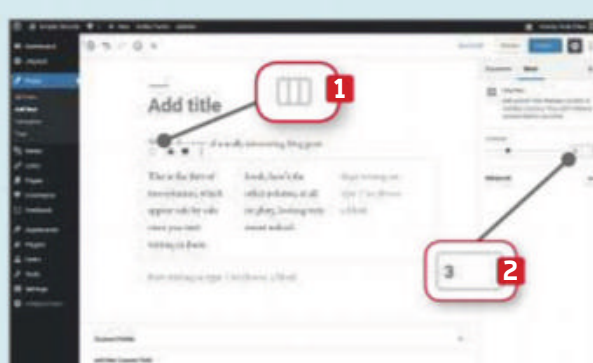
**MINI WORKSHOP** | Add more content blocks with Gutenberg in WordPress 5.0  
WordPress 5.0: [wordpress.org](http://wordpress.org) | 10 mins | Self-hosted WordPress website

Following on from last issue's Workshop, we show you how to configure WordPress 5.0's trickier content blocks

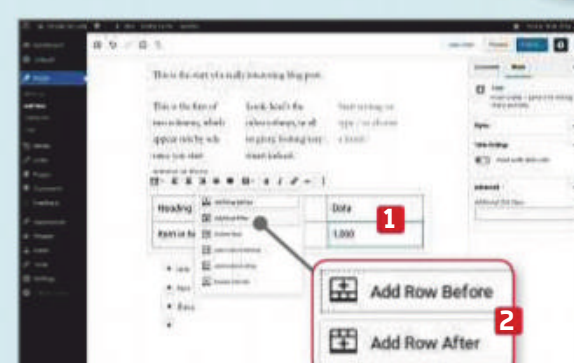
**NEXT ISSUE**  
More Gutenberg!  
On sale 23 January



**1** When you finish a block by pressing Enter at the end of a paragraph, a new block is created that's ready to have text written into it. Alternatively, create a block by clicking the + button **1** and choosing its type **2** - there are several to choose from. You can change the type of an existing block by clicking its 'Change block type' button. **3**



**2** Most of the blocks are straightforward to use but a few are unnecessarily complicated. If you want to split a block horizontally into equal sized columns, choose the Columns block. **1** By default, it splits into two and you can click between them to add content. To add more columns to the same block, increase the number in the sidebar. **2**



**3** Although conceptually similar, adding tables requires a different process. Choose the block from the list and you can set the number of columns and rows you want to add. You can then start filling them in. **1** If you want to add more rows or columns to the table, click Edit Table and choose what to add where. **2**



# Dedicated hardware: unleashed in the cloud

Need flexibility, supreme power and competitive prices? Allow Fasthosts to introduce Dedicated Servers featuring Intel Xeon Scalable processors

**W**ithout servers, the internet as we know it couldn't exist. But these machines have a lot to live up to, with expectations of maximum availability, minimum downtime and near-flawless performance. Thankfully, the latest generation of server hardware is now being combined with innovations in cloud infrastructure to provide exceptional reliability, while also enabling highly flexible approaches to server hosting in a wide variety of scenarios.

Running 24/7, dealing with large numbers of simultaneous users, and routinely handling sensitive data, servers face far greater demands than desktop machines. And when these pressures prove too much for consumer-grade technology, high availability can only be ensured by enterprise-level hardware.

## More cores, faster storage

Specialised processors, such as Intel's Xeon family, offer more cores and bigger cache sizes than desktop CPUs, as well as support for very large quotas of ECC RAM. With models now featuring the latest generation of Intel Xeon Scalable processors, Fasthosts Dedicated Servers deliver the performance and reliability demanded by mission-critical applications. The newest storage technologies also bring major advantages to server use cases, with NVMe drives now accessing data up to six times faster than

## Move demanding applications to the cloud with Fasthosts Dedicated Servers

standard SSDs. In database-driven applications such as online shops with content-rich product details, the NVMe storage on Fasthosts Dedicated Servers helps to ensure a smooth and responsive customer experience.

Obviously, hardware is a vital factor in server performance, but it's not the whole story. With individual servers often working as nodes in a cluster, connectivity and the underlying platform make all the difference. Fasthosts allows single-tenant servers to be combined with virtual machines to create hybrid setups – 'virtual data centres' that provide custom configurations for specialised applications. An e-commerce platform, for example, could use load-balanced VMs to efficiently manage website traffic, and dedicated hardware to

securely handle customer details. Fasthosts servers also benefit from the performance and security of UK data centres, and with unlimited bandwidth, there are never any worries about exceeding data caps.

These innovations clearly offer advantages – but do they make server hosting any more cost-effective? The good news is that the flexibility of the Fasthosts platform also extends to pricing. Dedicated Servers can be provisioned in just eight minutes and shut down at any time, and costs are tracked on a per-hour basis. Again, this flexibility enables custom configurations in different use cases: if demand is seasonal, VMs can handle normal traffic levels, and be augmented with dedicated hardware when heavy processing is required at busier times of year. For intensive tasks like image rendering and big-data processing, too, the option to run dedicated hardware in short bursts is highly beneficial.

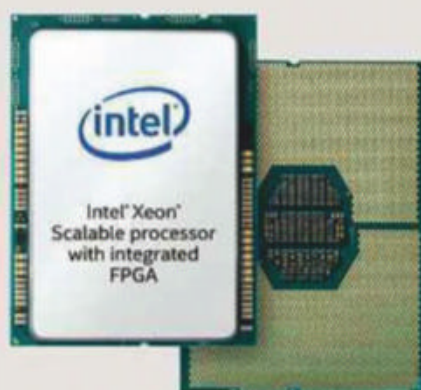
Server applications can be extremely demanding, both on the machines and the wider infrastructure. But by taking cutting-edge hardware and combining it with innovative cloud-based technologies, the Fasthosts platform enables Dedicated Servers to work harder – and smarter. For server customers, the result is a better experience for end users and a more successful online presence.



## Highlights of the Fasthosts platform

- Dedicated Servers provisioned in just eight minutes
- Flexible, usage-based billing and unlimited traffic
- The latest hardware including Intel Xeon Scalable processors
- UK-based data centres and 24/7 UK support

*Fasthosts Dedicated Servers feature Intel Xeon Scalable processors and fast NVMe SSDs*







# What To Watch Online

## Pick of the fortnight

amazon  
prime video



### Gear up for Season 3 of *The Grand Tour*

From 18 January

The bad news for worshippers of the holy petrolhead trinity is that Clarkson, Hammond and May only signed up for three seasons of *The Grand Tour*, and this is the third.

Thankfully, the show has been such a huge success for Prime Video that Amazon has thrown a fresh wad of multi-millions at the team, who are now filming a fourth series of globetrotting specials. We can't see this beautiful relationship screeching to a halt any time soon, unless Clarkson punches a producer.

*The Grand Tour* team isn't giving much away about Season 3 but judging by the trailer ([bit.ly/tour466](http://bit.ly/tour466)), which opens with Richard Hammond driving a Jeep across a rickety footbridge over a Colombian canyon, you can expect more of the same far-flung motoring hijinks interspersed with links from a tent in the Cotswolds. Keep an eye on the team's Twitter account for episode details: [bit.ly/twittour466](http://bit.ly/twittour466).

All 12 episodes of Season 3 will be available from 18 January on Amazon Prime Video ([bit.ly/grandtour466](http://bit.ly/grandtour466)). As before, all episodes stream in 4K (Ultra HD).

### **N** Keep mum with Gillian Anderson in *Sex Education*

From 11 January

Netflix's new coming-of-age-awkwardly comedy-drama stars Gillian Anderson (*The X-Files*) as a sex therapist whose misfit teenage son (Brit actor Asa Butterfield from *Hugo*) uses his "specialist" knowledge to score some cool points at school. After teaming up with sassy bad-girl Maeve to form an underground sex-therapy clinic, he discovers a few issues of his own.

When the trailer finally appears, you'll be able to watch it for free on the



show's Netflix page: [bit.ly/sexed466](http://bit.ly/sexed466). Eight episodes arrive on 11 January.

### **now** Dodge vampires and mad scientists in *The Passage*

From 15 January

Secret US government scientists are testing a virus that could cure all disease. But, oops, the Death Row inmates they were using as guinea pigs have turned into vampires – so the bonkers boffins infect a six-year-old girl instead. FBI Agent Brad Wolgast (Mark-Paul Gosselaar from *NYPD Blue*) takes her on the run, and post-apocalyptic chaos ensues.

Fox's 10-part thriller is based on a 2,592-page bestselling trilogy, so there's a lot of plot to fit in. Even the trailer



([bit.ly/passage466](http://bit.ly/passage466)) feels over-stuffed, so we can see why the makers shelved plans for a movie in favour of this mini-series. *The Passage* airs weekly on Fox UK, which you can stream from Now TV (£7.99 a month after a 14-day free trial: [bit.ly/nowent466](http://bit.ly/nowent466)).

### **N** Find out what Batman's Robin did next in *Titans*

From 11 January

With *Aquaman* making a splash at the box office, another DC Comics adaptation probably doesn't sound like such a bad idea after all. This live-action take on the *Teen Titans* stories sees





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



Batman's former protégé Robin (Brenton Thwaites) gather a group of teen heroes to fight crime and wrestle their inner demons.

The 13-episode season received great reviews in the US when it streamed on the DC Universe site

([www.dcuuniverse.com](http://www.dcuuniverse.com)), and a second season is already in production. Netflix has screening rights for the show outside the US and has released a new trailer and teaser that you can watch for free at [bit.ly/titans466](http://bit.ly/titans466).

### Be a sofa sport-tourist with *A League of Their Own Roadtrip*

From 10 January

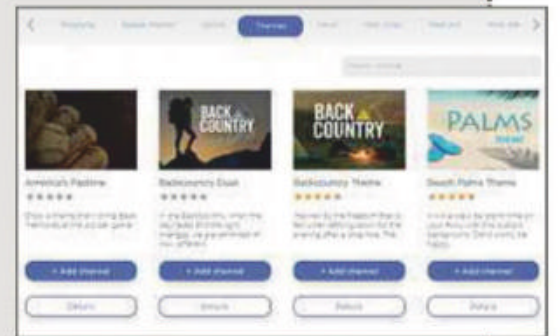
You may or may not be sorry to hear that usual host James Corden is absent from the four new episodes of *Roadtrip*, a spin-off from Sky One's hit sport comedy show *A League of Their Own*. Team captains Andrew 'Freddie' Flintoff and Jamie Redknapp whisk their guests



## Customise your Roku screen for free

Roku's streaming TV stick is even more of a bargain now that all its screen-customising themes are completely free. Themes have always been among the many things that made Roku's £79 Streaming Stick Plus with 4K ([bit.ly/roakuplus466](http://bit.ly/roakuplus466)) and £29 Streaming Stick Express ([bit.ly/rokuex466](http://bit.ly/rokuex466)) such good buys. You can choose from dozens of styles, then add one to your Roku home screen with a click. The catch was that you had to pay between 99p and £2.99 for many of them. That's now changed, because according to a Roku Blog post ([bit.ly/themes466](http://bit.ly/themes466)), they're all now gratis.

The themes have somewhat US-centric names ('Fall Landscape', 'Super Mom', 'America's Pastime' and so on), but the designs are attractive and varied. We particularly like the 'Math' theme, despite its missing 's' ([bit.ly/math466](http://bit.ly/math466)). Browse the collection at [bit.ly/rokuthemes466](http://bit.ly/rokuthemes466).



– including boxer Anthony Joshua and comedian Alan Carr – across Europe to tackle the continent's best and daftest sports. Stream it live or on-demand from Now TV ([bit.ly/roadtrip466](http://bit.ly/roadtrip466)).

Meanwhile, former *Roadtrip* regular Jack Whitehall has launched a football show on YouTube – *Jack Whitehall: Training Days* is free to watch at [bit.ly/training466](http://bit.ly/training466).

madness of human relationships. Think *Friends* meets *Arrested Development*, with songs.

You can watch it from start to finish when the final 10 episodes, billed as Season 4b, arrive on Netflix on 12 January ([bit.ly/crazyex466](http://bit.ly/crazyex466)). Watch the latest trailer at [bit.ly/crazytrail466](http://bit.ly/crazytrail466).



### Get closure on *Crazy Ex-Girlfriend*

From 12 January

A musical sitcom about a depressed woman who abandons her career to stalk a bloke she met as a teenager? *Crazy Ex-Girlfriend* sounds awful, but comedian Rachel Bloom's hit show is actually a sassy take on the

In case you missed it...

Fed up with fluffy festive fare? Then head to Now TV for critically acclaimed mini-series *Escape At Dannemora*, which dramatises a 2015



prison escape and subsequent manhunt. Oscar-winners Patricia Arquette and Benicio Del

Toro star alongside the brilliant Paul Dano (*There Will Be Blood*), while Ben Stiller directs. Episodes arrive weekly on Mondays, courtesy of Sky Atlantic.

If, on the other hand, you want some British national treasures to warm your January cockles, Now TV can help you with that, too. Sky One's adaptation of Sue Townsend's *The Queen & I*, starring David Walliams, Samantha Bond

and Johnny Vegas, is available to stream now, as are the three new episodes of Dawn French's Cornish drama *Delicious* ([bit.ly/delicious466](http://bit.ly/delicious466)). Season 2 of *Living the Dream*, with Philip Glenister and Lesley Sharp as Florida expats, has just started on Sky One; new episodes arrive on Now TV every Tuesday ([bit.ly/dream466](http://bit.ly/dream466)).

All these shows are included in a Now TV Entertainment Pass.





# Group Test

We test and compare the latest products

## Android phones under £250

You don't have to spend a fortune to get a great smartphone. We test seven impressive and affordable devices

If you refuse to take out a second mortgage to blow on one of the latest flagship smartphones, don't despair: you can still get an excellent device for a modest outlay of less than £250.

The phones we've tested here have great screens, powerful batteries and brilliant cameras – just not necessarily all three. If, instead of expecting the best of everything in one device, you prioritise the features that matter most, you can pick up a real bargain.

### HOW WE TESTED

We put all seven smartphones through a series of demanding tests. The screens were analysed with a colorimeter to measure colour, contrast and brightness; while performance was tested with gaming benchmark

GFXBench and core performance benchmark Geekbench. Finally, we tested how long the battery lasted on each fully charged device by playing a standard looping video until the power ran out.

**Motorola Moto G6 | £199.99 | Buy from Amazon: [bit.ly/motog466](https://bit.ly/motog466)**

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

Motorola has an excellent record of striking the right balance between performance, looks and affordability. The Moto G6 maintains this commendable trend, and its sophisticated curves and polished glass make it barely distinguishable from vastly more expensive models. Reduced from its original price, it now costs around £199 – not ultra-cheap but in a world where the most expensive models exceed £1,000, not to be sniffed at. And since the phone runs Android 8.0 (Oreo), it can do pretty much everything that its pricier counterparts can.

The large 5.7in display has a tall, narrow, 18:9 ratio with a resolution of 1,080 x 2,160 pixels. The screen is rich and vibrant, but it's not the brightest (peaking at 408cd/m<sup>2</sup>), nor the most colour accurate (reproducing a relatively low 86.3% of the sRGB colour palette). While the phone's 1.8GHz octa-core Snapdragon 450 processor may not be the fastest smartphone chip around, it's enough to make the Moto G6

feel responsive for everyday tasks, with benchmark scores that match other phones in this price bracket. Also, Motorola's version of Android is cleaner than most and

doesn't come overburdened with unnecessary extra apps and user interface elements, which gives it some extra zip.

The most impressive thing about the G6 is its camera. The rear snapper is made up of two cameras working in unison, the second used for depth perception to create top-quality portrait images. It takes brilliant outdoor photos, too, and although it doesn't perform as well in low light, its results are still impressive.

The main disappointment, however, is its battery life. The 3,000mAh battery lasted only 10 hours and 45 minutes in our test, which should still get you through a full day, but was bettered by the other award winners in this group.



WebUser  
GOLD  
AWARD

### VERDICT ★★★★★

If you're on a strict budget and you're after a phone that looks good, feels natural to use and takes great photographs, there's none better than the Motorola Moto G6. Although it's the second-most expensive phone in this test, it offers superb value for money. Sure, it can't match every aspect of vastly more expensive flagship phones that are way beyond the budget of this review, but the compromises made are in all the right places, with fussy extras trimmed while core features remain intact.



## Motorola Moto E5 Plus | **£154.44** | Buy from Amazon: [bit.ly/motoeplus466](http://bit.ly/motoeplus466)

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



Our next-favourite sub-£250 smartphone is another Motorola, though this one is a bit cheaper and, therefore, less of an all-rounder than the G6. However, if battery life is your priority, look no further than the E5 Plus. With its huge 5,000mAh battery, this phone lasted 24 hours and 2 minutes in our tests, which is longer than any other currently available phone – at any price – that we’ve tested.

The camera is also superb. There are no fancy options involving dual lenses, but it takes wonderful photos that are vastly superior to any other model that’s this affordable.

The E5 Plus’s plastic case shows where some cost has been cut, but it still feels surprisingly classy and houses an impressive 720 x 1,440 pixel screen, along with a microSD card slot that lets you expand the phone’s storage up to 256GB.

### VERDICT

★★★★★

Although this is more than £100 under our budget, the Motorola E5 Plus has everything in all the right places. Best of all is its epic battery life, which is better than any other phone you can buy. It also takes cracking photos.

## Samsung Galaxy J5 (2017) | **£129.50** | Buy from Amazon: [bit.ly/samj466](http://bit.ly/samj466)

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



It was a tough call not to give Motorola a clean sweep of all three top awards in this Group Test, but Samsung’s J5 has dropped in price significantly since its £250 launch last year, so it’s an absolute bargain.

It’s the J5’s display that elevates it from the rest of the pack. It has an AMOLED screen, with an sRGB coverage of 98.5%. Although it doesn’t get as bright as some of its rivals, maxing out at 297cd/m², its contrast is wonderful and displays velvety deep inky blacks.

Our battery tests ran for 18 hours and 26 minutes on the J5, which is impressive, even if it’s hours less than the Moto E5 Plus. Its 1.6GHz octa-core processor is better than the ones in the Motorola models, though, which gave the J5 better scores in our performance benchmark tests and gives Android a smoother, slicker feel.

### VERDICT

★★★★★

It may not have the battery life of the E5 Plus or the general well-roundedness of the G6, but if your main requirements from a phone are a slick interface and a luxurious screen, then the Samsung Galaxy J5 is an excellent choice.

## Motorola Moto E5 | **£119.99** | Buy from Amazon: [bit.ly/motoe466](http://bit.ly/motoe466)

The Moto E5 doesn’t have the mighty battery life of the E5 Plus (though it still lasted a solid 19 hours and 39 minutes in our tests) but it’s otherwise just as good. Its solid plastic case feels comfortable to hold, the generous 5.7in 18:9 ratio display has no major flaws and its rear 13-megapixels camera is brilliant. Storage and RAM are a bit mean at 16GB and 2GB, but there’s a microSD slot to expand this. However, performance from the 1.4GHz quad-core processor is a touch sluggish, which is why the Samsung J5 beat it to third place.



### OVERALL

★★★★★

## Honor 8X | **£209** | Buy from Amazon: [bit.ly/hono466](http://bit.ly/hono466)

The Honor 8X is the biggest, fastest phone you’ll get for less than £250, with a huge 6.5in screen that’s surprisingly easy to hold thanks to its thin 19.5:9 aspect ratio and narrow bezels. It has a sharp resolution of 1,080 x 2,340 pixels and reasonably accurate colours (91.6% of sRGB), though it’s not particularly bright. In our benchmark tests, it outperformed every other phone in this Group Test, both in games and processor performance, helped by its 4GB of RAM and 64GB of storage. The camera and battery aren’t great, though.



### OVERALL

★★★★★

## Vodafone Smart N9 | **£95** | Buy from Vodafone: [bit.ly/vsn466](http://bit.ly/vsn466)

The N9’s main attraction is its modern 18:9 ratio screen, which has a decent resolution of 720 x 1,440 pixels and is surprisingly good quality, with sRGB coverage of 90.9%. It feels well made, and has a fingerprint reader and NFC for your convenience. However, the camera is poor and battery life is disappointing (9 hours and 11 minutes in our tests). That’s an acceptable compromise for the price but you get so much more if you stretch your budget to the Moto E5 or beyond.



### OVERALL

★★★★★

## Vodafone Smart N9 Lite | **£59** | Buy from Vodafone: [bit.ly/vsnl466](http://bit.ly/vsnl466)

This is the only phone we’ve tested that runs Google’s Android Go operating system, which is a lightweight version of Android 8.1 designed to help ultra-cheap phones run faster. However, the N9 Lite still feels sluggish, particularly when using apps that aren’t optimised for Go. Its 480 x 960 pixels screen is a generous 5.34in but it’s not colour accurate, displaying only 64.1% of sRGB colours. Battery life was also weakest in our tests, lasting just 8 hours and 50 minutes.



### OVERALL

★★★★★



## Group Test Android phones under £250



	Motorola Moto G6	Motorola Moto E5 Plus	Samsung Galaxy J5 (2017)	Motorola Moto E5	Honor 8X
WEBSITE	<a href="http://www.motorola.co.uk">www.motorola.co.uk</a>	<a href="http://www.motorola.co.uk">www.motorola.co.uk</a>	<a href="http://www.samsung.com">www.samsung.com</a>	<a href="http://www.motorola.co.uk">www.motorola.co.uk</a>	<a href="http://www.hihonor.com">www.hihonor.com</a>
PRICE	£199.99	£154.44	£129.50	£119.99	£209.00
BUY FROM AMAZON	<a href="http://bit.ly/motog466">bit.ly/motog466</a>	<a href="http://bit.ly/motoeplus466">bit.ly/motoeplus466</a>	<a href="http://bit.ly/samj466">bit.ly/samj466</a>	<a href="http://bit.ly/motoe466">bit.ly/motoe466</a>	<a href="http://bit.ly/hono466">bit.ly/hono466</a>
PROCESSOR	Octa-core Qualcomm Snapdragon 450 (8 x 1.8GHz)	Quad-core Qualcomm Snapdragon 425 (4 x 1.4GHz)	Octa-core Samsung Exynos 7870 (8 x 1.6GHz)	Quad-core Qualcomm Snapdragon 425 (4 x 1.4GHz)	Octa-core Kirin 710 (4 x 2.2GHz, 4 x 1.7GHz)
RAM	3GB	2GB	2GB	2GB	4GB
SCREEN SIZE	5.7in	6in	5.2in	5.7in	6.5in
SCREEN RESOLUTION	2,160 x 1,080 pixels	1,440 x 720 pixels	1,280 x 720 pixels	1,440 x 720 pixels	2,340 x 1,080 pixels
SCREEN TYPE	IPS	IPS	OLED	IPS	IPS
FRONT CAMERA	8 megapixels	5 megapixels	13 megapixels	5 megapixels	16 megapixels
REAR CAMERA	12 megapixels	12 megapixels	13 megapixels	13 megapixels	20 megapixels
STORAGE	64GB	16GB	16GB	16GB	64GB
MEMORY-CARD SLOT	✓	✓	✓	✓	✓
WI-FI	802.11n	802.11n	802.11ac	802.11n	802.11ac
OPERATING SYSTEM	Android 8	Android 8	Android 7	Android 8	Android 8.2
BATTERY SIZE	3,000mAh	5,000mAh	3,000mAh	4,000mAh	3,750mAh
DIMENSIONS	154 x 72 x 8.3mm	161 x 75 x 9.4mm	142 x 72 x 7.9mm	154 x 72 x 9mm	160 x 77 x 7.8mm
WEIGHT	167g	197g	146g	174g	175g
WARRANTY	One-year return-to-base	One-year return-to-base	Two-years return-to-base	One-year return-to-base	Two-years return-to-base

### OUR VERDICT

The Motorola Moto G6 scooped our Gold Award from tough competition. It's a fantastic all-round smartphone, available for a very reasonable £200. You can't expect it to compete in every aspect with rival models that cost five times as much, but the G6's compromises are in all the right places, making it extraordinary value for money.

If that's still too expensive, the E5 Plus is a more affordable alternative that actually trumps the G6 for battery life. It also takes great photos, offers superb value for money and wins our Silver Award.

Anyone looking for top performance without sacrificing too much in other areas should look beyond Motorola to the Samsung Galaxy J5, which nabbed our Bronze Award. This smartphone has an exceptional screen and a reasonable battery life, but isn't as good at taking photos as the Motorola models. ■





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# Web User's Best Buys

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## HARDWARE

### BUDGET SMARTPHONE

#### Motorola Moto G6

£199.99 from [bit.ly/motog466](https://bit.ly/motog466)

Tested: Issue 466

A budget phone that looks good, feels natural to use and takes great photos, the Motorola Moto G6 offers powerful features found in handsets that cost twice as much.

NEW!



#### KEY SPECS

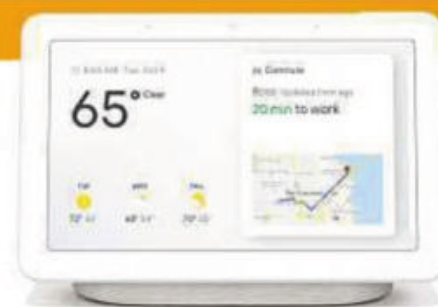
Octa-core 1.8GHz Qualcomm Snapdragon 450 processor ■ 3GB RAM ■ 64GB storage ■ 5.7in, 2,160 x 1,080-pixel screen ■ 12-megapixel rear camera, 8-megapixel front camera ■ 154 x 72 x 8.3mm ■ 167g ■ One-year return-to-base warranty

### SMART SPEAKER

#### Google Home Hub

£139 from [bit.ly/homehub463](https://bit.ly/homehub463)

Tested: Issue 463



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

#### KEY SPECS

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

### MONITOR

#### Philips Brilliance 241B7QPJKEB

£209.20 from [bit.ly/phil462](https://bit.ly/phil462)

Tested: Issue 462

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



#### KEY SPECS

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

### TABLET

#### Amazon Fire HD 8

£79.99 from [bit.ly/amazon461](https://bit.ly/amazon461)

Tested: Issue 461

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



#### KEY SPECS

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

### LAPTOP

#### Acer Aspire 5

£629.99 from [bit.ly/acer458](https://bit.ly/acer458)

Tested: Issue 458

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



#### KEY SPECS

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

### ROUTER

#### Linksys EA9500 Max-Stream

£224.99 from [bit.ly/lksy456](https://bit.ly/lksy456)

Tested: Issue 456

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



#### KEY SPECS

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



## SOFTWARE & SERVICES

### PHOTO-EDITING SOFTWARE

#### DxO PhotoLab

£99 from  
[bit.ly/dxo455](http://bit.ly/dxo455)

**Tested:** Issue 455

If you're put off by Adobe's subscription costs, DxO PhotoLab is the best alternative for managing and editing your photos. Its interface is streamlined and elegant, and the editing and image quality are exceptional. It's also very simple to use and comes with lots of sophisticated tools.

#### KEY FEATURES

RAW conversion ■ High quality noise-reduction ■ Optical corrections ■ Red-eye correction ■ Advanced light and colour ■ Batch processing ■ Selective tone ■ Full-screen mode ■ Spot-weighted mode



### VIDEO-EDITING SOFTWARE

#### Adobe Premiere Elements 2018

£86.56 from  
[www.adobe.com/uk](http://www.adobe.com/uk)

**Tested:** Issue 453

With its clean interface and sackful of special effects, Elements performs just about every action you'll ever need from a consumer-level video-editing suite. It's a powerful beast and rendering is super-speedy, even when exporting at 4K – but note that it only runs on 64-bit systems.

#### KEY FEATURES

Automatic editing ■ Image stabiliser ■ Surround-sound support ■ Stop-motion capture ■ Variable-speed control ■ Unlimited timelines ■ DVD disc authoring (no Blu-ray support) ■ 4K support ■ Requires Windows 7/8.1/10 or Mac OS (64-bit versions only)



### Web User Gold Award winners

#### ONLINE CALENDAR

##### Microsoft Outlook

Free from [bit.ly/outlook465](http://bit.ly/outlook465)

**Tested:** Issue 465

This excellent cross-platform calendar is the best option for organising your life – wherever you are, whatever device you use and whoever your account is with.



**NEW!**

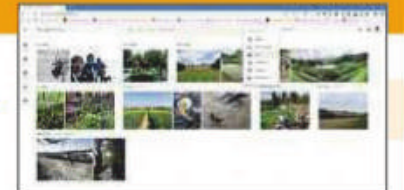
#### PHOTO-SHARING SERVICE

##### Google Photos

Free from [photos.google.com](http://photos.google.com)

**Tested:** Issue 464

Simple and smart, Google Photos has overtaken Flickr as the best way to share photos online. Its unlimited free storage is unbeatable and its Assistant is invaluable.



#### WEBSITE-BUILDING TOOL

##### Wix

Free from [www.wix.com](http://www.wix.com)

**Tested:** Issue 463

Wix is easy to master and has virtually no limits. Its wealth of add-ons can be used to create any kind of site you want.



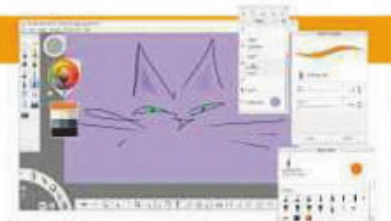
#### ILLUSTRATION SOFTWARE

##### Autodesk SketchBook

Free from [sketchbook.com](http://sketchbook.com)

**Tested:** Issue 462

This powerful drawing program is hard to fault and perfectly balances ease of use with sophistication and creative extras.



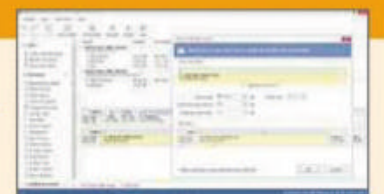
#### PARTITION MANAGER

##### Macrorit Partition Expert

Free from [bit.ly/macro461](http://bit.ly/macro461)

**Tested:** Issue 461

Partition Expert has a clean, easy-to-use interface with more features than the basic Windows Disk Management tool.



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# Best Free Software

## PARTITION MANAGER

### EaseUS Partition Master Free 13

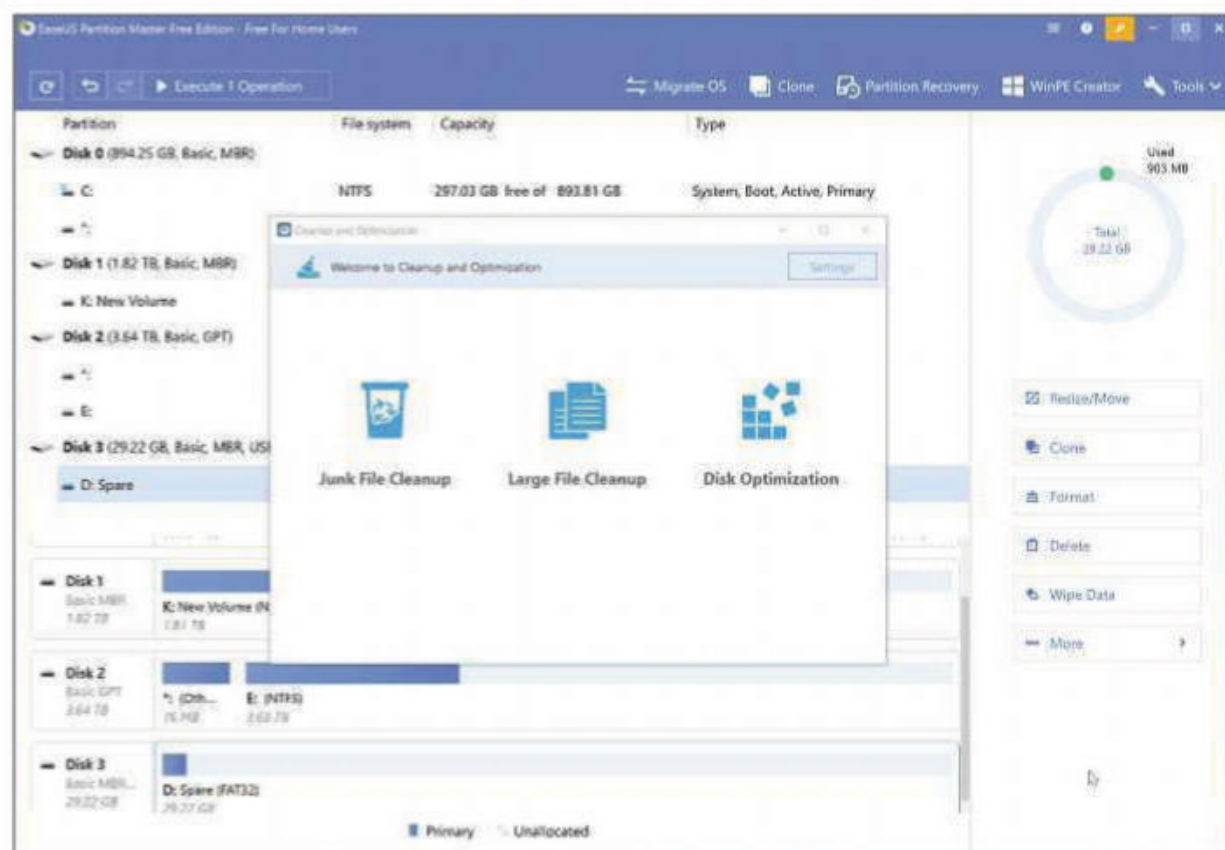
[bit.ly/epm466](http://bit.ly/epm466)

**Min requirements:** Windows 7/8.1/10

**File size:** 33.2MB

If you have a very large hard drive, it makes sense to partition it. Although partitioning is far from essential, splitting a 4TB drive into more manageable 1TB chunks will give you four separate “drives” for all your storage needs, each with its own drive letter. You can have one partition for your system, another for storing photos and videos, and so on. Windows comes with its own basic partitioning tool built-in, but there are better third-party solutions, such as this popular free offering from EaseUS.

Partition Master Free is a powerful tool that can create, resize, format and delete drive partitions, as well as convert, explore and hide partitions and

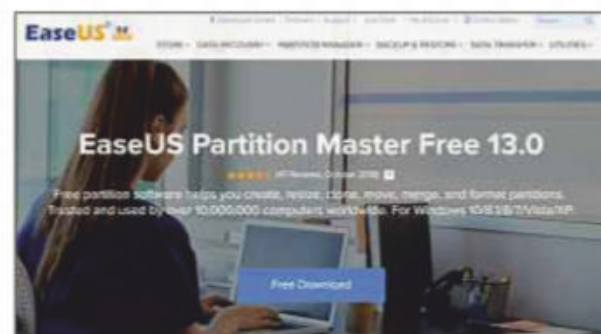


change drive letters. The software can also copy disks and volumes (which is handy if you’re moving the contents of one drive to another), wipe drives, recover data and rebuild a damaged or missing master boot record. It works with drives up to 8TB in size, and comes with a Cleanup and Optimisation module (found under Tools, System Optimise) which offers Junk File Cleanup, Large File Cleanup and Disk Optimisation tools.

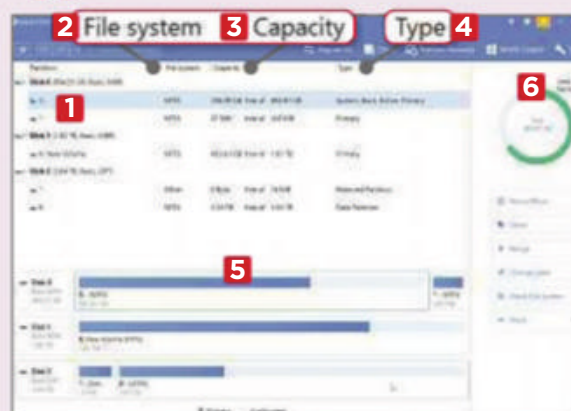
Version 13 of Partition Master has a revamped user interface, which EaseUS

says is “more streamlined and intuitive”. In addition, you can now create WinPE bootable disks in any supported language, while a new fast rollback feature protects data in the event of the move or resize processes being interrupted.

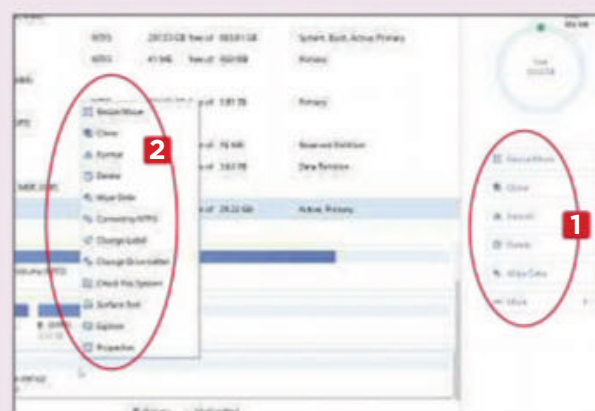
If you need additional features, such as the ability to manage dynamic volumes, convert system disks from one format to another and migrate your operating system to another drive without reinstalling, you can upgrade to Partition Master Pro for £47.99.



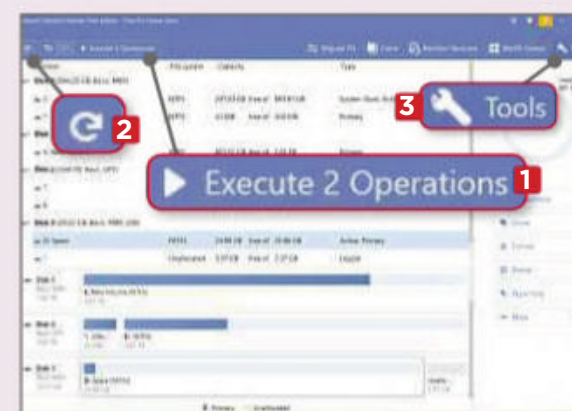
## MINI WORKSHOP | Manage your partitions using EaseUS Partition Master Free 13



**1** Run EaseUS Partition Master Free and it will list all the drives in or connected to your system. It displays information, including the disk details, **1** file system, **2** capacity **3** and type, **4** and you can view the partitions below. **5** The circle on the right shows used and unused space. **6**



**2** Select a drive or partition on the left, and the operations available on the right will update accordingly. **1** You can also view the list of available operations **2** by right-clicking the drive. The options allow you to resize or move a partition; clone, format or delete it; wipe the data; run a Surface test; and more.



**3** Click an option and a new window opens allowing you to perform the required task. Make the changes and click OK. The number of pending operations are shown at the top **1** and you can action them from there. You can undo the last change. **2** Additional features can be found under Tools. **3**



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



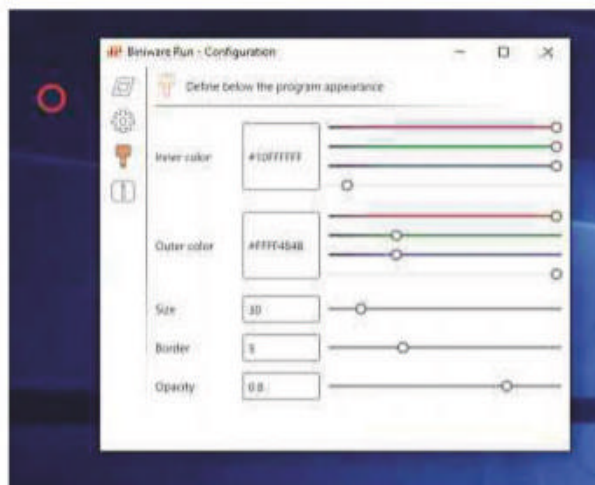
## SYSTEM TOOL

### Econap

[www.stand-bye.de](http://www.stand-bye.de)

**Min requirements:** Windows 7/8.1/10 **File size:** 6.9MB

Windows can be set to put your PC to sleep after a period of inactivity. Econap – formerly called Stand-Bye! – does the same thing, but makes sure that your system is truly idle before taking action. It won't kick in while music is playing or an app is running full screen, for instance. The program is highly configurable, so it can be tweaked to suit your needs. There's an advanced Plus version of Econap available for €9.99 (£8.97), which can detect more activity.



## SYSTEM TOOL

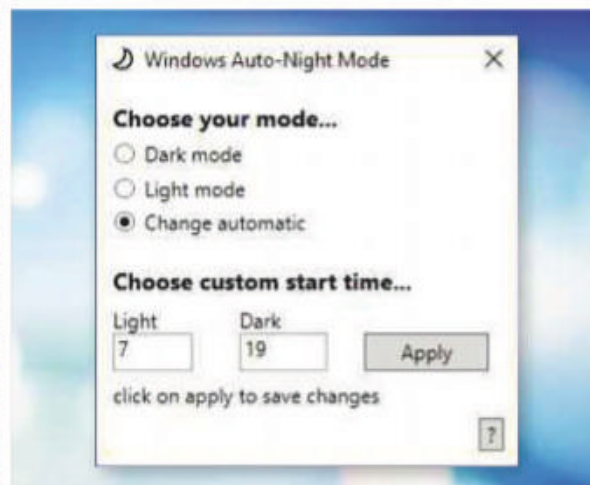
### Biniware Run

[biniware.com/brun](http://biniware.com/brun)

**Min requirements:** Windows 7/8.1/10

**File size:** 129KB

The tiny Biniware Run provides an easy way to access your favourite websites, files and folders. Just drag some links or items to the red circle on your desktop to add them. Left-clicking the circle displays the shortcuts menu – providing access to your content – while right-clicking opens the configuration menu. You can customise the appearance of the circle by changing its colour and adjusting its size and opacity.



## SYSTEM TOOL

### Windows 10 Auto-Night-Mode

[bit.ly/autonight466](http://bit.ly/autonight466)

**Min requirements:** Windows 10

**File size:** 584KB

Windows 10 Auto-Night-Mode is a clever free tool that switches between light and dark modes automatically. Just select the 'Change automatic' option and specify when you want the modes to change – for example, Light at 7am and Dark at 7pm. The program uses the Task Scheduler to change modes, so it doesn't need to run continually in the background.

## New Windows Apps

### ScreenToGif

[bit.ly/screentogiff466](http://bit.ly/screentogiff466)

**Min requirements:** Windows 10

**File size:** 8.6MB

This screen and webcam recorder has a built-in editor. It can create and edit animated GIFs and there's a 'board' mode for recording drawings.



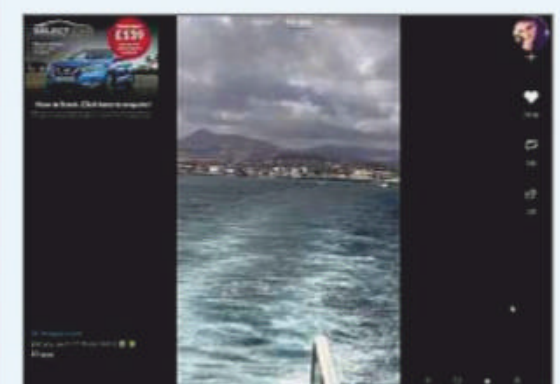
### 7 Tik

[bit.ly/7tik466](http://bit.ly/7tik466)

**Min requirements:** Windows 10

**File size:** 27.2MB

7 Tik is third-party app for TikTok, the short-form mobile video-sharing service. It lets you find, watch, share and comment on the latest videos, and search for content by name, user or hashtag.



### Best of Bing 2018

[bit.ly/bing466](http://bit.ly/bing466)

**Min requirements:** Windows 10

**File size:** 11.2MB

Microsoft's search engine displays a different background photo every day. Best of Bing is a collection of 18 of the finest images from last year, to use as Windows wallpaper.





## BOOTABLE USB CREATOR

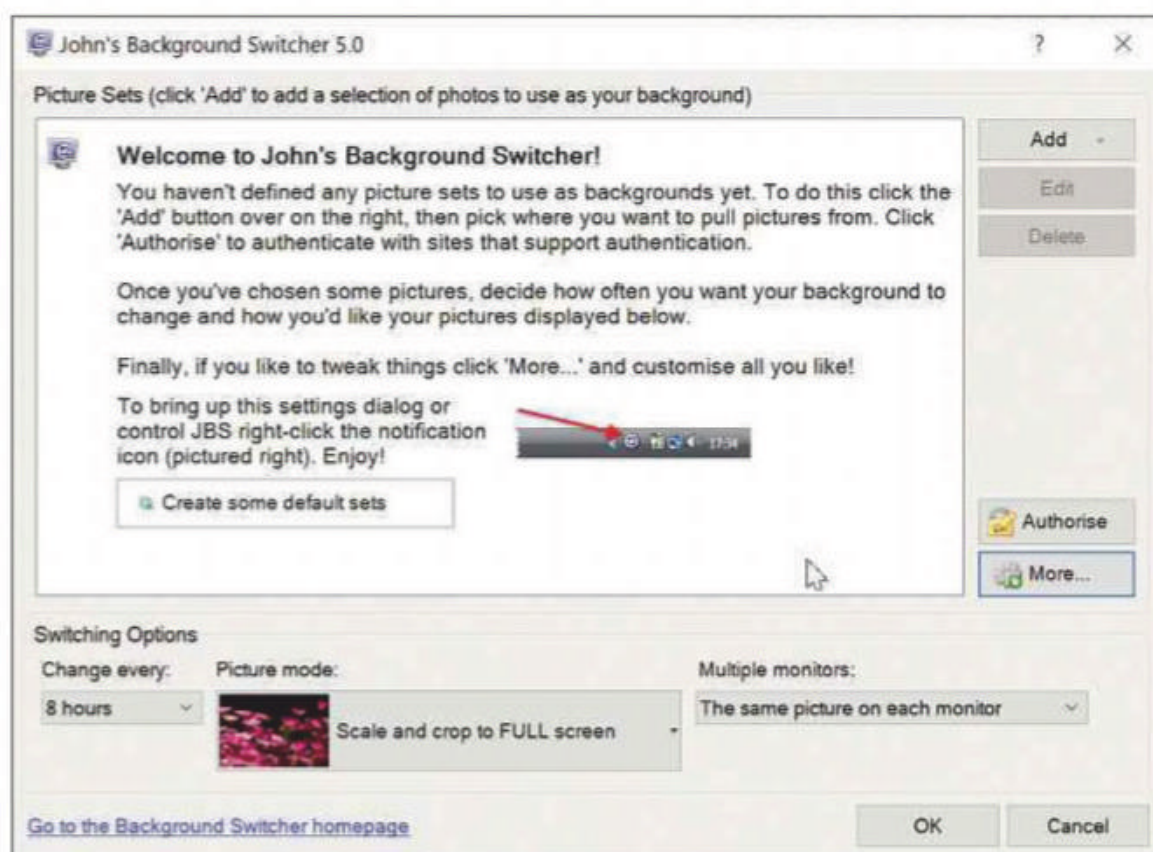
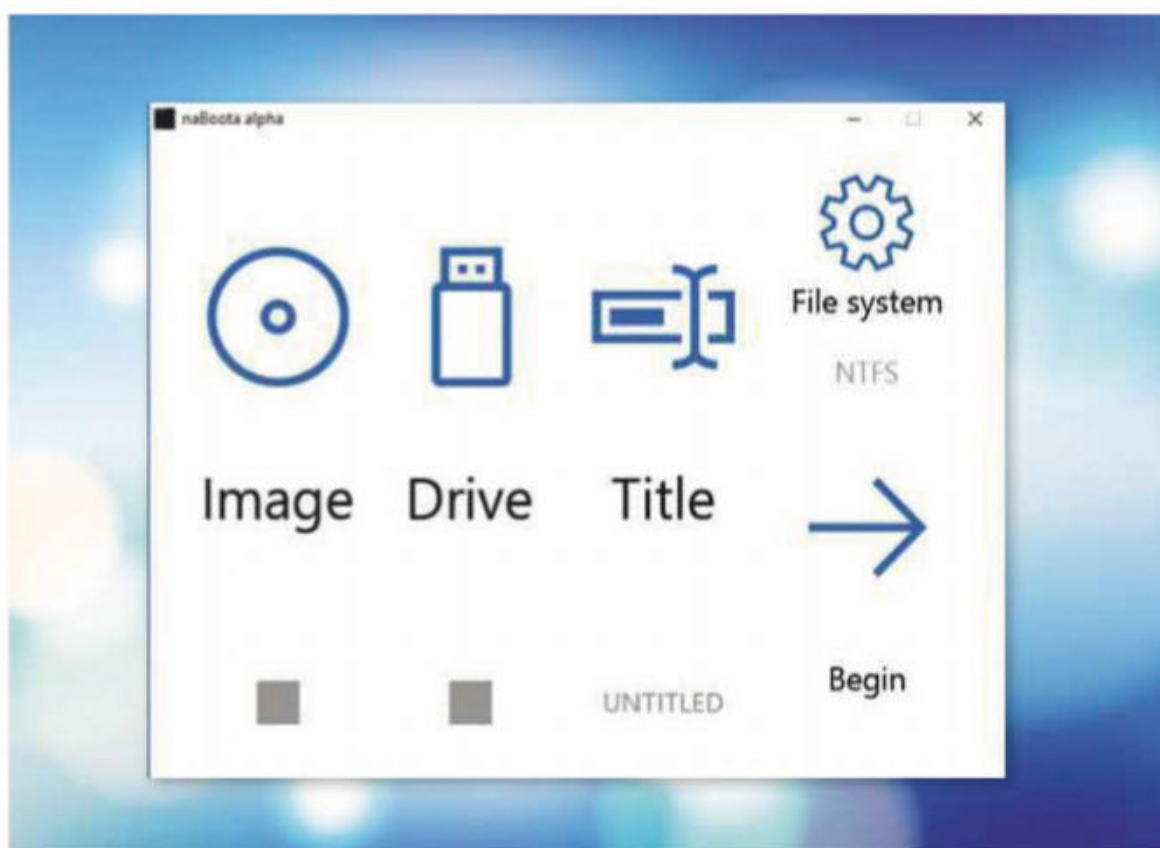
### naBoota

[sodiumworks.com/naboota](http://sodiumworks.com/naboota)

**Min requirements:** Windows 7/8.1/10

**File size:** 2.5MB

The majority of operating systems, including Windows and Linux, are available to download in ISO format. These image files can be written to CD or DVD, but if you want to create a bootable USB flash drive, then you'll need a third-party tool such as naBoota. This new program is very easy to use: just click the Image button to find the downloaded ISO file, click Drive to set the destination and then Title to name it. Finally, choose the file-system type and click Begin. Unlike similar tools, there are no advanced features to worry about, which makes naBoota ideal for less technically confident users.



## WALLPAPER MANAGER

### John's Background Switcher 5

[bit.ly/jbs466](http://bit.ly/jbs466)

**Min requirements:** Windows 7/8.1/10

**File size:** 2.6MB

John's Background Switcher, or JBS for short, automatically changes your Windows wallpaper at predetermined intervals. It can pull images from your hard drive, or from photo sharing websites such as Flickr, SmugMug, Unsplash, Instagram and – new to this version – Google Photos. JBS is not limited to just displaying single images either: it can also lay out photos in montages or as an attractive mosaic. Version 5.0 lets you select photos from all sources when changing the wallpaper, so you can have montages made up of photos from all supported services. The latest version has been tweaked to display properly on high-res screens.

## ANDROID EMULATOR

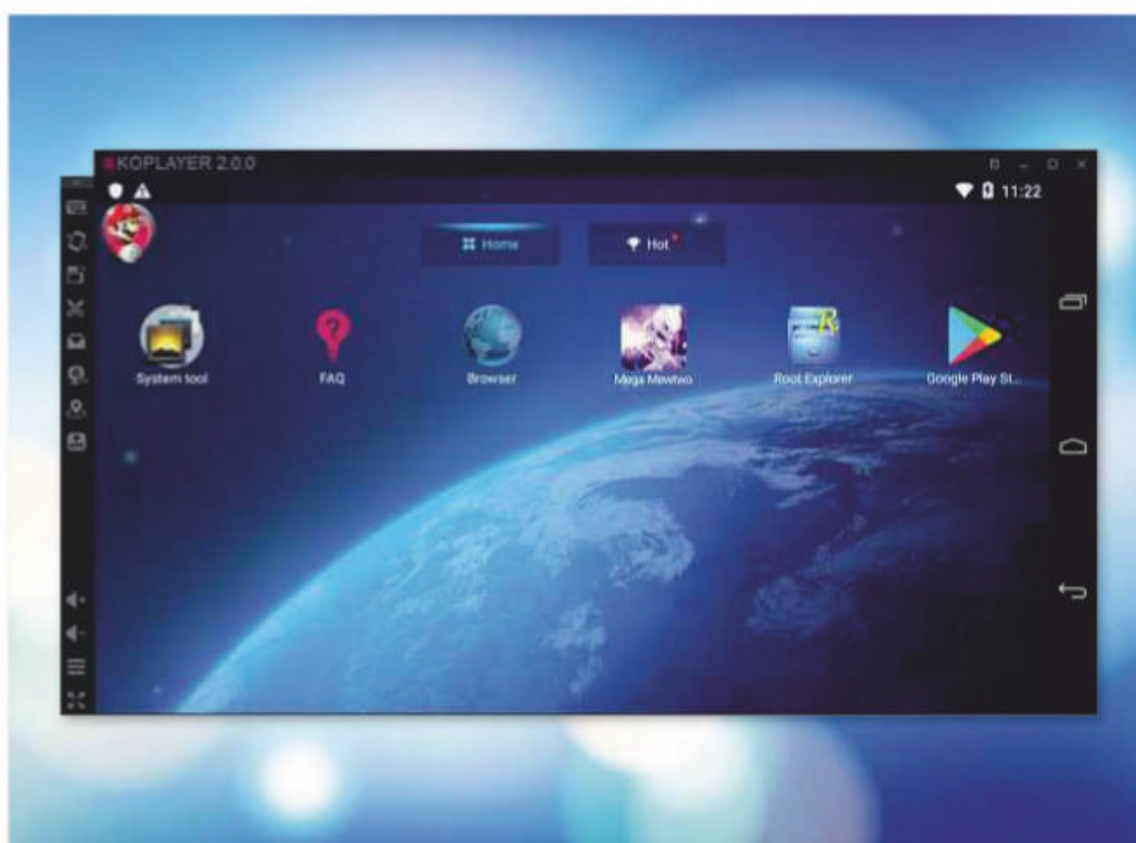
### Koplayer 2

[koplayer.com](http://koplayer.com)

**Min requirements:** Windows 7/8.1/10

**File size:** 603MB

Android emulators such as Koplayer let you run mobile apps and games in Windows. You can either run apps that are available on Google Play (the software comes with the store built-in), or sideload ones downloaded in APK (Android Application Package) format from the site. It supports advanced features like OpenGL and hardware acceleration, allows multiple accounts and supports video recording, and gamepads and keyboards. This new version upgrades the Android system to version 6 (Marshmallow), and fixes some compatibility issues. Koplayer 2 also offers a number of new rendering modes for displaying apps on your screen.







## GAME

### Chocolate Doom 3

[www.chocolate-doom.org](http://www.chocolate-doom.org)

#### Min requirements:

Windows 7/8.1/10 or Mac OS

**File size:** 2.7MB

Relive the 1990s by immersing yourself in Chocolate Doom, which lets you play the original Doom first-person shooter on a modern PC. You will need an IWAD file to play it (view the install.txt file to find out how to get this). This updated release can run in high quality on all screen sizes, and you can switch between full and windowed modes.

## Don't install...

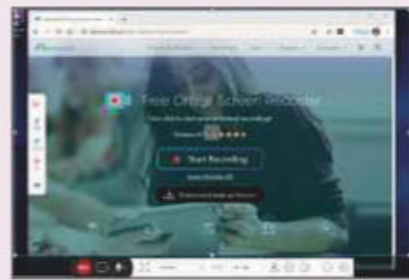
### Apowersoft Free Online Screen Recorder

[bit.ly/apow458](http://bit.ly/apow458)

**Min requirements:** N/A

**File size:** N/A

Apowersoft claims to let you record what's on your screen using a web app, rather than having to download and install software. However, it requires you to download and install a helper program, set up an account to remove watermarks and jump through a number of other hoops – which rather undermines any labour-saving claims.



## ...Install this instead

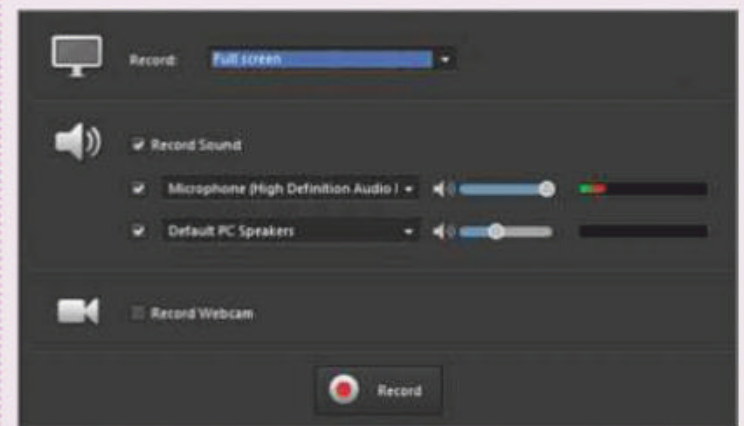
### FlashBack Express

[bit.ly/fbex458](http://bit.ly/fbex458)

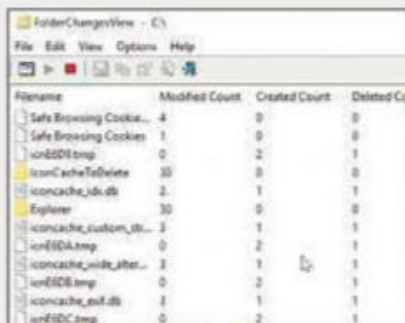
**Min requirements:** Windows XP/Vista/8.1/10

**File size:** 21.6MB

FlashBack Express is the free version of paid-for software (FlashBack Pro) but is still a superb tool for recording anything that's happening on your screen. The simple interface offers a few key options, including whether to record full screen, a specific window or within a region of your choosing. You can also choose where sound is going to come from, and record footage from a webcam if you have one connected. Files can be saved in FlashBack's own format, exported to MPEG4, AVI or WMV, or uploaded straight to YouTube or another website via FTP.



## UPDATED | New tweaks and fixes for your favourite free programs



## FOLDER MONITOR

### FolderChangesView 2.25

[www.nirsoft.net](http://www.nirsoft.net)

#### Min requirements:

Windows 7/8.1/10

**File size:** 71.3KB

Set this tiny tool to monitor any drive or folder on your PC and it will show the files as they get modified, created or deleted – all in real time. This version can execute a command when there is a new item, or when an existing item gets updated.



## IMAGE VIEWER

### IrfanView 4.52

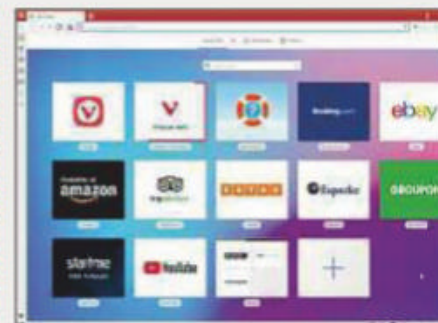
[www.irfanview.com](http://www.irfanview.com)

#### Min requirements:

Windows 7/8.1/10

**File size:** 2.35MB

IrfanView is a tiny image viewer and editor that's packed with useful and easy-to-use features. This update gains a 'Set file size' choice for saving JPEGs, and offers some new options in the IrfanView Shell Extension. The program can now handle animated WebP files.



## BROWSER

### Vivaldi 2.2

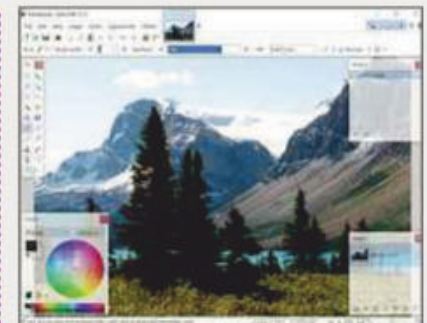
[Vivaldi.com](http://Vivaldi.com)

#### Min requirements:

Windows 7/8.1/10, Mac OS or Linux

**File size:** 52.4MB

Vivaldi is a highly customisable browser with a minimalist design, and this latest version adds new ways to manage tabs, integrates Pop Out video and makes toolbars more configurable. See Best New Browser Tools on page 32 to find out more about its new Access Keys feature.



## IMAGE EDITOR

### Paint.net 4.1.5

[getpaint.net](http://getpaint.net)

#### Min requirements:

Windows 7/8.1/10

**File size:** 7.5MB

Paint.net is one of the best free photo-editing tools available. This updated release improves rendering-engine performance and can rotate images almost instantly. Plug-ins should run much faster now, and a number of bugs have been fixed. ■

**GET FREE SOFTWARE FIRST** subscribe to Web User at [subscribe.webuser.co.uk](http://subscribe.webuser.co.uk)



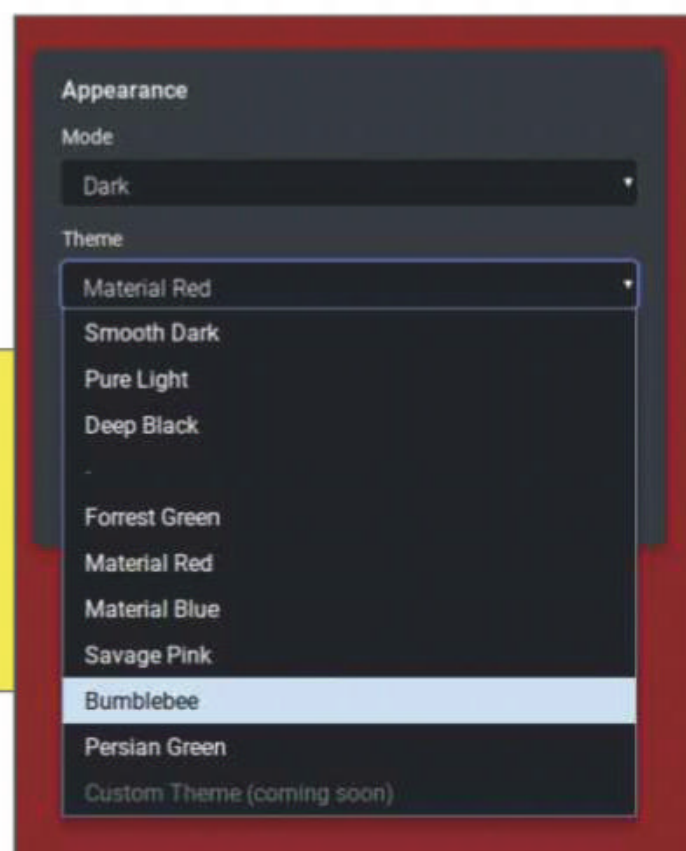
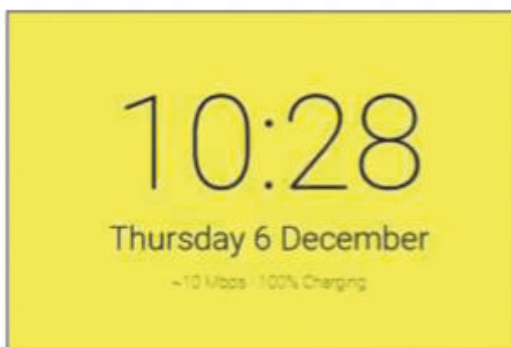
# Best New Browser Tools



## CHROME

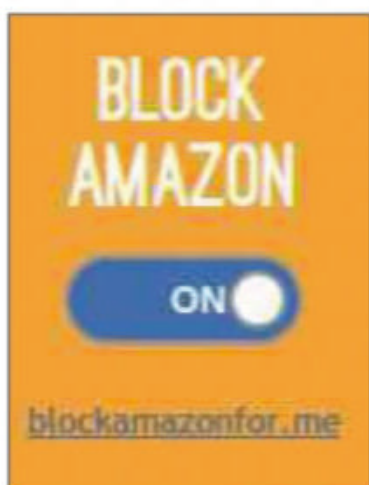
### Give your New Tab page a minimal makeover

The start of a new year is the perfect time to refresh your New Tab page, and if you're not fussed about seeing pretty pictures then Minimo ([bit.ly/minimo466](http://bit.ly/minimo466)) is the ideal extension. This "elegant, minimal" tool lets you customise your new tabs with a dark or light theme, and a choice of colours including Savage Pink, Material Red and Bumblebee (yellow). It displays the current time and date in the centre of the page, usefully accompanied by your estimated download speed and battery level. You can add shortcuts to your favourite sites, and view synced Chrome tabs from other devices at the bottom of the page. Minimo also offers a 'writing mode' for jotting down your thoughts, and speedy access to your bookmarks, history and downloads, but its elegant minimalism is what makes it so appealing.



### Boycott Amazon and other sites that it owns

Amazon may be the biggest store the world has ever known, but it didn't get where it is today without causing controversy, from tax avoidance and anti-competitive business practices to its alleged poor treatment of warehouse workers. Yet we still head to Amazon, almost automatically, whenever we need to buy anything online. A group of activists is expressing its disgust with the retail behemoth with a Chrome extension called Block Amazon For Me ([blockamazonfor.me](http://blockamazonfor.me)), which prevents you from making multi-billionaire CEO



Jeff Bezos even richer. When you try to visit Amazon, or other sites it owns such as IMDb, Twitch and Audible, the add-on denies you access, forcing you to use a more ethical alternative. You can easily switch it off when you want to suspend your boycott to do some shopping!

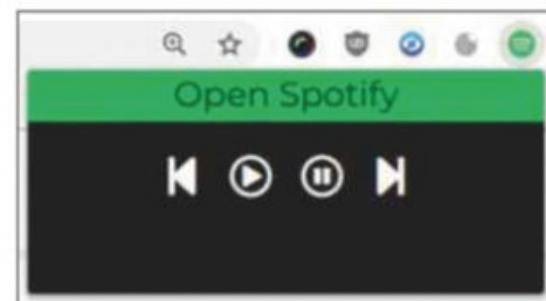
### Identify outdated news on Facebook

Lots of Facebook users fail to check the date of the stories they share, 'like' and comment on, which makes the site a prime source of misinformation – or fake news, if you prefer – and leads to people grieving over celebrities who died years ago or raging about rumours long dispelled. A new Chrome extension

called Sure Or Not ([bit.ly/sure466](http://bit.ly/sure466)) addresses this problem by flagging outdated news on your Facebook feed as 'Old' so you don't end up resharing or reacting to it. We're not sure how old stories need to be for the add-on to classify them as such, but it could certainly prevent embarrassment.

### Control Spotify from any web page

If you like to listen to music using Spotify's Web Player ([open.spotify.com](http://open.spotify.com)) as you browse the internet, you'll know how frustrating it is to have to keep switching tabs when you want to play, pause and skip tracks. Spotify Controller ([bit.ly/spotify466](http://bit.ly/spotify466)) makes life much easier by letting you control the player from any web page. Just click its toolbar button to access Play, Pause, Back and Forward controls, as well as an option to open the player directly.





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



## FIREFOX

### Stop dodgy websites hacking your tabs

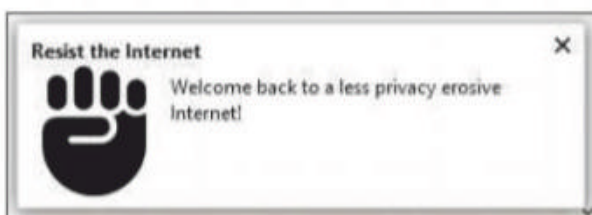
Did you know that when you click a link that opens a page in a new tab, the new page can control the content in the previous tab and even load a new page? It's a trick often exploited by advertisers and is a clear security risk if the site you've opened contains malware. Web designers can stop this happening by adding the attribute 'rel="noopener"' to links that open pages in new tabs, but many don't bother, which is where Don't Touch My Tabs ([bit.ly/touch466](http://bit.ly/touch466)) comes in. This Firefox add-on searches web pages for links to other pages that are not hosted on the same domain, and adds the rel="noopener" attribute to them. This ensures that malicious sites aren't able to infect your browser, but doesn't 'break the internet' and prevent links from working properly.

Mozilla is currently testing a feature that will automatically add rel="noopener" to links, to be included in the next version of Firefox.



### Beat online surveillance automatically

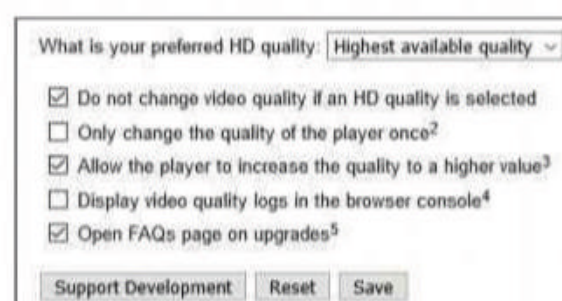
We all know that Facebook and Google spy on us and guzzle our data, yet we use them anyway – often out of habit rather than necessity. A new Firefox add-on called Resist the Internet ([bit.ly/resist466](http://bit.ly/resist466)) is leading the charge against online surveillance by redirecting you away from invasive tech giants and toward “privacy-preserving alternatives”.



For example, if you try to search the web using Google, you'll be automatically redirected to DuckDuckGo, which doesn't track you or store your searches. Attempt to access Google Maps and you'll be taken instead to the privacy-respecting OpenStreetMap, while Facebook and Twitter are blocked in favour of the community-run social network Mastodon. The developer describes Resist the Internet as “primarily a joke” and “not really recommended for any serious use”, but it's actually an effective privacy tool.

### Force YouTube to stream at maximum quality

YouTube automatically adjusts the streaming quality of videos based on the speed of your internet connection, the size of the video player and the quality of the uploaded content, but you may sometimes feel it's shortchanging you on picture quality. You can increase this by clicking the Settings cog below a video and choosing a higher resolution from the Quality menu, but an easier option is to install YouTube in HD ([bit.ly/youtube466](http://bit.ly/youtube466)). This forces YouTube's HTML5 and Flash players to stream videos at the highest quality possible, be it 1080p HD, 1440p or even 2160p – you can choose your preferred resolution in the add-on's options, and even go lower if you like. It also monitors changes in the streaming quality of the video and adjusts itself accordingly.

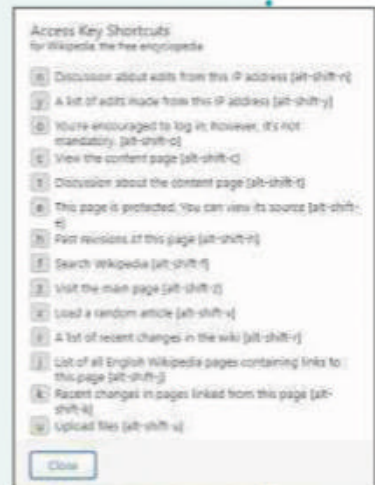


## OTHER BROWSERS



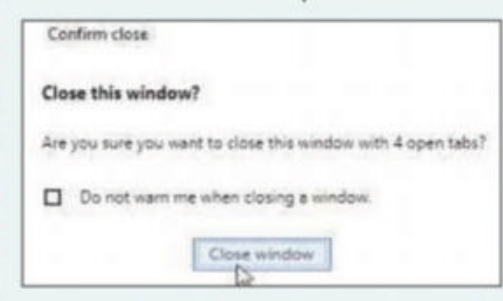
### Show access keys for websites

Some websites support 'access keys' – keyboard shortcuts that let you jump to specific sections and tools without using your mouse – but few of them tell you what those keys actually are. So kudos to Vivaldi for adding a new feature to version 2.2 of the browser that shows you all available access keys for the current site. The option is available through Vivaldi's Quick Commands menu, which you can open by pressing F2 on your keyboard. Start typing access until you see the command Show Webpage Access Key Shortcuts, then select it and press Enter.



### Activate the window warning

Version 58 of Opera – currently in beta and due for release later this month – adds a Firefox-style feature that warns you when you try to close a browser window containing lots of open tabs. This guards against accidentally losing data you've typed when filling in forms or writing comments, but if you find it annoying, just select 'Do not warn me when closing a window'. To turn the warning back on again, go to Settings, Advanced, Browser and, in the 'User interface' section, switch on the option 'Warn on closing windows with multiple tabs'.





# Best Free Apps



## App of the Fortnight

ANDROID

### Bottom Quick Settings

[bit.ly/bottom466](http://bit.ly/bottom466)



Ever get annoyed with the way Android's pull-down quick-settings panel requires two hands to access? If so, this clever little app may offer the solution.

As its name suggests, Bottom Quick Settings places a panel with all the shortcuts and buttons from Android's settings panel at the bottom of the screen rather than the top, thus emulating (or outright stealing, if you like) the iOS way of doing things (on iPhone models that still have a Home button, at least). With Bottom Quick Settings, you can access your device's most essential settings by sliding the control panel up from the bottom of the screen single-handedly, with an easy flick of the thumb.

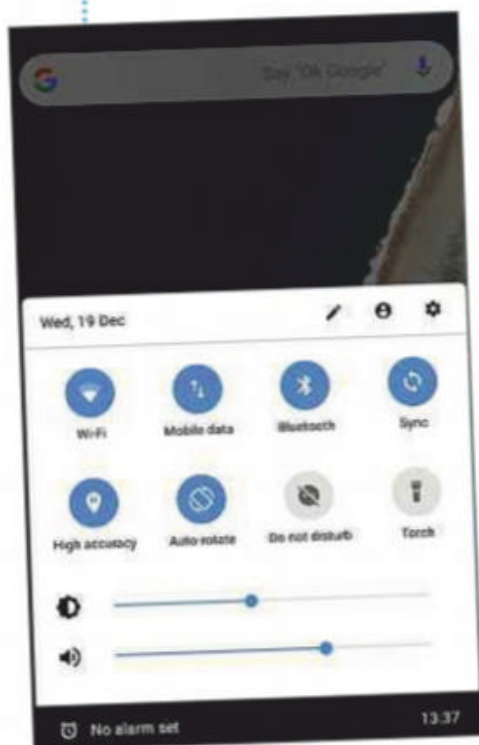
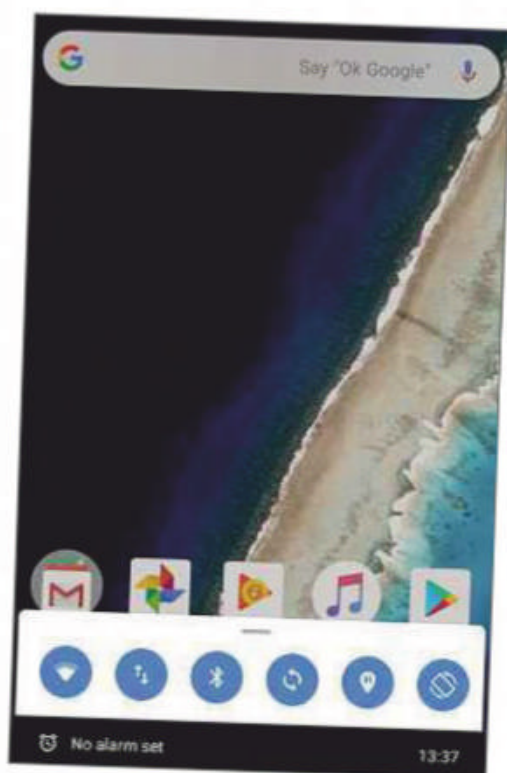
It's arguably a preferable way to access these important tools and feels very natural, especially if you've switched to using Android from an iOS device. Better still, you can also customise how the panel looks and works, to a lesser or greater degree, depending on whether you're using the free or paid-for version.

The Bottom Quick Settings panel contains handy shortcuts for Bluetooth, Wi-Fi and more, as well as controls for brightness, volume and other adjustments. The free version lets you add or remove various sliders – for volume and screen brightness, for example – and also customise the way the panel itself works.

If you pay £2.39 for the premium version, you can unlock the ability to choose and organise the panel's shortcuts and add any web link or app. Bottom Quick Settings has recently been updated and now offers new volume control options, as well as a dark

theme and a new widget. A dedicated VPN tile had also been added.

UPDATED



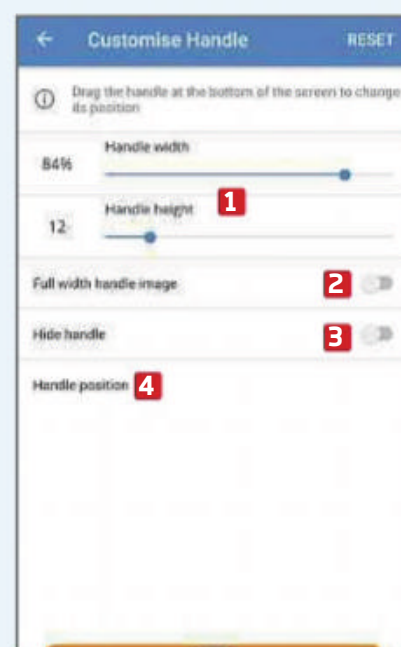
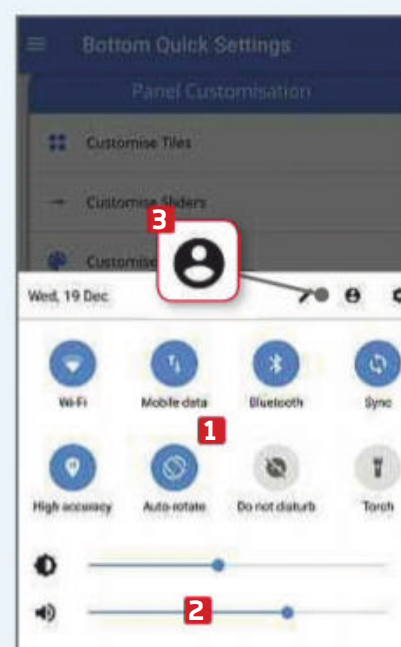
### MINI WORKSHOP

### Use your phone one-handed with Bottom Quick Settings

**1** Launch Bottom Quick Settings and run through the initial setup wizard, giving the app permission to modify settings and toggle Do Not Disturb when prompted. When you reach the app's main screen, press the switch next to 'Service not running' **1** to enable the tool. Now tap Customise Sliders. **2** The brightness slider is enabled by default, but you can also enable various volume sliders.

**2** You'll now see a handle – a small line – toward the bottom of your screen. To access the Bottom Quick Settings panel, swipe up from this line. A short swipe pulls up a single row of icons for essential quick-access settings, such as Wi-Fi and Bluetooth. A longer swipe reveals the full panel, with two rows of icons, **1** the sliders you selected in Step 1 **2** and quick links to your device settings and account. **3**

**3** If you're finding it awkward to access the Bottom Quick Settings panel, you may want to try customising the handle used to pull it up. In the app's settings, press Customise Handle. You can change the handle's width and height, **1** and set it to take up the full width of the screen **2** or make it invisible. **3** Tap 'Handle position' **4** to move it to the left or right of the screen.



Our rating







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

## SOCIAL MEDIA

### Instagram

[bit.ly/instadroid466](https://bit.ly/instadroid466)  
[bit.ly/instaios466](https://bit.ly/instaios466)  
 varies  9

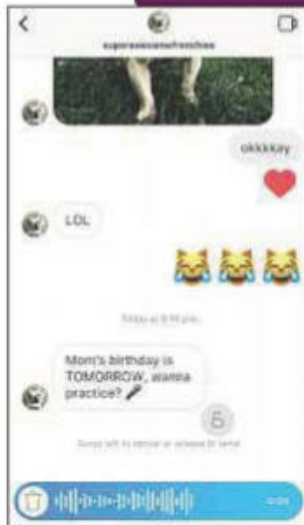
The latest version of the Facebook-owned social-media app introduces a useful new feature that's borrowed from (the also Facebook-owned) WhatsApp, which lets you record and send direct voice messages. While in a thread, tap and hold the microphone button (to the right of the message box at the bottom of the screen) and dictate your message, then release the button to send. The update, available now on iOS and Android, also includes the ability to curate a Close Friends list and makes a number of accessibility tweaks.



Our rating



### UPDATED



## SECURITY

### Cover

[bit.ly/cover466](https://bit.ly/cover466)  
 4.4

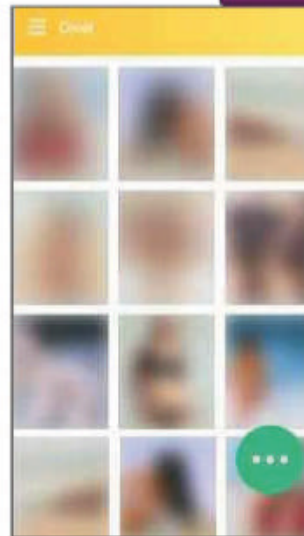
If you keep any files of a sensitive nature stored on your Android device, which you'd rather nobody else ever stumbled upon, then Cover could help. The idea is that it scans your phone or tablet for NSFW (not safe for work)-type photos and videos, identifying them using machine learning. It then safely tucks the embarrassing or incriminating images away in a password-protected gallery. Cover is an appealing enough concept, but scanning can take ages and the app would be a lot more useful if it expanded its remit to include other types of private files, such as bank details.



Our rating



### NEW




### NEW



## GAME

### Star Trek Fleet Command

[bit.ly/trekdroid466](https://bit.ly/trekdroid466)  
[bit.ly/trekios466](https://bit.ly/trekios466)  
 4.4  10

Boldly going where no massively multiplayer online strategy gamer has gone before, Star Trek Fleet Command puts you in charge of a starbase, from where you can explore, forge alliances with alien races, upgrade your base, build classic starships and interact with characters from the franchise. The game is free to play, and the in-app purchases are thankfully optional.




Our rating



## PHOTOS

### Lensa

[bit.ly/lensa466](https://bit.ly/lensa466)  
 11.3

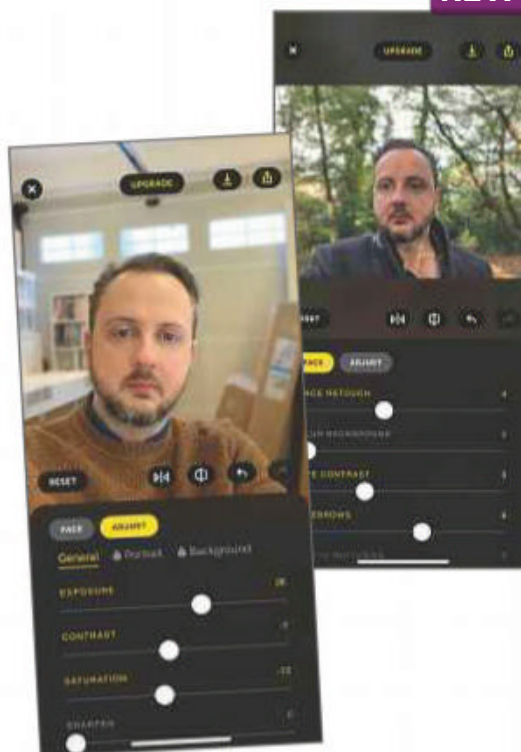
We can't always look our best in every photo, but Lensa's app – from the same developer as Prisma – tackles this by applying an auto-retouch filter to every selfie or portrait you take. You can also retouch manually, removing imperfections, blurring backgrounds or adding definition to eyes and brows in a single swipe, via easy-to-use sliders. Crucially, the effects are relatively subtle and natural looking – not obviously fake or heavily filtered. You can also adjust contrast, exposure and other settings. The main features are free, but advanced options, such as Background editing, require a £4.49 per month Premium subscription.



Our rating



### NEW



## TOOLS

### StorySign

[bit.ly/storysign466](https://bit.ly/storysign466)  
 6

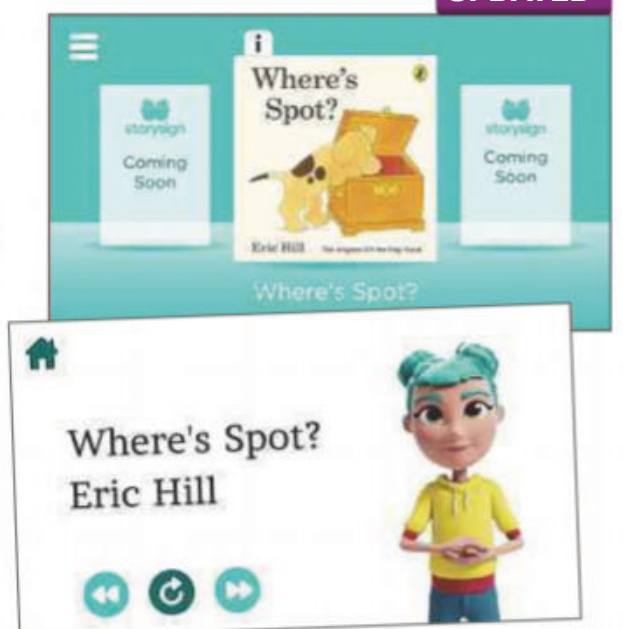
This brilliant app translates children's books into sign language to help young people with deafness or hearing impairments learn how to read. The app is intended for use in conjunction with a physical copy of a book. As you read, cartoon character Star (designed by none other than Aardman Animations) signs the words. Currently, there's only one book available – Eric Hill's *Where's Spot?* – but more are coming soon. StorySign works in 10 different sign languages, including British Sign Language (BSL). The app was developed specifically for Huawei devices, but it's compatible with models from most other Android manufacturers.



Our rating



### UPDATED





# 5 NEW APPS WORTH PAYING FOR

## GAME

### This is the Police

[bit.ly/policedroid466](http://bit.ly/policedroid466)

[bit.ly/policeios466](http://bit.ly/policeios466)

**Price:** £6.99 (Android and iOS)

 5  8

This strategic adventure game – originally for PC and console – finally sees a mobile release. As hard-boiled police chief Jack Boyd, you must manage your force and make morally challenging decisions.



## SECURITY

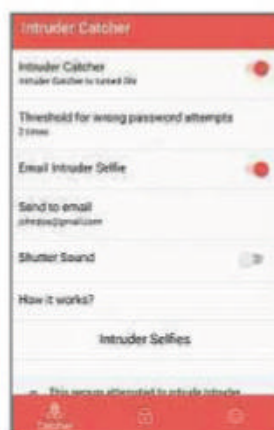
### Intruder Catcher

[bit.ly/intruder466](http://bit.ly/intruder466)

**Price:** 59p

 5

Has your phone been stolen? This app will automatically take a secret selfie of the thief and email it to you. You can also use it to protect data by disguising and locking apps.



## KIDS

### Pango Kumo Weather

[bit.ly/pangodroid466](http://bit.ly/pangodroid466)

[bit.ly/pangoios466](http://bit.ly/pangoios466)

**Price:** £2.59 (Android), £2.99 (iOS)

 4.1  8



The latest app from Studio Pango gently teaches young children about the weather, under the guise of a game where kids get to play as a cloud, bringing colour back to the world.

## CLOCK

### The Clock by Seense

[bit.ly/clock466](http://bit.ly/clock466)

**Price:** £5.99

 11

If you find Apple's built-in clock lacking, this may be the replacement you're after. It's highly customisable, works across multiple time zones and integrates with the iOS Calendar.



## FILE MANAGER

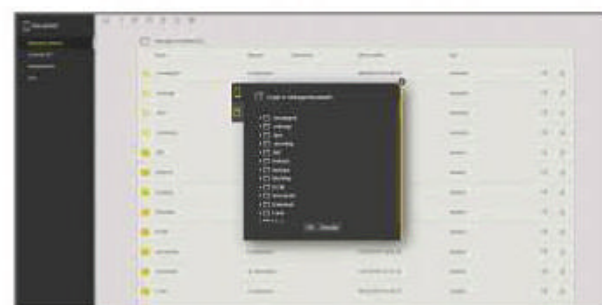
### WiFile Explorer

[bit.ly/wifile466](http://bit.ly/wifile466)

**Price:** 69p

 5

This app provides a quick and easy wireless way to manage the files on your Android device via any dekstop browser. Just enter the URL and you can move, copy and transfer files, and more.



This is the Police



Intruder Catcher



Pango Kumo Weather



The Clock by Seense



WiFile Explorer



## Don't install...

### Keepfit

[bit.ly/keepfit466](http://bit.ly/keepfit466)

There are loads of apps that offer to keep you in shape for 2019 but the promisingly titled Keepfit is one to avoid.



Its nonsensical description: "keep fit app use with hardware the capable of measuring weight, visceral fat" offers a clue to the app's level of usefulness. And the fact that it crashed three times before we'd even entered our weight rather sealed its fate.

## ...Install this instead

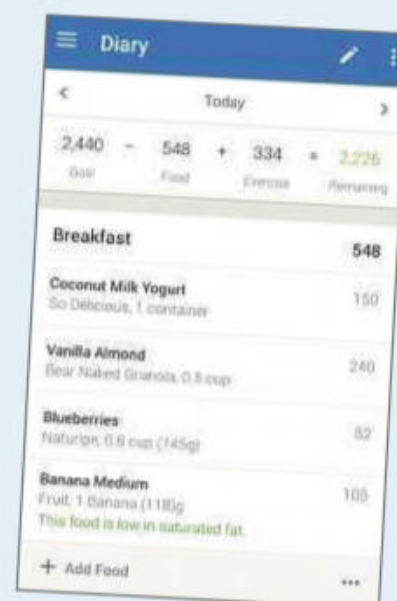
### MyFitnessPal

[bit.ly/fitnessdroid466](http://bit.ly/fitnessdroid466)

[bit.ly/fitnessios466](http://bit.ly/fitnessios466)

 varies  10

The fitness-app market has become increasingly crowded, with lots of apps from manufacturers of fitness bands, as well as tools from Apple and Google all competing for our attention. But MyFitnessPal remains head and shoulders above most of its rivals, simply by dint of it offering easy, flexible ways to manage different aspects of your day-to-day wellbeing. You can keep count of your calories, log exercise, set yourself achievable goals and much more – all from within a single app. It supports all major fitness trackers and you can even use the app's social tools to help maintain your level of motivation. ■





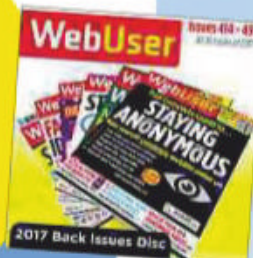


# Take a Screen Break

Give your eyes a rest from your browser by taking our fiendish fortnightly challenges. Can you guess our 1980s films emoji and our web year?

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

Email your answers to [webuser@dennis.co.uk](mailto:webuser@dennis.co.uk)  
- one correct entry  
will win a disc



## CAN YOU GUESS THE EIGHTIES FILMS FROM THE EMOJI?



## GUESS THE TECHNOLOGY YEAR

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

1 The most popular tech toy of the year is the Tamagotchi, a handheld digital pet that needs to be fed and nurtured to keep it happy and stop it dying.

2 IBM's Deep Blue computer makes history by beating Garry Kasparov at chess, becoming the first machine to defeat a reigning world champion.



3 The groundbreaking driving game Grand Theft Auto is released for Sony's PlayStation console. It goes on to sell 125 million copies worldwide.



4 The first DVD players go on sale in the UK, although their high price (upwards of £600) and lack of available discs makes them slow to take off.



5 The Netscape Communicator suite, which includes an email client, HTML editor and the popular web browser Netscape Navigator is released.



## COMPETITIONS

### WIN 1 OF 5 WinZip 23 Pro

WinZip 23 Pro lets you zip, protect, share and manage files across your computer, network and cloud accounts, and supports a wide selection of compressed file types. New features like Set Expiration Dates for Files and Folders streamline your workflow. To enter, email your address to [webusercomp@dennis.co.uk](mailto:webusercomp@dennis.co.uk) with 'WinZip' in the subject line. For more details visit [www.winzip.com](http://www.winzip.com).



WORTH  
£51.54  
EACH

### WIN 1 OF 4 Blink XT external security camera

When the Blink XT detects motion, it sends an HD video with audio to your phone (Android or Apple). Its infrared night vision gives you around-the-clock surveillance of your home. To enter, email your address to [webusercomp@dennis.co.uk](mailto:webusercomp@dennis.co.uk) with 'blink' in the subject line. For more information, visit <https://blinkforhome.co.uk> and follow [@blinkforhomeuk](https://twitter.com/blinkforhomeuk) on Twitter.



WORTH  
£149.99  
EACH





# FAQ

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

## AI predictive policing

Could the police target you for crimes you're yet to commit? **David Crookes** looks at how a science-fiction concept has become reality

### 'Ello, 'ello, 'ello – what's all this then?

AI-powered predictive policing is an attempt to identify the individuals who are most likely to commit a crime or become a victim in the future. It uses vast data sets and machine-learning algorithms to assess potential risks. The idea is that by alerting police forces, officers can consider the most appropriate action – tackling crime before it even takes place.

### How does it work?

UK police forces, led by West Midlands Police, are working on a system called the National Data Analytics Solution (NDAS). Based on the records of five million people who have committed crimes or been stopped and searched, it uses artificial intelligence to decipher criminal patterns. So far, it has uncovered 1,400 'predictive indicators' – 30 of which are deemed to be particularly strong. There's a possibility individuals will be given a risk score that can determine how likely a person is to offend. Those at the higher end will be flagged.

### Who will be flagged by the NDAS?

Iain Donnelly, the project's lead, says the system will pick up on a person's history and social interactions, and this could



department called PreCrime uses three psychics to foresee murders taking place. But although they enable the murder rate to be cut to zero, there are inevitable flaws. The same is true of the NDAS.

### But what sort of crimes are being targeted?

At the moment, the NDAS is looking to predict serious violent crime, which means incidents involving a knife or a gun. It will also seek to identify potential victims of crime or modern slavery, but there's nothing to say that the system will stop there. If the system shows itself to be effective, then there's no

telling what other crimes will eventually fall under its radar. The jury is also out on how ethical all of this could prove to be.

### Could it lead to false arrests?

Not at this stage. West Midlands Police says it will not be arresting anyone based on the information thrown up by the NDAS, and that is also set to be the case with the other eight forces involved in the project (among them, the Metropolitan Police and Greater Manchester Police, which means the country's three largest forces have taken an interest). Instead, local health and social workers will be dispatched to visit flagged people in the hope of nipping possible issues in the bud. Potential offenders will be offered counselling while those at risk of becoming victims will be contacted either to warn them or make them aware of how to deal with problems they may end up facing.

### So what's the problem?

The Data Ethics Group at the Alan Turing Institute in London ([www.turing.ac.uk](http://www.turing.ac.uk)) has been working with the Independent Digital Ethics Panel for Policing (IDEP) and has praised attempts to develop an

manifest itself in many ways. Someone with a background of mental-health problems, for instance, may be deemed more likely to be a future violent offender. Likewise, someone who hangs around with other violent offenders, or a person whose behaviour is thought to match that of others who have gone on to commit greater crimes, could be flagged as being of greater risk.

### So far, so *Minority Report*?

The parallels between AI-powered predictive policing and the 2002 Hollywood movie starring Tom Cruise have not gone unnoticed. In the sci-fi film, set in 2054 and based on a short story by Philip K Dick, a police



*Predictive policing will let the cops identify criminals before they commit crimes*



*Minority Report covered the concept of predictive policing and its potential flaws*





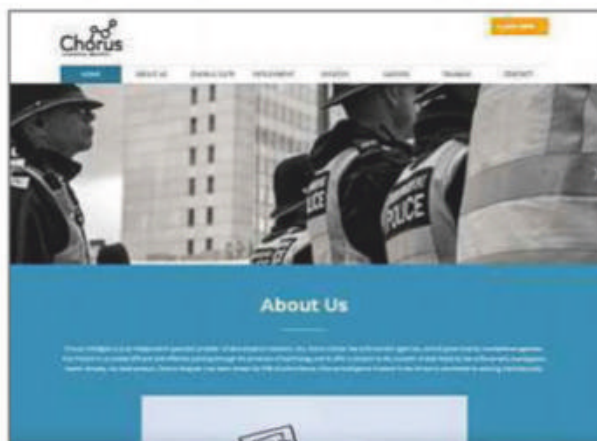
*The Alan Turing Institute is worried about the ethics of using AI predictive policing*

ethically compliant proposal. But it also says the NDAS is “moving law enforcement away from its traditional crime-related role and into wider and deeper aspects of social and public policy”. The institute is worried about inaccurate prediction – false positives or negatives – and it has raised ethical issues around surveillance and autonomy, as well as the “potential reversal of the presumption of innocence”.

## Have the concerns been dismissed?

No. West Midlands Police says it will draw on the advice offered by Turing and IDEPP “to help develop their approach to the ethical governance of the project”. A prototype is set to be produced by March 2019, so it’s likely to fall under greater scrutiny at that point to see if the ethical concerns have been ironed out.

There are worries that certain people are likely to be targeted even if they have never committed an offence, and there is no way that anyone can truly foresee whether or not a person may tread down a slippery path. Young black men, for instance, may be disproportionately stopped and searched by the police, and the datasets would reflect that. Machine



*Chorus Intelligence cleans crime data to try and stop mistakes being made*

## SPOTTING FACES IN A CROWD

As well as investigating technology designed to predict the risk of offending, UK police forces have used facial-recognition tools at high profile public events, including the Notting Hill Carnival, a Six Nations rugby match and the UEFA Champions League final in Cardiff in 2017.

The UK’s data commissioner Elizabeth Denham is currently looking into the technology, in particular at the lack of a national governance framework. There is concern that it is intrusive and that the artificial intelligence had a 98% false-positive rate when tested by The Met. Yet despite worries about a lack of



transparency and even that the system struggles in low-light conditions and with large crowds, automated facial recognition continues to be used.

learning could pick up on such records and reinforce the bias.

## Surely the data just needs ‘cleaning’?

Yes, it does, and there are companies that do this: Chorus Intelligence ([chorusintel.com](http://chorusintel.com)) works with 85% of police departments as well as counter-terrorism and Home Office immigration enforcement units to clean data to evidential standard. But bias tends to find a way through and similar systems in other countries have shown this to be an issue. It points towards the need for ultra-clean data as well as clear training for the police officers recording the information.

## So the UK isn’t the only country pursuing this?

Not at all. Predictive policing systems are gathering pace and many companies have sprung up to provide software. Dating-mining company Palantir ([www.palantir.com](http://www.palantir.com)), for example, worked with the New Orleans Police Department and developed a system that analysed social media, traced people’s ties to gang members and charted criminal histories in order to identify those affiliated with notorious gangs such as the 3NG and the 39ers. Chicago’s police, meanwhile, developed an algorithm-based “heat list” that identified people most likely to be involved in a shooting.

## But what about people with no history?

Focusing on people who have already had a brush with the law, or those who are affiliated with someone else who has, is always going to throw up dangers. There’s a chance police will come to rely too heavily on AI-powered predictive



*Predictive policing failed to reduce the number of people shot in Chicago*

policing and that people unknown to them will slip through the net. Cash-strapped forces may also reduce their presence or concentrate too heavily on particular locations to the detriment of others. In the case of Chicago, it was found that police used the system to target people for arrest rather than to provide social assistance. What’s more, the city’s murder rate pretty much remained the same.

## Could AI-powered policing also affect sentencing?

Maybe, although not in the UK for the foreseeable future. In Pennsylvania, there’s a proposal for a criminal-justice algorithm that predicts the risk someone poses to public safety. Again, there are worries that it will lead to racial bias since nine times more black people are imprisoned in that particular American state but it could potentially lead to someone receiving a higher sentence based on attributes as wide-ranging as age and employment, as well as criminal record. That said, the idea is to keep lower-risk criminals out of jail to reduce costs





# DOWNLOAD ANYTHING

using a

COVER  
FEATURE

# VPN

Don't let unfair geographic restrictions block your access to great stuff on the web. **Robert Irvine** explains how a VPN lets you download, stream and enjoy whatever you want

**Y**ou probably already know about the privacy and security benefits of using a VPN, but here's a quick recap, anyway: they keep you anonymous online, they encrypt your data and they protect you against hackers and other security threats. But VPNs aren't just for serious, sensible purposes; there are lots of fun things you can do with them, too.

Because a VPN lets you pretend that you're in another country, it's the ideal tool for accessing content that's blocked in the UK for geographic, political or licensing reasons. Although browsing with a VPN is noticeably

slower than over a standard connection, being able to circumvent unreasonable restrictions far outweighs that minor inconvenience.

In this feature, we reveal the best things you can only download, stream and access using a VPN, from forbidden videos and unavailable apps to websites that can only be viewed in a specific country. We also show you how to use our favourite free VPN.

Don't forget that VPNs themselves are completely legal to use – in this country, at least – but they should never be used as a shield for conducting illegal activities.





DOWNLOAD AND STREAM TV SHOWS AND FILMS

Full-length movies on YouTube

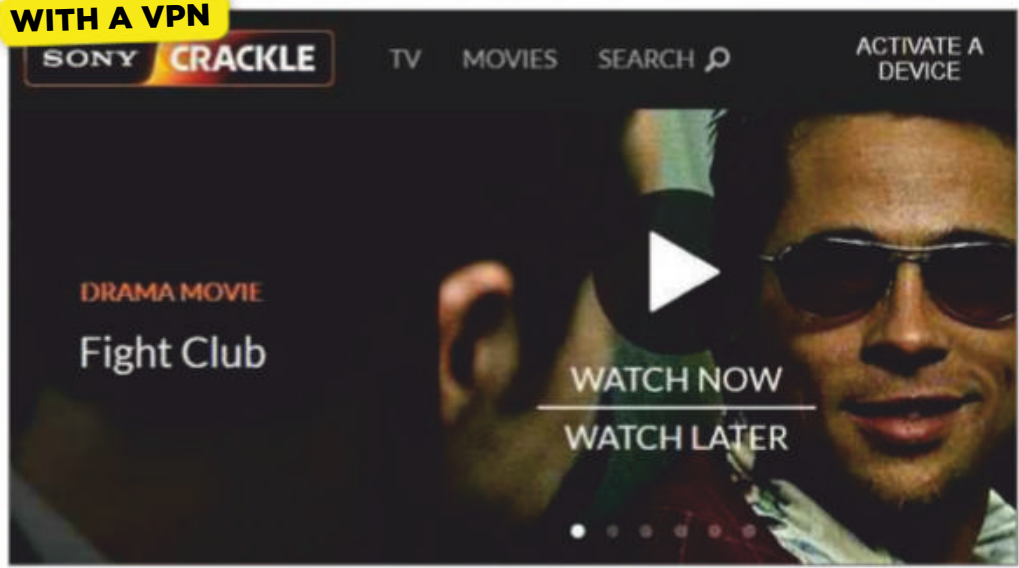
Full-length films on YouTube tend to fall into one of three categories: official releases you have to pay for, unofficial uploads in terrible quality and unknown titles that used to sit on the shelf of your local video shop and no one ever rented. So we were pleasantly surprised last November when YouTube added more than 100 ‘proper’ movies for users to stream for free ([bit.ly/ytfree466](http://bit.ly/ytfree466)), including *Four Weddings and a Funeral*, *The Terminator*, *Legally Blonde*, *Dirty Rotten Scoundrels* and several classic *Pink Panther* flicks. Sadly, clicking these films only displays the message: ‘Video unavailable. The uploader has not made this video available in your country’; nor any country, it seems, aside from the US.

Happily, with a VPN installed, you can bypass this unfair geo-restriction and not only stream *Throw Momma From the Train*, *All Dogs Go to Heaven* and more, but download them, too, using a free tool such as 4K Video Downloader ([bit.ly/4kdownload466](http://bit.ly/4kdownload466)). Just set your VPN to a US server, copy the video link from your browser and choose a file format and quality. Your encrypted connection will then let you download the film to watch offline. On the downside, all the free movies are supported by adverts and some have as many as nine ad breaks interrupting your viewing.

Free entertainment on Sony Crackle

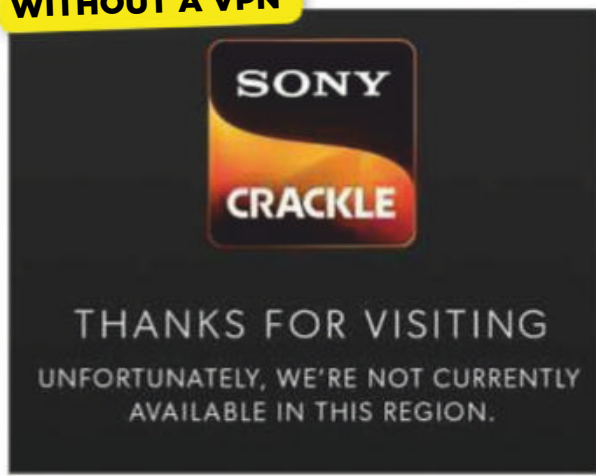
So many streaming services now compete for our custom that you’d assume one that offers free content must be full of rubbish. That certainly isn’t the case with Sony Crackle ([www.crackle.com](http://www.crackle.com)), which is available in America, Australia and (via subscription) in many Latin American countries

WITH A VPN



Your VPN lets you watch free, ad-supported films and TV shows on Sony Crackle

WITHOUT A VPN



(it closed in the UK in 2014), and offers hundreds of high quality Sony films. These include *Fight Club*, *Groundhog Day*, *The Da Vinci Code* and *Saturday Night Fever*, as well as TV shows such as *Married With Children* and *Seinfeld*.

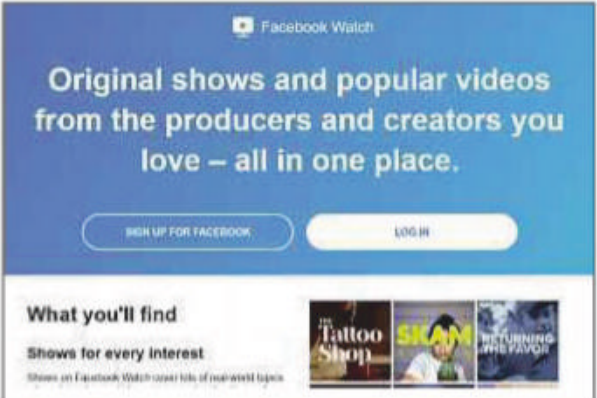
Crackle can be streamed to Android and iOS devices, games consoles and smart TVs, as well as your desktop browser – and it’s completely free.

Go to the website in your browser and you’ll be told that “unfortunately, we’re not available in this region”, but with your VPN set to an American server, you can watch whatever you want on Sony Crackle. Just be prepared for ad breaks every 10-15 minutes, which support the free service.

Streaming video from Facebook Watch

Facebook’s YouTube rival, Watch ([www.facebook.com/watch](http://www.facebook.com/watch)) launched in the UK last August, a year after its US debut and with little of the latter’s quality content. Whereas American Facebook users can now enjoy every episode of *Buffy the Vampire Slayer* (see last issue’s What to Watch Online), video highlights when we visited the British site included ‘How to Make Homemade Butter’ and a dog singing a Whitney Houston song on *Belgium’s Got Talent*.

You can see what’s streaming across the pond by accessing Watch via a US server in your VPN, although you may need to create a new account with the social network (Facebook knows exactly who you are and where you live!). It’s also possible to download videos from Watch by copying their links to Savefrom.net ([en.savefrom.net](http://en.savefrom.net)), although this only works with content uploaded by users, not (presumably DRM-protected) official series.

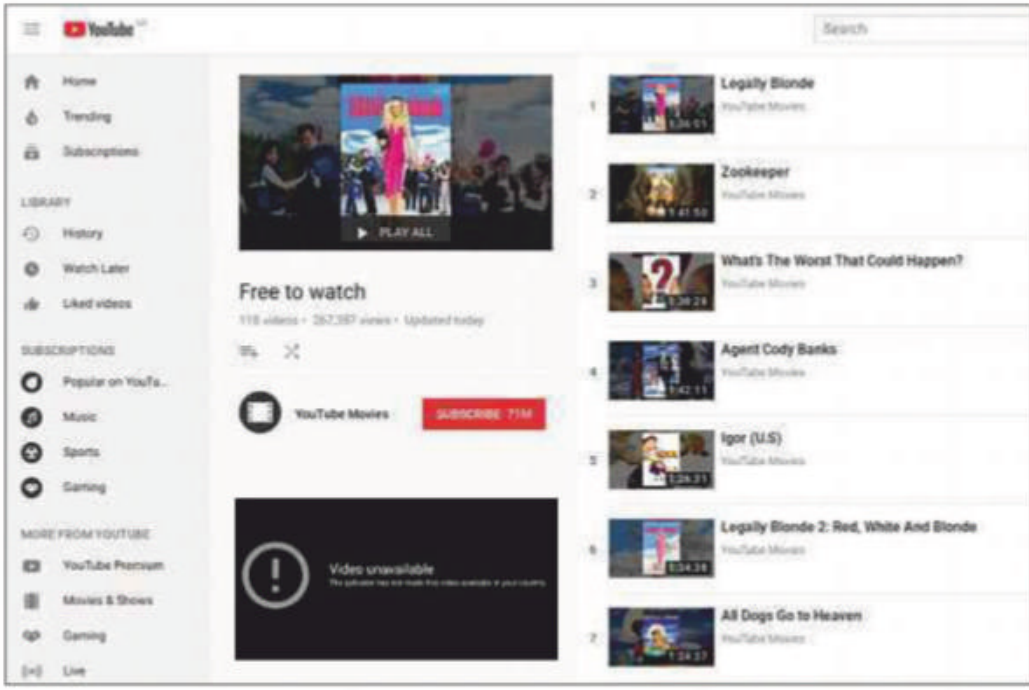


The US version of Facebook Watch offers a better selection of streaming videos

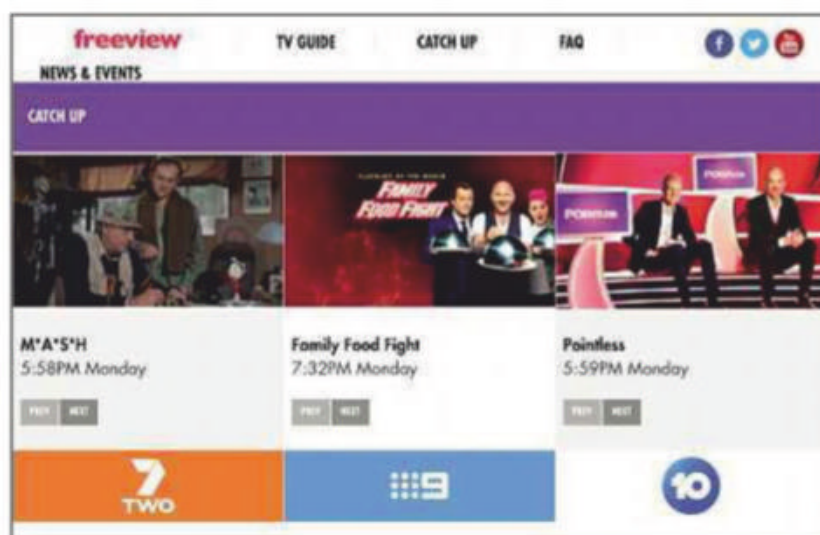
Live TV shows on Australian channels

Most people use a VPN to access American TV shows, but if yours offers servers in Australia (most paid-for VPNs do, but free ones don’t), you can discover what’s on Down Under. Most Australian TV channels are streamed online for free, but only to Aussies; a

YouTube’s free full-length films are unavailable in the UK – unless you use a VPN







**Watch the Australian take on Pointless by going Down Under with a VPN**

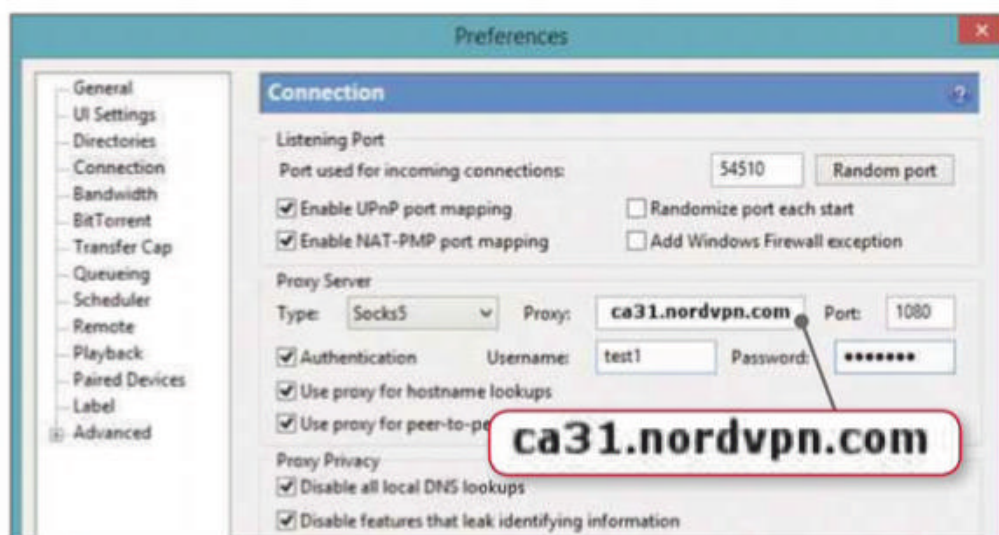
VPN lets us Poms tune in, too. Visit the ABC TV website ([www.abc.net.au/tv](http://www.abc.net.au/tv)) for news and entertainment channels from the Australian equivalent of the BBC; 7plus ([www.7plus.com.au](http://www.7plus.com.au)) for films, documentaries, reality shows and more; and 9Now ([www.9now.com.au](http://www.9now.com.au)) for content from Australia's most popular TV network. There's also an Australian version of Freeview ([www.freeview.com.au](http://www.freeview.com.au)) that brings together all the free channels in one place. You'll be surprised how many UK shows, US imports and Aussie versions of British formats appear across the channels, as well as plenty of original Australian programmes. *Neighbours* is now on 10 Peach ([tenplay.com.au](http://tenplay.com.au)), in case you're wondering.

### Torrent files anonymously

BitTorrent is best-known as a way to download music, TV shows and films,

but torrents also have plenty of legal uses, including peer-to-peer sharing of massive files, downloading Linux distros, getting huge updates for games and grabbing non-copyrighted content from the Internet Archive ([archive.org](http://archive.org)). The downside is that torrents don't shield your IP address or details of the content you share, and downloads are monitored by torrent trackers that over time can amass plenty of information about you.

You can protect your anonymity while torrenting by using a VPN – however, there are some caveats. Some services, especially free ones, leak your data and expose your IP address, while others – such as those based in Five Eyes countries – willingly pass info about your activities to the authorities. Certain VPNs forbid torrenting outright, because of the strain the heavy traffic places on their servers, and bear in mind, too, that torrent files can be very



**NordVPN encourages torrent use and even provides step-by-step instructions**

large, so a free VPN with a tight monthly limit (TunnelBear gives you only 500MB) won't be much use.

For this reason, if you hope to do lots of anonymous torrenting, you should ensure that the VPN allows it before you sign up. Web User favourites NordVPN ([nordvpn.com](http://nordvpn.com)), ExpressVPN ([www.expressvpn.com](http://www.expressvpn.com)) and Windscribe ([windscribe.com](http://windscribe.com)) all give torrents the thumbs-up. NordVPN proudly proclaims itself the 'Best VPN for P2P', and even provides step-by-step instructions for configuring BitTorrent clients, while Windscribe usefully highlights servers that shouldn't be used for peer-to-peer file sharing – all others are fine.

Another advantage to using a VPN is that you can access torrent sites that ISPs block in the UK, such as The Pirate Bay. Indeed, a VPN will even prevent your ISP from detecting that you're torrenting at all.

## DOWNLOAD BLOCKED AND UNAVAILABLE CONTENT

### Mobile apps unavailable in the UK

Some new apps, and new features in existing apps, aren't made available in the UK at the same time as other countries – the US usually gets them first but India's often ahead of us in the

queue, too. Recent examples include the new Live Albums feature in Google Photos, which automatically creates albums featuring specific people or pets; Facebook's Messenger Kids app, which lets parents control their children's text

and video chats; YouTube Go, the 'lite' version of the video-streaming service; and the similarly cut-down Twitter Lite, which is "available in 46 countries", but not this one.

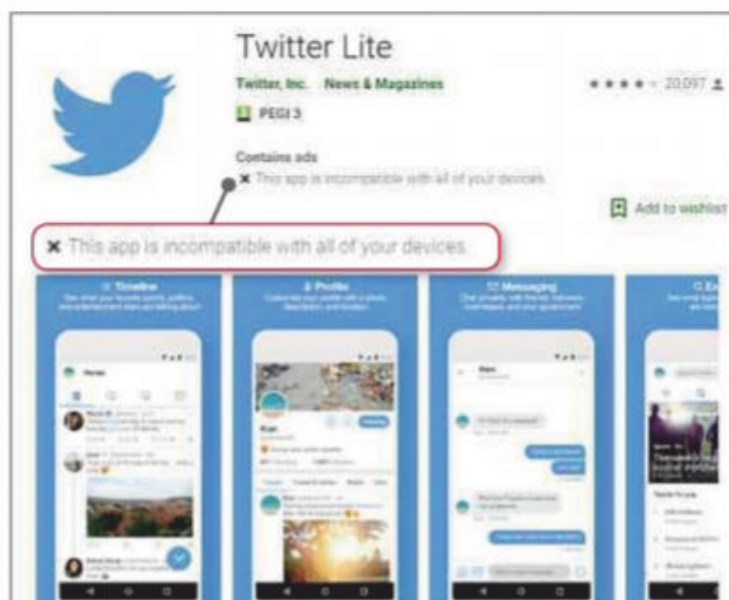
These apps won't show up when you search for them in the UK Google Play or Apple App Stores, and if you follow a direct link to one you'll be told, rather snottily, that it's "incompatible with all your devices" – as if you're to blame! You can download these forbidden apps, and access withheld features, by using a desktop or mobile VPN to fool the app store into

thinking you're in a compatible country – just choose a VPN server in the US, India or wherever. If you already have the app installed, and want to try the geo-restricted new option, uninstall it and re-download it through your VPN.

### Windows apps that you can't get in the UK

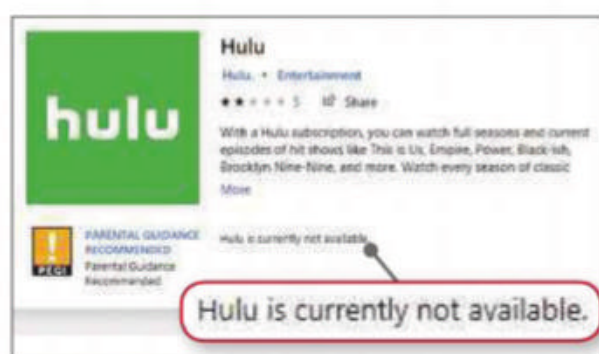
Microsoft hasn't persuaded us to completely abandon traditional software in favour of desktop apps, but there are plenty of good ones available for Windows 10, spanning everything from entertainment and shopping to security and system tools. Occasionally, however, you'll read about an app that isn't available from the UK Microsoft Store, and while switching to the US one may appear to solve the problem, when you click Get you'll be stopped in your tracks. So much for 'universal' apps!

Setting your VPN to a US server allows you to install Windows apps from



**Use your VPN to install 'incompatible' Android apps such as Twitter Lite from the Google Play store**





**Get Windows 10 apps restricted to the US by accessing the store with a VPN**

the US store, which aren't supposed to be available to UK users. Bear in mind that if you download an app for a US subscription service such as Pandora, Hulu or HBO Now, you'll also need to create a fake US account and provide payment details. See our boxout on page 45 for more information.

## The latest updates for your Android device

When Google releases a new version of Android, its own devices – such as its Pixel phones – are invariably first in line, while everyone else has to wait for their handset's manufacturer to issue the update. The new Android version is then gradually rolled out across the globe, with some countries receiving it well before others. Recent figures reveal that most Android devices are still running Marshmallow (version 6) or Nougat (7), but if you're tired of waiting for the update to 8 (Oreo) or want to try for Pie, there's a chance that a VPN can help.

Install a VPN app on your phone and choose a server in a country that's likely to be ahead of the UK for Android updates, such as the US, Canada, India, Japan or Taiwan. Go to Settings, 'About phone' and tap 'System updates' to check if a change in location triggers the download you desire.

## HOW WE DOWNLOADED

To test our tips for downloading forbidden videos, streaming geo-restricted content and accessing blocked websites, we used the free VPN Windscribe ([windscribe.com](http://windscribe.com)). Not only did this save us a few bob after an expensive Christmas, but it's arguably the only free VPN worth bothering with.

Whereas similar free tools limit the amount of data you can use and only provide a few servers, Windscribe gives you a generous 10GB of bandwidth each month and access to fast servers in 11 countries. Unusually

for a free VPN, that includes the US (East, West and Central) and Windscribe's new Build A Plan option lets you add another location for just \$1 (80p) per month, including Windflix US for streaming US Netflix.

We used the lightweight Windscribe app for Windows (see our Mini Workshop, below), but it's also available for Mac OS, Linux, Android and iOS, and as a Chrome and Firefox extension. If you need more data and servers, you can upgrade to the Pro version for as little as \$4.08 (£3.22) per month.

### System update available

Android 9 - Pie

Powered by AI to make your smartphone smarter, simpler, and tailored to you.

Your device will be updated to Android 9 - Pie.  
Learn more at [android.com/pie](http://android.com/pie).

New features include:

- Adaptive battery and brightness
- Simpler ways to navigate your phone
- Recommended apps and actions based on your context

Downloading updates over a mobile network or while roaming may cause additional charges.

Update size: 1173.0 MB

**Android Pie has already rolled out to Nokia devices in India but not in the UK**

You can also try this trick on phones that run custom versions of Android, such as OxygenOS on OnePlus phones.

## Games that haven't yet been released in the UK

Games that are expected to prove popular often receive a staggered release across the world to prevent servers from being knocked offline by demand. For example, last November, Fallout 76 was launched at one minute past midnight in most countries, which meant that gamers in Sydney could play it 16 hours before their counterparts in New York. Similarly, Pokémon Go – the most-downloaded mobile game of 2016 – was released in the US, Australia and Germany well before being 'rolled out' to the rest of Europe.

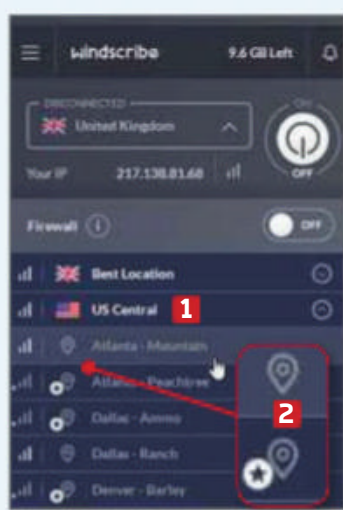
If you're unwilling to wait hours, days or even weeks to get stuck into an exciting new game, use your desktop or mobile VPN to jump the queue by pretending to be in an early-bird country. Check the game developer's website and social feeds to see if they've posted a 'rollout schedule', as Bethesda did with Fallout 76.



## MINI WORKSHOP | Unblock US content for free using Windscribe

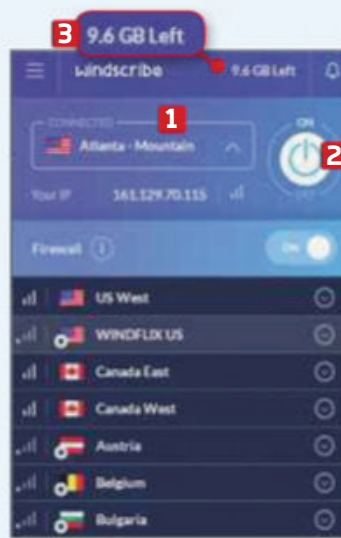
**1** Register with Windscribe (if you don't, you only get 2GB of data each month), then sign in and select a country from the drop-down menu.

**1** The three US entries have further locations listed within them – choose one without a star next to it, **2** because those are only available in Windscribe Pro.



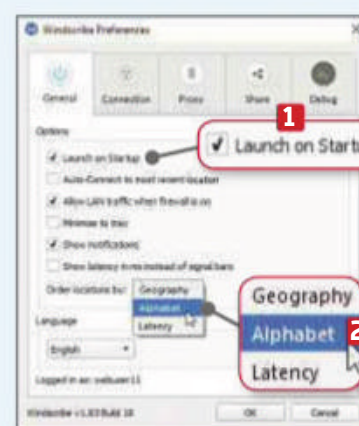
**2** As soon as you click a server, you'll automatically be connected and your new IP address will make it look like you're in that location. **1**

To disconnect, click the On/Off button to the right of the server menu. **2** Windscribe also tells you how much of your monthly data allowance remains. **3**



**3** To further configure Windscribe, click the menu button in the top-left corner and choose Preferences.

On the General tab, you can choose to launch the VPN on startup, **1** so your connection is always encrypted, and sort the list of servers geographically, alphabetically or by speed. **2**







**Why wait for games when you can use a VPN to get them early from abroad?**

As an added bonus, buying games and downloadable content from another country may also save you money, especially considering the current poor value of the pound.

### Content on websites blocked by GDPR

The introduction of GDPR last May was ostensibly a good thing for web users, forcing companies to be more transparent about what they do with our data and reducing the amount of junk email we receive, but the new rules brought two annoying consequences. First, virtually every website you visit now nags you to review its privacy policy and allow certain cookies (or at least it should do, under GDPR); and second, some US sites either can't (for business reasons) or won't (for strop

ped versions to EU visitors.

You can beat both these annoyances by using your VPN to pretend you're not in the EU, at least until Brexit makes that fiction a reality. Choose a US server and not only will you not be pestered about privacy policies, but you'll also be able to access all content on American sites unhindered. Although this could leave you open to unregulated data gathering, the anonymity granted by your VPN will protect you against that, too.

### Content on UK sites while abroad

The most popular reason for using a VPN in the UK is to access content that's restricted to the US, but it's just as useful to have one when you travel abroad. You'll be surprised how many British sites aren't available from overseas, while global online stores will

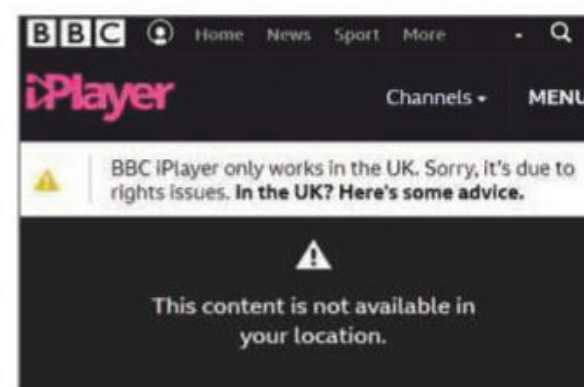
### Los Angeles Times

Unfortunately, our website is currently unavailable in most European countries. We are engaged on the issue and committed to looking at options that support our full range of digital offerings to the EU market. We continue to identify technical compliance solutions that will provide all readers with our award-winning journalism.

**Don't let GDPR restrict your international browsing - use a VPN to unblock sites**

ones) comply with GDPR, so they've blocked access from the EU altogether. The *Los Angeles Times*, *New York Daily News* and *Chicago Tribune* are three notable examples, while other sites now offer

redirect you to local versions and streaming services will limit you to the library for that region. In countries where the internet is censored, such as China, Vietnam and Russia, you may not even be able to access Facebook, Twitter and certain Google tools. Fortunately, if you're feeling homesick, you can use your VPN to access your favourite British sites and services as if you were back in Blighty. Just choose a UK server from the options available. Note that BBC iPlayer now makes you sign in to stream and download shows, but your account doesn't disclose your real location - when we logged in with our VPN set to a US server, it assumed we were outside the UK.



**Our VPN worked so well that BBC iPlayer thought we were outside the UK**

## DOWNLOAD AND COMMUNICATE SECURELY

### Download securely on public Wi-Fi

Common sense dictates that you should always be careful when browsing and downloading over a public Wi-Fi hotspot. If a hacker gets between you and the connection point, they can not only access your sensitive information, including emails, passwords and card details, but easily install infected software on your laptop or mobile device. Some hackers even attack the hotspot itself, so that a pop-up window appears offering you a free upgrade to a popular program, but which actually installs malware when clicked.

Using a VPN to read the news, watch TV or check Twitter seems like overkill,



**This man may look stupid but he's smart enough to use a VPN on public Wi-Fi**

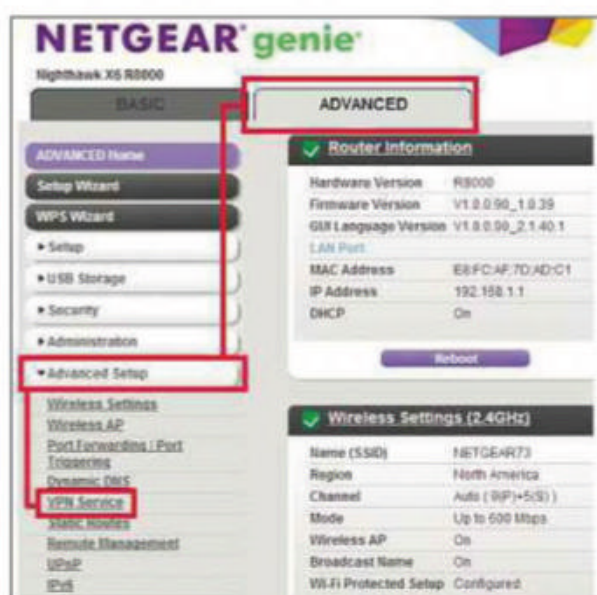
but if you're planning to download software, install updates or receive sensitive files while out and about,

then a VPN is essential. It lets you download securely and anonymously, and even if a hacker manages to intercept your connection, all your data will be encrypted.

### Access files on your home network

You undoubtedly have lots of important files stored on your home PC, which you may sometimes need to open, view, edit, print or delete when you're away. You can achieve this by setting up your home router to allow remote access to your local network, but for security reasons it's wise to combine the remote connection with a VPN, so that no-one can intercept and steal your files.





Check to see if your router offers a built-in VPN for accessing your files remotely

Some high-end routers feature built-in VPN servers, which you can usually activate via the Advanced settings in their web interfaces: to access this, type 192.168.0.1 or 192.168.1.1 into your browser's address bar, press Enter and sign in with your username and password. If yours doesn't, you can set up port forwarding on the router to send incoming network traffic to a computer running VPN software. The downside is that this device will need to be constantly on, but all your data will be encrypted so that files you access remotely are unhackable. Check the help pages for both your router and your VPN to find out how to set up port forwarding for that particular device and service.

## Chat more privately and cheaply on Skype

There are lots of good reasons to use a VPN when you're chatting over the internet using Skype. Not only does it encrypt your voice and video calls – and any files you share – against eavesdroppers, but it also lets you use the VoIP service in countries where it's blocked (such as the United Arab Emirates), and even improves the clarity

## FAKE YOUR ACCOUNT INFO

Some services accessed via a VPN require you to register to use them, and you may need more than an email address and password. If signing up requires details such as a postal address and phone number, you can copy convincing-looking data for the country you're pretending to be in from the fantastic Fake Name Generator ([www.fakenamegenerator.com](http://www.fakenamegenerator.com)). For US sites, choose American from the 'Name set' menu and United States as the country, to get a full fake profile including address, zip code, phone number and disposable email address.

One problem you might encounter when signing up overseas is entering acceptable payment information. Sharing your real debit or credit-card details might give the game away, while PayPal officially forbids the use

Protects your passwords, payments, and privacy from cyber criminals.

Blur secures ALL the personal information you put online - making it safe, fast, and easy to login and checkout from your browser, phone, or tablet.

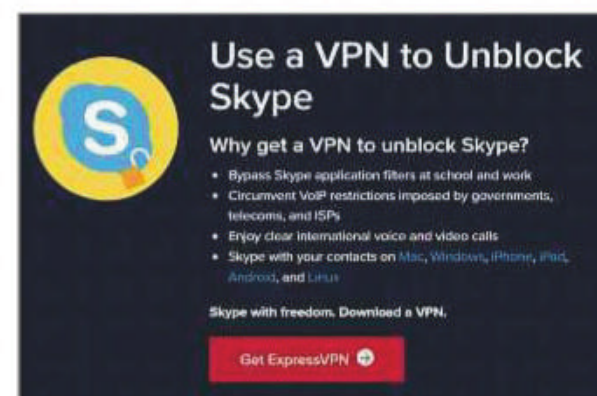


of VPNs to access its services.

You can get around this problem by using Blur ([dnt.abine.com](http://dnt.abine.com)), which lets you create secure virtual cards while masking your real details, so you can pay for subscriptions without arousing suspicion.



and quality of your communication. Skype itself says that "we recommend the use of VPNs to separate voice from data traffic, and as part of an overall Quality of Service optimisation" ([bit.ly/skype466](http://bit.ly/skype466)), while ExpressVPN has an article on its website entitled 'Use a VPN to Unblock Skype' ([bit.ly/express466](http://bit.ly/express466)).



Combine a VPN with Skype for clearer, cheaper and unrestricted internet calls

Best of all, combining a VPN with Skype can save you money when you call someone in another country. Rather than paying steep international rates, you can choose a VPN server in the same region as the person you want to chat to and reduce the cost of your Skype credit to a local rate. ■

## NEXT ISSUE

on sale Wednesday 23 January 2019

# Don't Bin Your... OLD LAPTOP, PHONE & TABLET

'Upcycle' your tech in 2019 with amazing new uses for dusty old devices



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# Best apps to clean up your photos

Photos are one of the biggest space-stealers on any smartphone, with duplicate images and blurry snapshots taking up vital storage. **Steve Clark** cleans up his act with the best free photo cleaners for Android



**AVG Cleaner** | [bit.ly/avgcleaner466](http://bit.ly/avgcleaner466) | ★★★★★  
FEATURES ★★★★★ PERFORMANCE ★★★★★ EASE OF USE ★★★★★

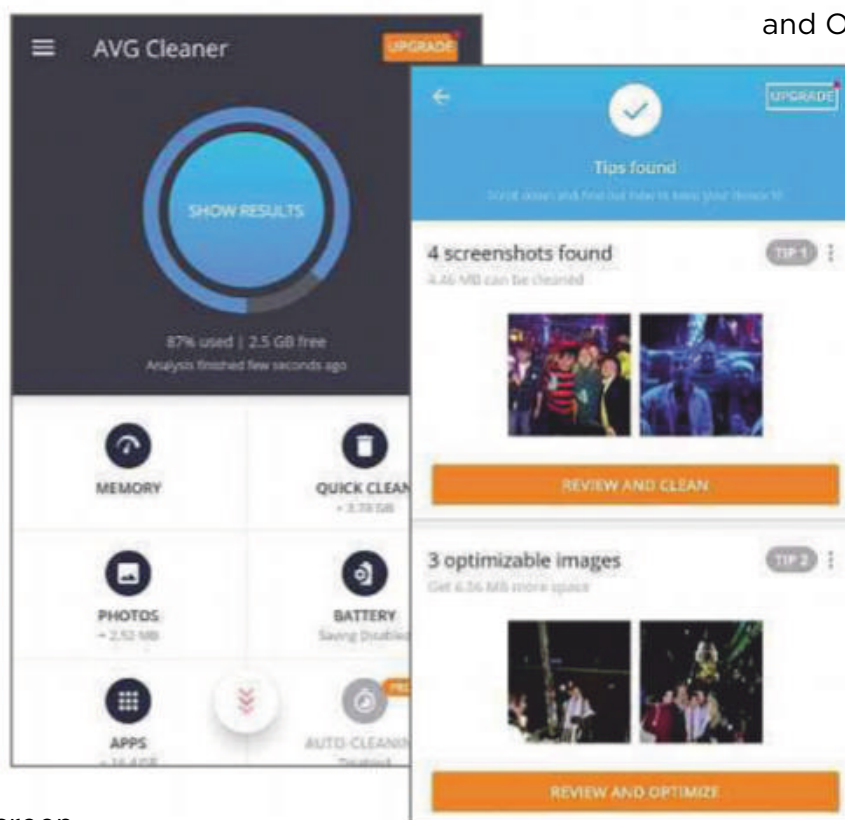
WebUser  
GOLD  
AWARD

## What we liked:

AVG Cleaner, from security specialist AVG Technologies, is more than just a photo-management app; it delivers a full clean-up operation that scans your phone for every finicky file taking up too much space.

When you first run the app, it quickly analyses your gallery and searches for 'unwanted photos'. Once that's done, press the pulsing Show Results button to delete unnecessary images, boost memory-sapping apps and remove all those games you never bother to play. The quick-access boxes on the home screen trigger specific cleaning actions, including photo clean-up – so you can just jump in and take a look at where you can save even more space.

Navigation is child's play, marred only by large banner ads between each section that are too easily tapped by mistake: scroll down to see screenshots, duplicates and bad, old or optimisable images, all of which can be reviewed and cleaned with a tap. One of AVG Cleaner's quirkier features is 'Photos for



Review', which pulls together pictures that it deems below par. You can decide whether you want to keep them or not by swiping left or right. The built-in Smart Photo Cleaner then learns from your choices, promising better recommendations in future.

Unless you're tapping the screen with your eyes closed, it's nigh-on impossible to accidentally delete a precious photo. The app repeatedly prompts you to connect your Dropbox, Google Drive

and OneDrive accounts, and stores original photos there before commencing space-saving compressions or deletions.

## How it can be improved:

We'd like to see more cloud-storage services added, outside the 'big three'. To the careless eye, ad buttons appear to be part of the app, which seems a tad sneaky, but at least we were only subjected to a few upgrade nag-screens. Be aware that you need to grant additional usage permissions for tools such as the ultra-deep clean. This isn't necessarily a problem, but we'd rather AVG explained more clearly what it needs and why.

## OUR VERDICT

No app is faultless but AVG Cleaner comes close. It's a delight to use and comes packed full of features that go beyond merely tidying up your photos folder. The ads are a bit annoying but a fair price to pay for free apps. We'd love a dedicated photo-management spin-off.



## Nox Cleaner | [bit.ly/nox466](http://bit.ly/nox466) | ★★★★★☆

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

WebUser  
SILVER  
AWARD

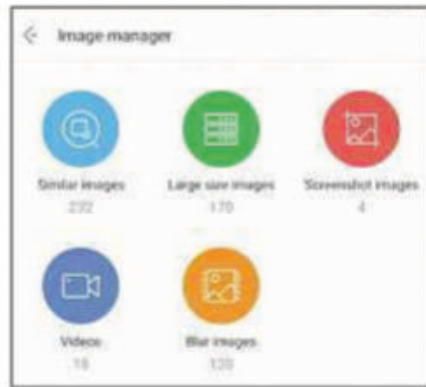
### What we liked:

Three taps is all it takes for Nox Cleaner to detox your smartphone: select, execute, confirm. Repeat this until you've whittled down all those unnecessary images and videos cluttering up your device.

Like AVG Cleaner, this is a full optimisation app but the Image Manager, concealed in the Common Features section, is particularly effective. After running a scan, it lets you explore five types of images: similar, screenshots, videos and blurred images can all be deleted; while large images can be compressed to save space.

However, the app's not quite as clever when it comes to spotting similarities. We found that some images declared 'similar' were entirely different to supposed matches, and sometimes had no counterpart at all.

We particularly liked the 'Specified clean' tool. Select a messenger app (WhatsApp, Line and WeChat are



supported) to manage and clean the app's data. This includes photos and videos, helpfully separated into sent and received files.

### How it can be improved:

This excellent Image Manager should be front and centre on the home screen, not tucked out of sight. Don't be fooled by Nox Cleaner's 'advert-less' claims: ads appear on the 'Clean successful' screen, although they are non-invasive. It's a shame you can't 'fix' blurry photos instead of just deleting them.

### OUR VERDICT

Hiding its star attraction away is the only real design flaw in an otherwise attractive and encouragingly speedy app. The 'Specified clean' will come in handy if you're forever sharing throwaway or backed-up media with friends and family.

## Remo Duplicate Photos Remover | [bit.ly/remo466](http://bit.ly/remo466) | ★★★★★☆

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

WebUser  
BRONZE  
AWARD

### What we liked:

This clever app scans all your photos and spots duplicate and related images.

Depending on the number of saved photos, the initial scan may take a few minutes, but once complete, you can swipe between two lists: Exact and Similar.

Results are grouped into manageable Sets. Using the tick boxes, it's easy to earmark photos for deletion and control what remains. Alternatively, tap a photo to enlarge it, view metadata or trash it.

Remo also offers a safety net, so you don't accidentally remove the wrong photo. Select your favourite snaps and press the Eye icon to exclude them from any future scans.

In Settings, you can tweak the Matching Level – 100% being an exact match. We found the default setting of 50% was impressively accurate at



catching most similar-looking snapshots.

### How it can be improved:

Beyond searching for similar and duplicate images, there's not much going on – you can't even back up images in the cloud before tinkering with them. And don't tap the Home button: it takes you to a

splash screen with no way of returning to your photos list unless you scan your phone all over again.

### OUR VERDICT

Remo does one thing incredibly well, and its results are bang-on and easy to use. However, additional, photo-focused features would make it a more attractive tool.

## BEST OF THE REST

### Duplicate Photos Fixer

[bit.ly/duplicate466](http://bit.ly/duplicate466)

Duplicate Photo Fixer is ideal for quick clean-ups but it's limited when compared to rival apps. Start by selecting a specific folder, tick only camera images or – our preferred method – perform a full scan. This won't take too long and it comprehensively found images that even our top-performing apps missed. In the Settings menu, you can determine whether to search for exact or similar pictures but, frustratingly, not both.



### iSweep

[bit.ly/isweep466](http://bit.ly/isweep466)

Simplicity, so they say, is the ultimate sophistication. Which would make iSweep the most elegant app on our list. It doesn't even scan your images for duplicates; all it does is let you clean out your entire camera roll by swiping right (to keep) or left (to trash). Elsewhere, you can view images ordered by month, which offers a level of control over the images you see and swipe.



### Files by Google

[bit.ly/files466](http://bit.ly/files466)

We're usually fans of Google products, but this photo clean-up experience feels half-hearted. Mind you, its simplicity makes it a pleasure to use. Choose to free up space and the app scans your phone for duplicated images already backed up in the cloud, or those in messenger apps. It's also handy for moving images from phone storage to SD card, but otherwise it's in no way a comprehensive clean-up tool.





# Make room for massive data in 2019

With downloads getting bigger, **Wayne Williams** explains how to ensure you have enough space on your devices and don't exceed your monthly data limit

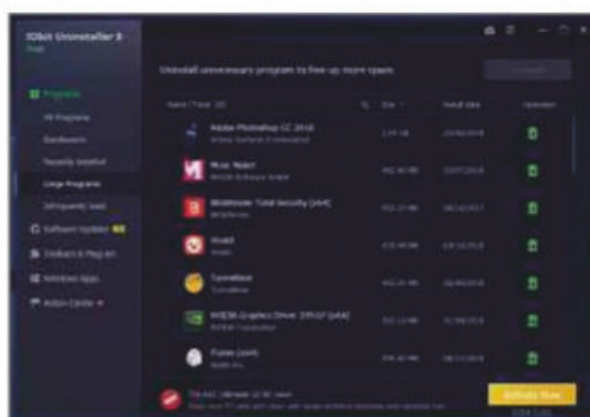
## Free up drive space on your PC

If you fail to keep on top of your PC maintenance, your hard drive(s) can easily run out of space. There are lots of ways to free up room, starting with the built-in Disk Cleanup and Storage Sense features. To use Disk Cleanup, type **cleanup** into the Windows search box, launch the tool and select the drive to clean and the areas to target.

To use Storage Sense in Windows 10, type **storage** in the Windows search box and press Enter. You can enable Storage Sense here, and have Windows automatically free up space by periodically removing temporary files and emptying the Recycle Bin. Click the 'Change how we free up space automatically' link to manage the settings and choose how often the tool should run. You can also click 'Free up space now' to start a manual clean. You'll be presented with a list of items to be removed and can select the ones you wish to include.



*Windows 10's Storage Sense tool clears space on your PC automatically*



*Uninstall large programs you no longer use to make space for new ones*

You can free up a lot of space by uninstalling old and unused software. It's worth using the free IObit Uninstaller ([bit.ly/uninstall466](http://bit.ly/uninstall466)) for this because it can remove programs, Windows apps and browser toolbars, and clear up junk that the Windows uninstaller leaves behind. You can order the list of installed programs by largest or most recent, so you can quickly see the biggest space hogs and oldest software, and get rid of them.

## Compress files before downloading

Many files you download from the web come packaged in Zip or RAR format to reduce their size, but others are only available in their bloated full versions. Thankfully, you can use CloudConvert



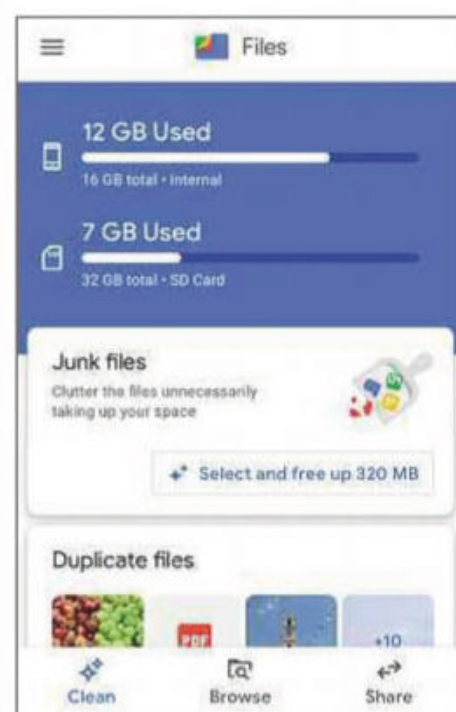
*CloudConvert lets you compress online files to reduce their download size*

([cloudconvert.com](http://cloudconvert.com)) to compress files online before downloading them. On the website, or in the CloudConvert iOS app ([bit.ly/ccios466](http://bit.ly/ccios466)), click the arrow next to Select Files and choose 'Add from URL'. Paste the download link address, then click the Select Format box and choose the compression type you require - options include 7z (7-Zip's proprietary format), RAR, TAR and ZIP. Click the Start Conversion button and wait. You can save the file to your device or to cloud-storage services including Dropbox, OneDrive or Google Drive. The free version of CloudConvert limits you to 25 conversion minutes a day, and a maximum file size of 1GB.

## Free up space on your phone

If you're running out of space on your Android device, you can use Files from Google ([files.google.com](http://files.google.com)) to clear away the clutter. This recently updated app can remove unused apps, large or duplicate files and low-resolution videos. As a bonus, the app also lets you securely transfer files to nearby friends without using your data allowance, and back up files to the cloud.

On an iPhone or iPad, go into Settings, General, iPhone



*Files from Google makes it easy to remove junk from an Android device*





## Make room for data

Music Quality. For streaming, Automatic (Recommended) is the default, but you can opt for Low or Normal quality. The Download setting lets you switch between Normal (Recommended) and High or Very High. Make sure the Download Using Cellular setting is switched off unless you have an unlimited mobile plan.

### Set alerts for data usage

Your mobile network provider should let you check to see how much of your data plan you've used and have remaining at any time, and may alert you if you get too close to using it all. If it doesn't, or you need greater control over the notifications you receive, install My Data Manager ([www.mydatamanagerapp.com](http://www.mydatamanagerapp.com)) on your Android or iOS device. This free app lets you set custom usage alarms, as well as showing you which

apps consume the most data. It monitors how many call minutes and text messages you have left, and the iPhone version comes with a free VPN.

### Limit data used by smart-home devices

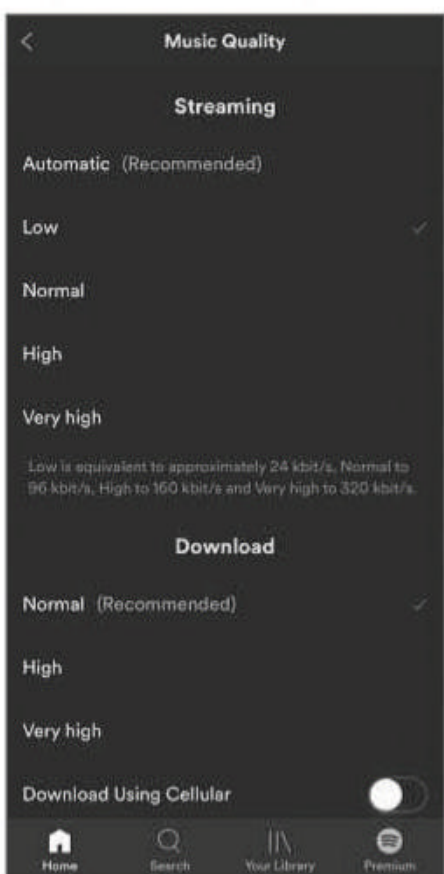
Security cameras protect your property and belongings, but they really chew through your data if the footage gets uploaded to the cloud. You can reduce this by only recording when necessary – when you're not at home or when motion is detected. Dropping the resolution is also worth considering, provided the video is still clear enough to make out faces and other distinguishing features.

Other smart devices may use more data than you might expect so it's important to

keep an eye on these. A lot of modern routers provide tools that allow you to see how much data your various connected devices are using, giving you the chance to take action to reduce this in the device's app (if possible). If your router doesn't offer this feature, consider buying a newer one that does.



*Some routers show exactly how much data each device is using*



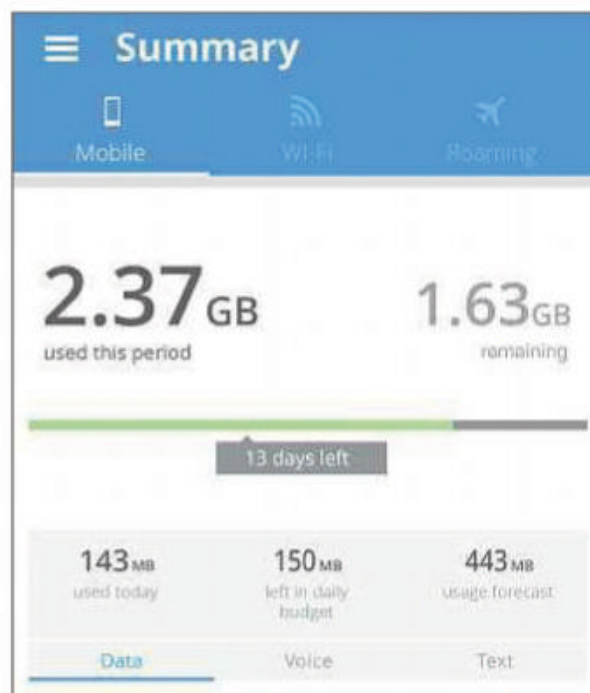
*Reduce the quality of Spotify streaming to stay in your data limit*

Storage and free up content there.

Alternatively, there's iMyFone Umate ([bit.ly/imyfone466](http://bit.ly/imyfone466)).

Install the software on your PC or Mac, connect your iPhone and 'trust' the connection. It will scan your device and tell you how much space can be reclaimed.

There's a free trial available, or you can pay \$19.95 (around £15) for a lifetime licence.



*My Data Manager alerts you when you get near your monthly allowance*

### Reduce the streaming quality of apps

When you're streaming or downloading videos or music on the go, opting for the highest quality available seriously eats into your mobile allowance and available storage. Dropping the quality can make a huge difference to the size, and you probably won't even notice the difference when viewing videos on a smaller screen.

Netflix users can tap the More button in the app, go to App Settings and adjust the video quality there (you can also delete previous downloads). In iPlayer, open the Menu and tap the cog icon. Make sure Higher Quality Downloads is off.

Spotify users can adjust the audio bitrate by tapping the cog and choosing

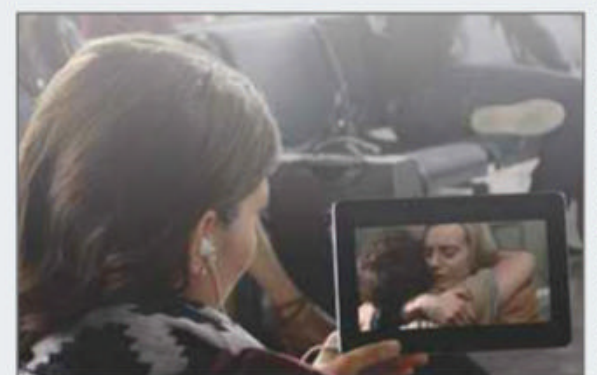
## THE AVERAGE SIZE OF FILES IN 2019

Music-streaming services usually offer a choice of bitrates to help you keep your data usage to the optimum level, but it's useful to know exactly how much data that means. Spotify's Low, 24 kilobits-per-second (kbit/s) streaming rate works out to around 10.8 megabytes per hour (MB/h), while the Normal rate of 96 kbit/s is 43.2 MB/h. The Very High 320 kbit/s rate will eat up 144 MB/h.

Photos on your smartphone are likely to clock in at around 4MB each, although some can be up to 10MB or more. Videos take up the most space. 720p quality at 30fps will consume 60 megabytes a minute (MB/min), 1080p at 30fps will take up 130 MB/

min and 4K at 30fps a whopping 350 MB/min.

Downloads from video-on-demand services vary in size, but on Netflix, for example, shows are 0.7GB per hour for standard definition, around 3GB per hour for 1080p streaming and 7GB per hour for 4K quality.





# Spot and avoid dark patterns

Ever get the feeling you're being prodded, tricked and aggressively persuaded into performing certain actions online? **Steve Clark** investigates how dark patterns manipulate our web experience



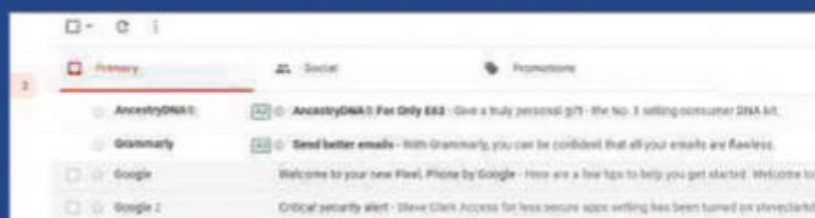
## WHAT ARE DARK PATTERNS?

Dark patterns are design or interface tricks used by apps and websites to push you towards making certain choices. The term was coined by British designer Harry Brignull ([www.brignull.com](http://www.brignull.com)), who describes them as “a user interface that has been carefully crafted to trick users into doing things, such as buying insurance with their purchase or signing up for recurring bills”.

These tricks are how companies force you to do something you may

not really want to do – hand over your email address, for example, or make in-app purchases in a free mobile game.

You don't have to go far to see dark patterns in action. For example, open



*It's time to play 'Email or Advert?' in your Gmail inbox*

your Gmail account. Are those a couple of unread messages in your inbox? Or are they just ads designed to trick the unguarded web user into opening them? Double points if the 'sender' uses the traditional 'Re:'

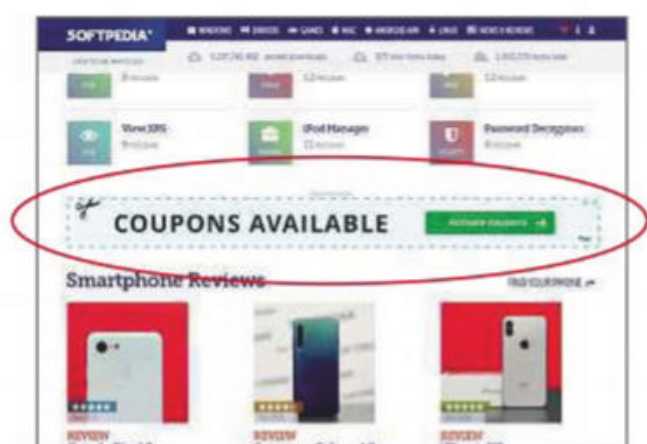
subject line to fool you into thinking this is in response to an email you've sent.

And that's just the low end of this duplicitous practice.

## How do dark patterns work?

Dark patterns are deployed in a variety of ways – from toying with our expectations when we use a website or app to baffling us into submission.

Probably the most famous dark pattern you'll run into is the 'disguised ad'. We've all been tricked by clickbait articles masquerading as news stories



*Disguised ads are wolves in sheep's clothing*

on legitimate sites, but even big names aren't above engaging in this deception. For example, make a purchase on Argos and your confirmation page offers you money off your next order. It looks real, like it's an offer from Argos, but if you look closer you'll see that it's actually a message from a partner website that charges you a monthly subscription for the privilege of receiving this offer.

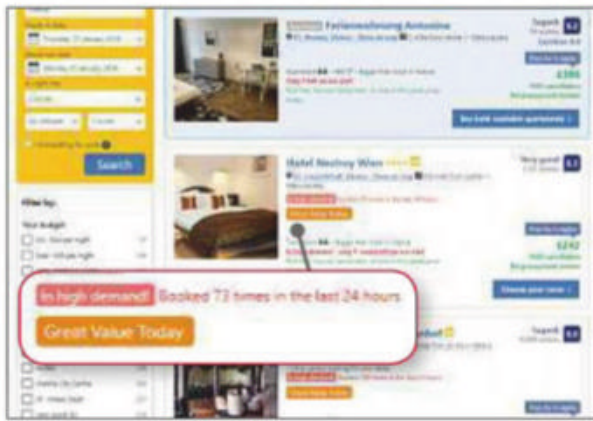
Then there's the phantom 'X'. When you want to close an unwanted window in your browser, you'll naturally look for the 'X' in the top-right corner. Malicious designers know this, so they foil your expectations by hiding the 'X' elsewhere. The truly devious dark wizards add a second 'X' that, once clicked, opens a new window or takes you to a new site. This means more ad revenue for them and more ads seen by you.

Alternatively, think of a time when you've declined an offer on a website:

typically, signing up means clicking a big, colourful button, while the 'skip this step' or 'not now' option is in faint, plain text. Some sites even include a line such as 'No, I do not want to know the secrets of earning more and living longer' – a tactic known as 'confirmshaming' ([bit.ly/confirm466](http://bit.ly/confirm466)) – guilt-tripping you into reluctantly accepting an offer that draws the eye. You click it reflexively, without thinking. That's what businesses are banking on and their tricks only get more complex and psychologically devilish.

Facebook knows that receiving notifications creates a near-Pavlovian response ([bit.ly/notification466](http://bit.ly/notification466)). It's part of what keeps us on the social network when we should be doing other things. That's why the site frequently flashes up notifications even when there's nothing to see: it produces an adrenaline buzz. And ask yourself why





**These 'warnings' stir up urgency and create a form of online panic buying**

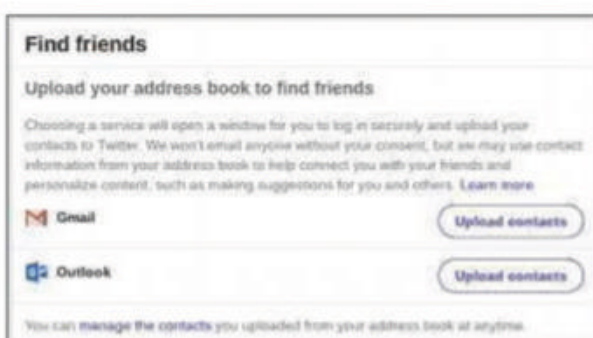
those notifications are coloured red (hint: it's not just so they get noticed).

Fear of missing out is another sneaky way sites can trick you into making purchases. Sites including eBay, Etsy and Booking.com aren't shy about telling you how many people are looking at the same product or hotel, and how many have been sold in the last hour. Even when you can see, in black and white, just how many items remain in stock or 'rooms at this price' are available, these 'warnings' still create a sense of urgency and panic. Before you know it, you're waiting on a delivery of 50 VCRs, just because you feared someone else might bag a bargain first.

Not all dark patterns are so nakedly nasty – some are presented as beneficial. That's why subscription services such as Netflix or EA Access set up recurring billing under the guise of making it easier for you to keep watching and playing what you love. Until you finally remember you're paying for the subscription, that is. And while it's easy to sign up (for *your* benefit, of course), you'll be jumping through hoops for hours just to cancel.

Watch out for 'Friend-spamming', too. Sign up to a social service such as Twitter or Facebook and it'll helpfully let you add people you know based on the contacts stored on your phone or in your email account. Congratulations: you've just furnished an anonymous web giant with your friends' and colleagues' personal data.

If it's any consolation, LinkedIn was fined \$13m for pulling this stunt back in 2015, after using contact details to send phoney invites to the site, apparently from unsuspecting users.



**Twitter lets you upload your contacts - but for its own selfish gain**

## How to spot dark patterns

The first step is knowing the types of dark patterns ([bit.ly/dptypes466](http://bit.ly/dptypes466)) that are used by web designers and app developers. This should help keep your digital antenna alert.

Some dark patterns quickly reveal their trickery, but by the time you realise something is off, it's too late. One sneaky example is the 'speck of dirt' or 'hair' displayed in ads on touchscreen devices: wipe it away and you suddenly find you've triggered the ad.



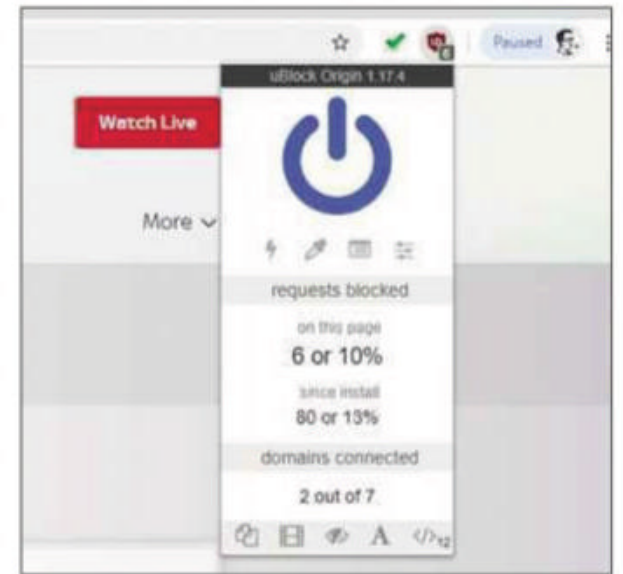
**Flick that hair away. The ad designer knows you want to**

Another successful dark pattern can be found in the PayPal app. Notice that the 'Continue' button loads first and in the time it takes

for you to press it with your thumb, it's been nudged down the screen by an ad, which is what your screen-tap registers. That isn't your internet being slow – it's nefarious design. Always ask yourself: What's in it for them?

## How to avoid dark patterns

With so many different kinds of dark patterns designed to lure you down murky paths, there's no silver bullet. The obvious place to start is by installing an ad blocker to kill off disguised ads. uBlock Origin ([bit.ly/ublock466](http://bit.ly/ublock466)) is a reliable filtering extension that works



**Protect yourself: install an ad blocker such as uBlock Origin and stay alert**

with most browsers.

Next, take your time and stay vigilant. Most dark patterns rely on you rushing and not paying attention. Companies take advantage by using misleading language and confounding expectations, so read what you're signing up for and double-check that you're clicking or ticking the right boxes. Beware of businesses that aren't above using 'opt-in' boxes on one page, only to switch to 'opt-out' on the next.

Set your own reminders to cancel free subscriptions before that automatic charge kicks in. And don't be fooled by online stores prompting you to spend extra to get free delivery, when delivery wouldn't cost as much in the first place.

Additionally, you should turn down your computer's volume. We all know that TV ads used to be louder than the programmes (until Ofcom made the practice illegal in 2012). However, YouTube, having normalised the sound for all its videos, has long engaged in boosting the volume of its ads to get your attention. ■

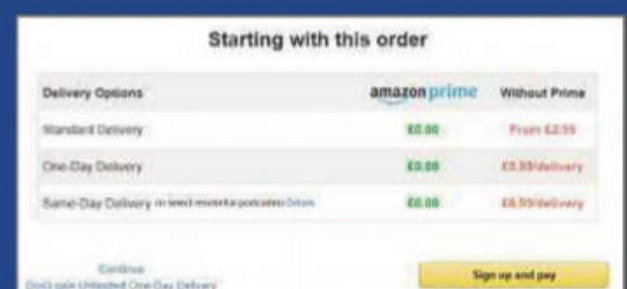
## MASTER OF THE DARK ARTS

Amazon is undoubtedly the master of the dark pattern. It starts with those pre-ticked boxes that trick you into subscribing to its Prime delivery service. The same service that offers a recurring subscription, and the words 'No thanks' in minuscule letters elsewhere on the page.

For one of the worst examples, try to close down your Amazon account for good and you'll find yourself in an intricate labyrinth of madness. You'd think it would be in account settings. It's not. Instead, you'll tour multiple help pages without guidance, leading to an Amazon chat box where someone else will – eventually – close it for

you. And don't even think about searching the pages for it because the option isn't there.

You can buy a Kindle in one click, but closing your account takes around 50. It's all part of Amazon's masterplan and a sign of its expertise in the art of dark patterns.



**How many 'dark patterns' can you spy in this one image from Amazon?**





# Practical WebUser

16 pages of workshops, tips, projects and problem solving

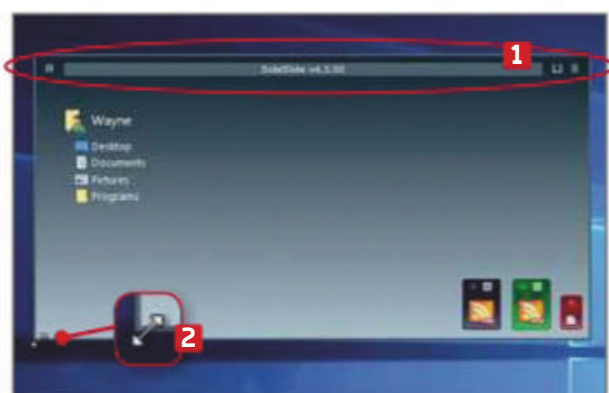
## Build a more powerful desktop

SideSlide is a highly configurable workspace tray and program launcher that helps keep your desktop better organised. Here's how to use it

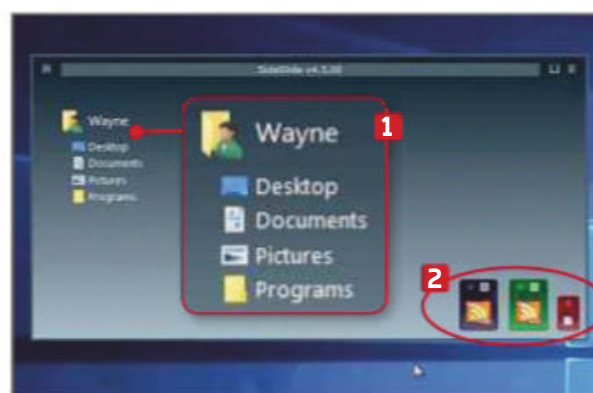
SideSlide: [bit.ly/ss466](http://bit.ly/ss466) | 20 mins | XP, Vista, 7, 8, 10

**W**e last took a look at SideSlide two years ago: since then the software has been refined and updated, and the interface has been improved. The program features a floating workspace, which can be placed anywhere on your desktop and used to store shortcuts, files, folders, bookmarks, notes, reminders, news feeds and more.

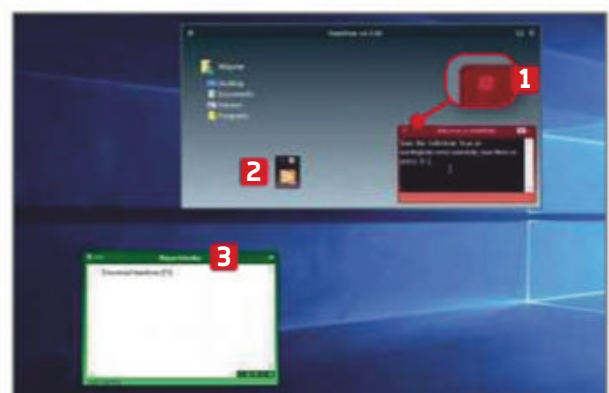
Everything is neatly sorted into resizable windows and the workspace can be hidden away at any edge of your screen, sliding back into view when you hover your mouse over it. The program also comes with a Keyboard Launcher that lets you quickly open items or websites, and you can access favourites via the Speed Launch menu.



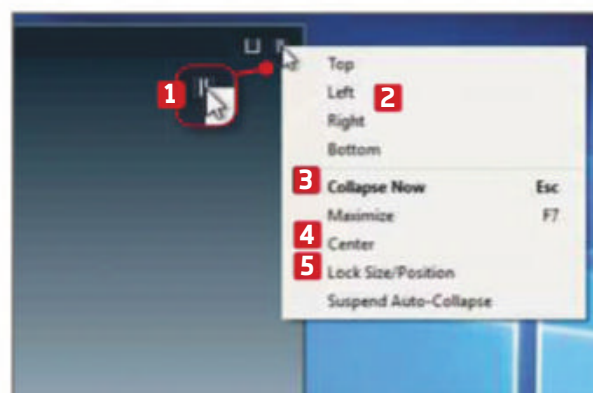
**1** Launch SideSlide to make the workspace appear. You can move it anywhere on screen by clicking and dragging its title bar. **1** To resize the workspace, move your cursor to the corner or edge of the window, then click and drag the handles. **2** Double-clicking the title bar maximises the workspace.



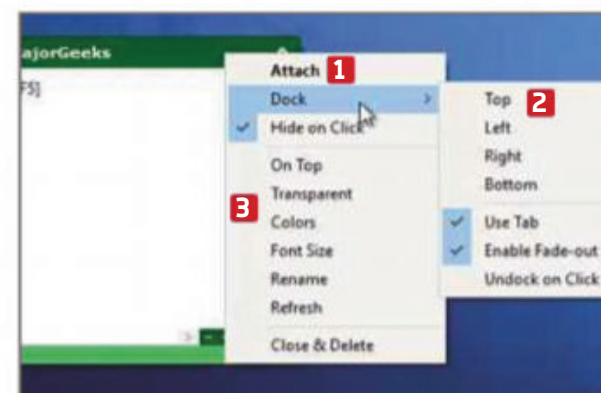
**2** The workspace provides direct access to your Windows user account folder, as well as the Documents, Pictures and Programs folders, and the desktop. **1** Double-click a location to open it in File Explorer. You can also interact with the ready-made containers – two news feeds and a welcome note. **2**



**3** Hover over the coloured square at the top of a container (or click the container itself) **1** to expand it. When you move your mouse away, it will shrink back down again. You can click and drag a minimised container around the workspace **2** and drag an expanded one to the desktop. **3**



**4** Control where on the screen the workspace sits by right-clicking the top-right button **1** to open a menu of potential positions. It can go on any screen edge, **2** and you can collapse it **3** or send it to the centre of the desktop. **4** You can also lock its size and position. **5**



**5** When not in use, the dock will 'collapse' (hide out of sight). To summon it, move your mouse up to the workspace's location. Right-click an expanded container's title bar to open a menu that lets you attach it to the workspace, **1** dock it somewhere on screen **2** or customise it. **3**

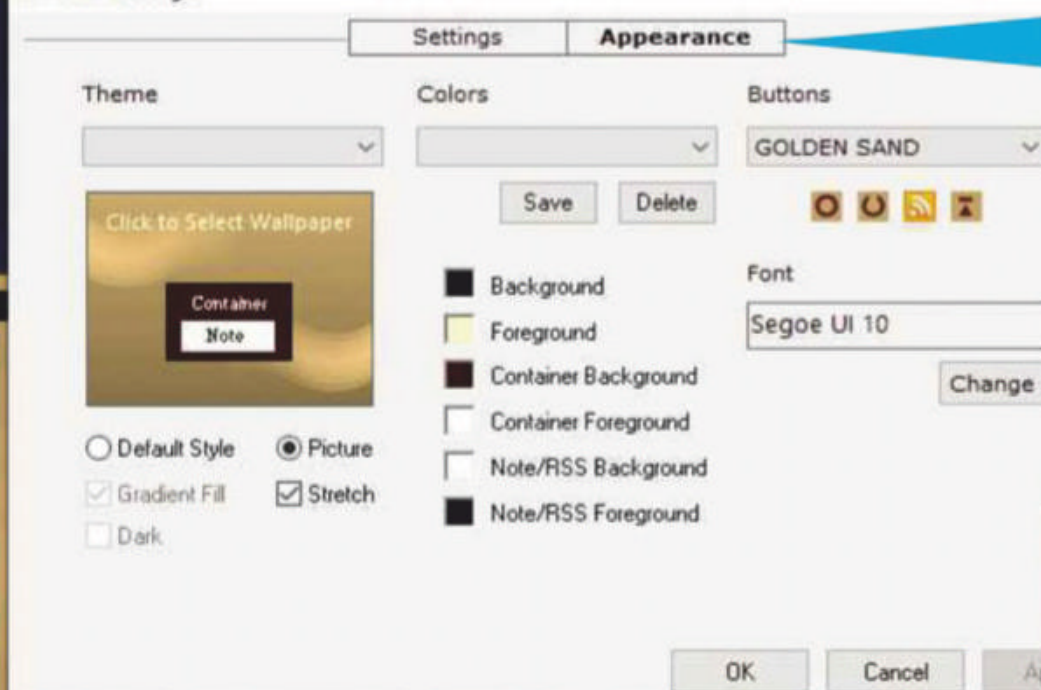
### RSS

Click the button to add new RSS news feeds or update existing ones. There's a built-in RSS viewer





SideSlide Settings

**APPEARANCE**

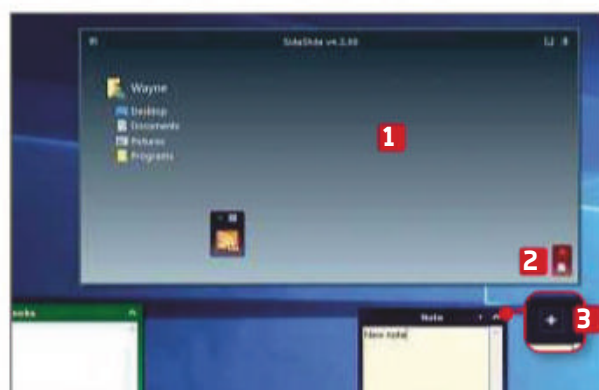
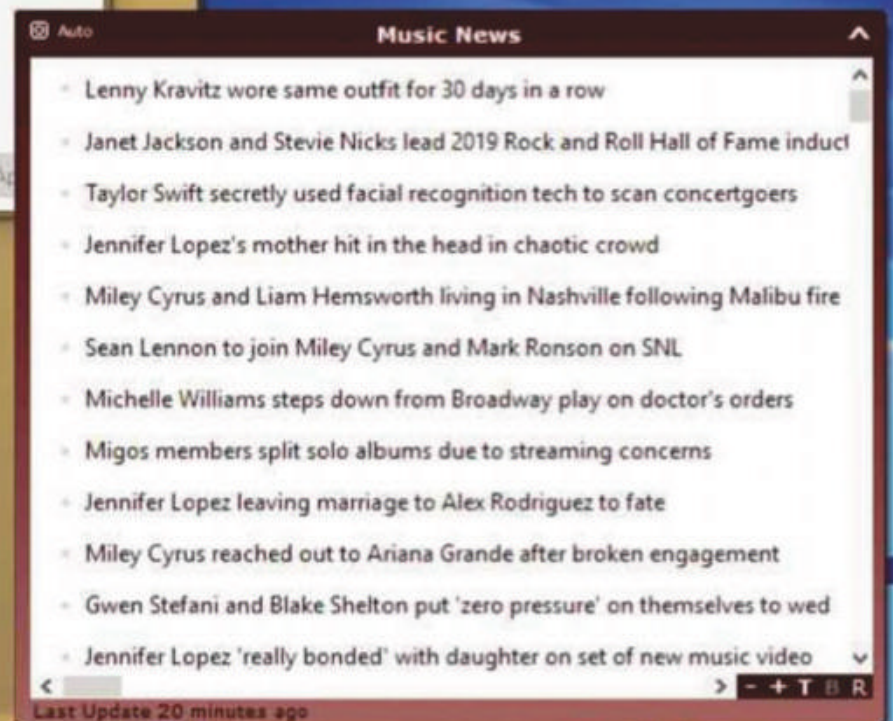
The software comes with a choice of themes. You can also change the colours, buttons and typeface

**LOCK**

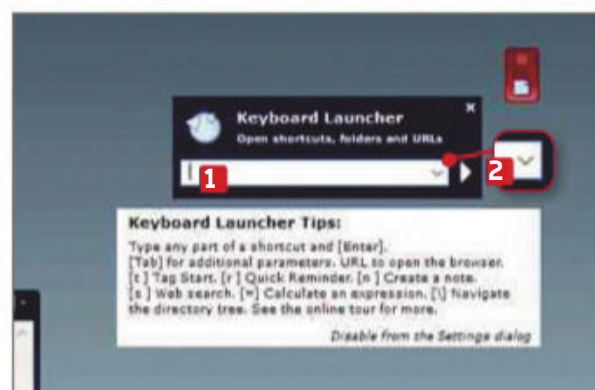
Click the Lock button to prevent editing. Once locked, you won't be able to move containers around

**SPEED LAUNCH**

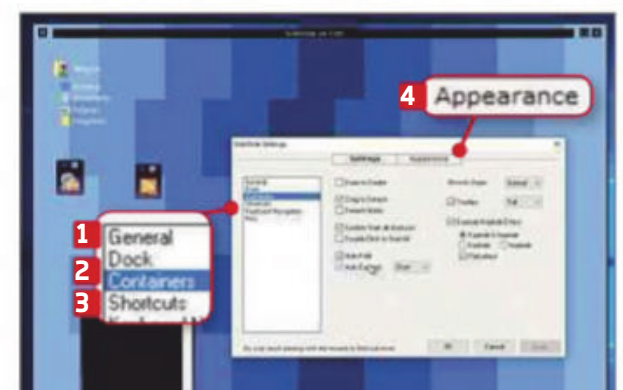
Quickly launch sites, programs and folders from the Speed Launch menu, or use keyboard shortcuts. Items can be added to the list via the Properties window



**6** Right-click the workspace to add new content, **1** such as a container or folder container, a news feed, a note, a reminder or a shortcut. **2** You can create additional notes (and some other containers) by clicking the plus sign in the item's title bar. **3** To add text to your note, click inside it and start typing.



**7** SideSlide has a keyboard launcher you can use to open shortcuts, folders and websites. Right-click inside the workspace and select Keyboard Launcher. Type what you're looking for in the search box, **1** then click the down arrow **2** to narrow searches to a particular folder (Desktop or Documents, for example).



**8** To customise the software, right-click inside the workspace and select Settings (or press F3). There are general settings, **1** dock and containers settings, **2** and shortcut settings. **3** Hovering your mouse over a setting will tell you what it does. The Appearance tab **4** lets you change the look of the program.





# Securely sync passwords across all your devices for free



Bitwarden: [bitwarden.com](https://bitwarden.com) | ⌚ 20 mins | Works with most devices, systems and browsers

It's unforgivable when online companies play fast and loose with our security – however, it's our responsibility to make sure that our account passwords are complex and unique. But managing this data – given that you're not supposed to write it down – is nigh on impossible without a password manager. LastPass ([www.lastpass.com](https://www.lastpass.com)) is an excellent option, but you have to pay to sync across your devices, while KeePass ([keepass.info](https://keepass.info)) is free but doesn't sync.

Now there's a third way. Bitwarden is a brilliant open-source password-management tool that stores your passwords securely in a web-based vault. It can be accessed from all your devices, including computers, mobile devices and browsers.

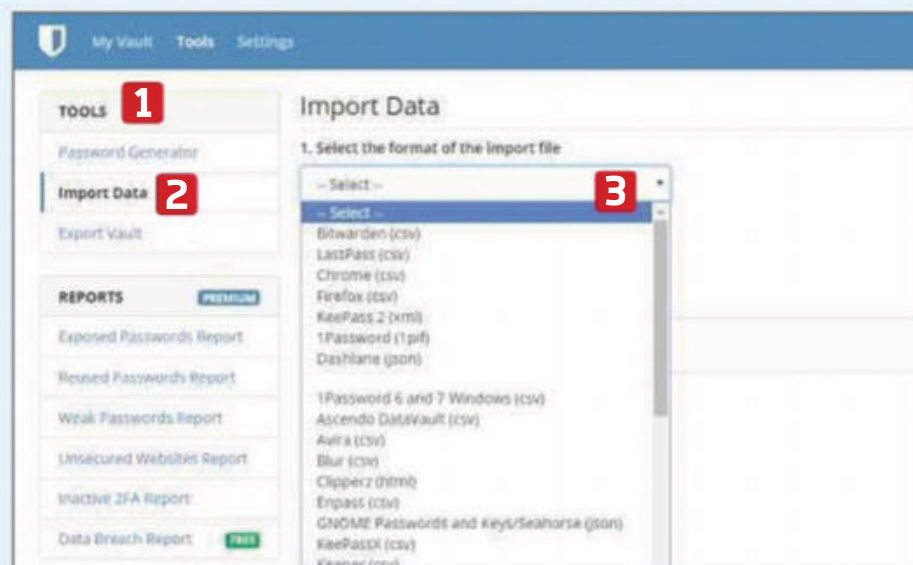


### EXPERT TIP

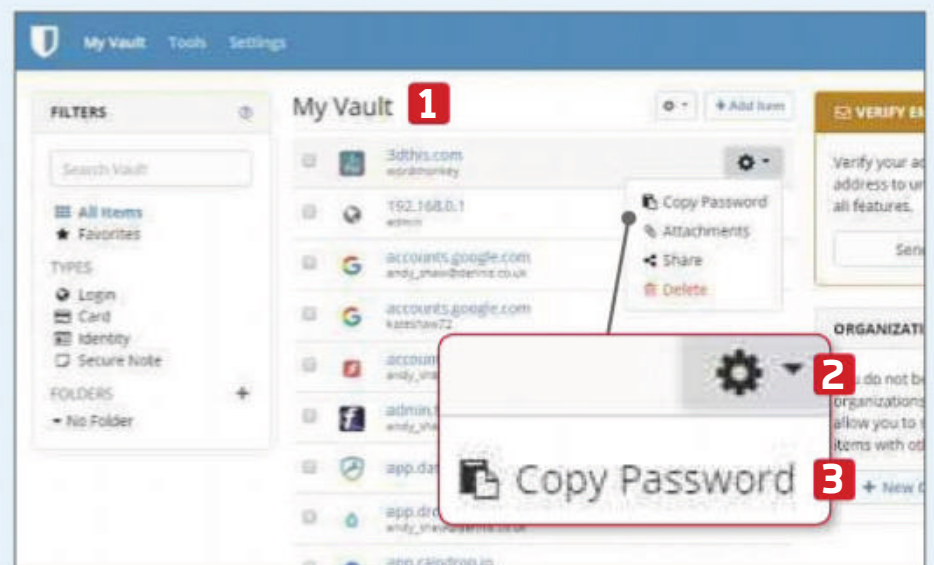
#### Andy Shaw says

If your partner or family members are hopeless with passwords, you can ease them into using Bitwarden with shared passwords for family accounts. Passwords are shared via the Organizations tool, which is accessed through the web vault ([vault.bitwarden.com](https://vault.bitwarden.com)).

Setting this up for two people (including you) is free, but expanding it across a larger group via a Family Account costs \$1 (around 80p) per month.



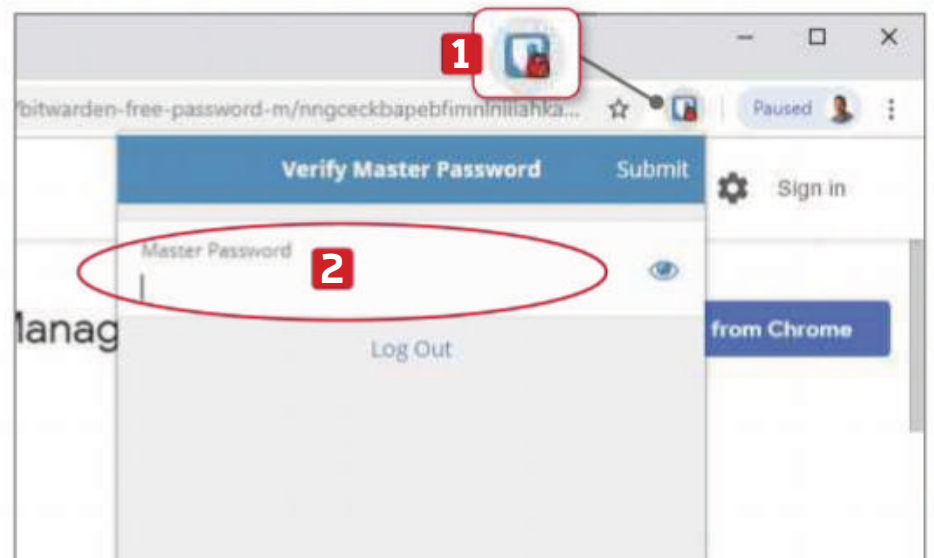
**1** The best place to start is on the web. Go to the Bitwarden website, create an account and log in. You'll need to verify your email account. If you have existing passwords stored elsewhere, click the Tools option **1** and select Import Data. **2** Choose the type of file from the drop-down list **3** – it recognises password files from most common tools, including browsers.



**2** Click 'Choose file' (or paste its contents into the box below) and click Import Data. A list of the imported information appears. **1** You can just use the online vault ([vault.bitwarden.com](https://vault.bitwarden.com)) to store your passwords, if you wish. To copy a password, hover over the account to get a cog icon with a drop-down menu **2** and choose Copy Password. **3**

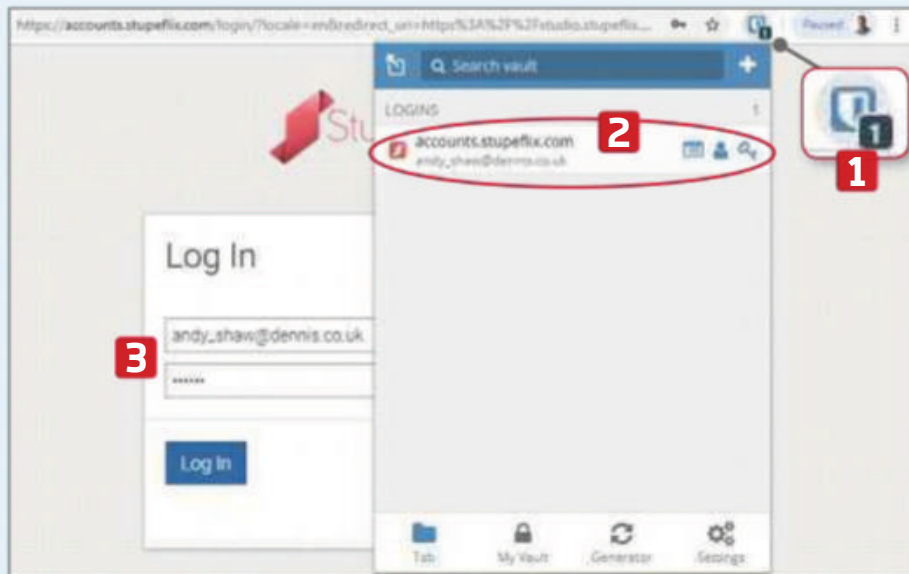


**3** You can now download Bitwarden's apps to any of your devices. See [bit.ly/bwdl466](https://bit.ly/bwdl466) for a full list and to access all the links. You can install it on a computer, **1** get an add-on for your browser **2** or add it to a mobile device (Android or iOS). **3** Start by adding your preferred browser add-on.



**4** Here, we've installed the Chrome add-on from [bit.ly/bwch466](https://bit.ly/bwch466). It installs an icon next to the address bar and overlays a red padlock icon **1** to show that you need to sign in. Click the icon and enter your master password in the pop-up. **2** Any accounts relevant to the current tab are displayed.

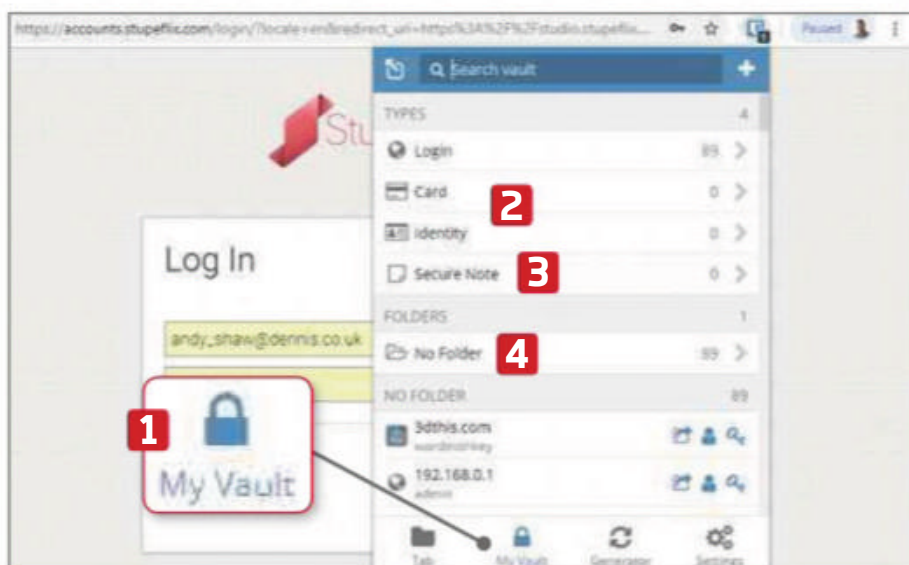




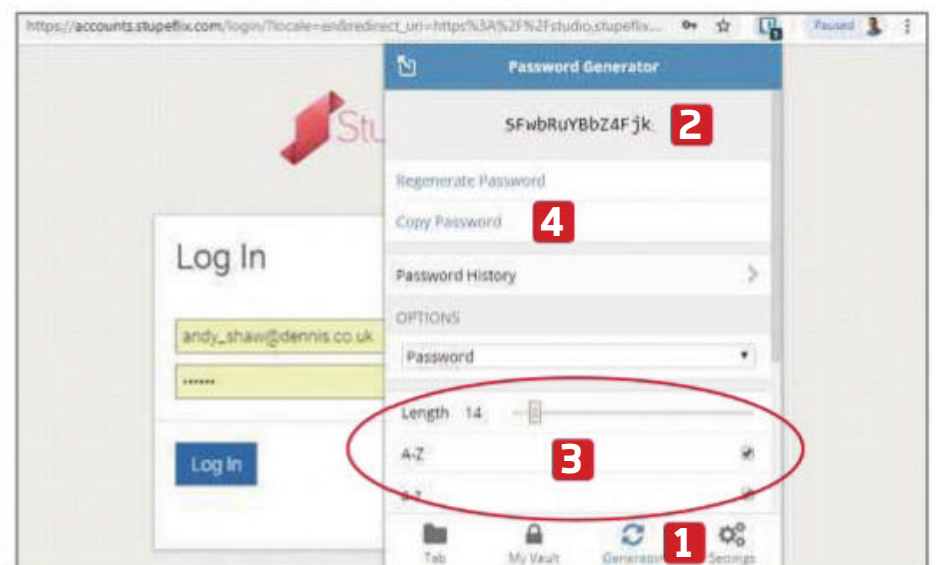
**5** Go to one of your account's sign-in pages. If there are details held for it in the Vault, you'll see a number superimposed, **1** indicating the number of stored accounts. Click the icon and the account name **2** to automatically enter your login details. **3**



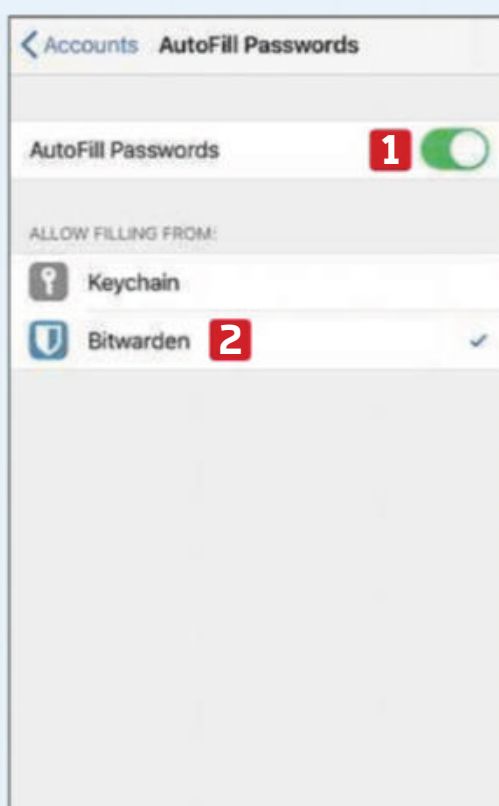
**6** Alternatively, you can right-click in the username or password box, and choose Bitwarden from the context menu. **1** This provides further options that let you 'Auto-fill' (as in Step 5); copy the username or password to the clipboard for pasting manually; or generate a new password. **2**



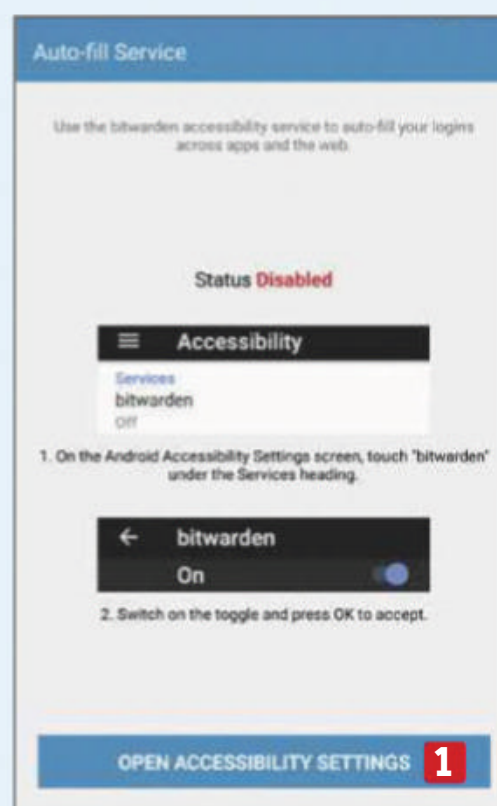
**7** To view everything in your vault, click My Vault. **1** Note that you can also add credit card details and identity information, **2** to help you fill out forms while you're shopping, entering addresses and more. You can also make a secure note **3** if there's something private you want to save for later. Tidy things up by organising them into folders. **4**



**8** The tool also has a password generator, so you can make a new, secure password for each new service you sign up to. Click Generator **1** and a new password is created at the top. **2** There are settings you can change below. **3** If you don't like a password, click Regenerate Password. Otherwise Copy Password **4** sends it to the clipboard for pasting.



**9** The mobile apps work in a similar way to the browser add-ons, but you have to set them up if you want to access the passwords in your mobile browser. Install the app for your device from either the Apple Store or Play Store. On an Apple device, open the Settings app, tap 'Passwords & Accounts', tap AutoFill Passwords, turn on AutoFill **1** and select Bitwarden. **2**



**10** On Android, open the Bitwarden app, tap the Tools page and choose Bitwarden Auto-fill Accessibility Service or Bitwarden Auto-fill Service, depending on your version of Android. Select Auto-fill Accessibility Service at the bottom. Status Disabled will appear in red. Tap the Open Accessibility Settings button. **1** Find Bitwarden and enable it.





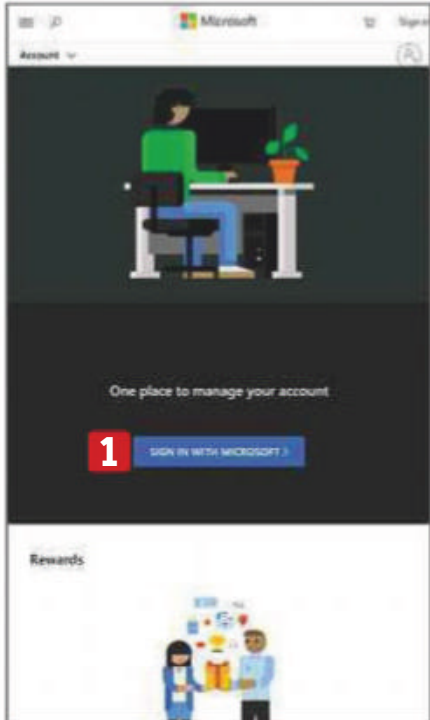
## Sync Android with Windows 10

Since killing off Windows Mobile, Microsoft has thrown itself into support for Android, adding the entire Office 365 suite and a smartphone-specific Edge browser to the Play Store. It also introduced the Arrow Launcher, which has

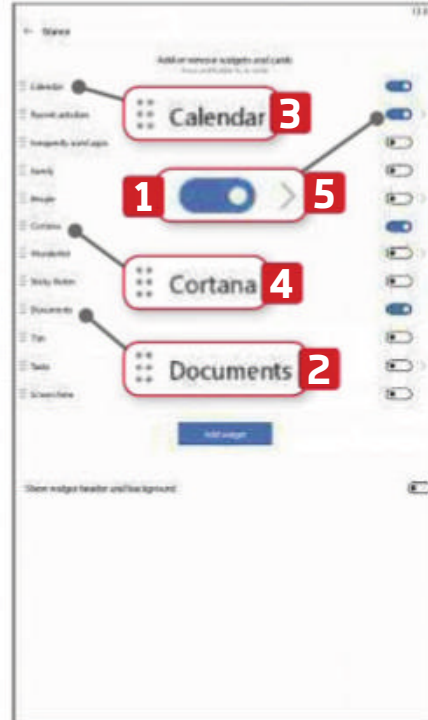
since been rebranded as Microsoft Launcher. If you use Microsoft's apps on Windows 10, this Android tool will seamlessly sync almost everything between your phone and PC.



**Microsoft Launcher:** [bit.ly/mslaunch466](https://bit.ly/mslaunch466) | 10 mins | **Android 4.0+**



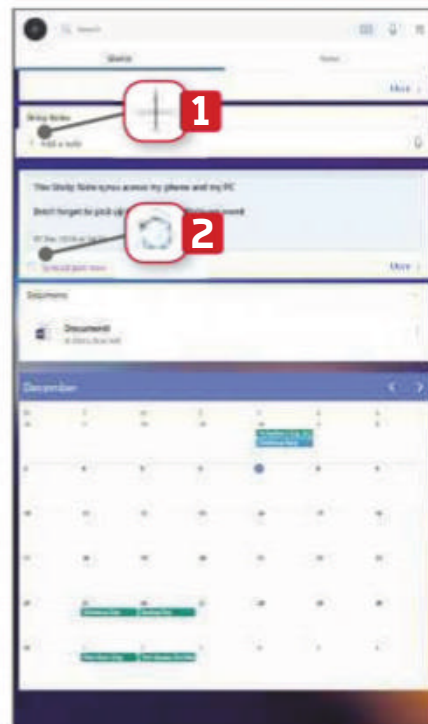
**1** To start syncing across devices, sign into your Microsoft account on your Android device or sign up at [account.microsoft.com](https://account.microsoft.com). Swipe right and tap the circle in the top-left corner, then tap Sign In With Microsoft. **1** Once you're in, tap each 'card' in the Glance feed, to grant the launcher specific permissions.



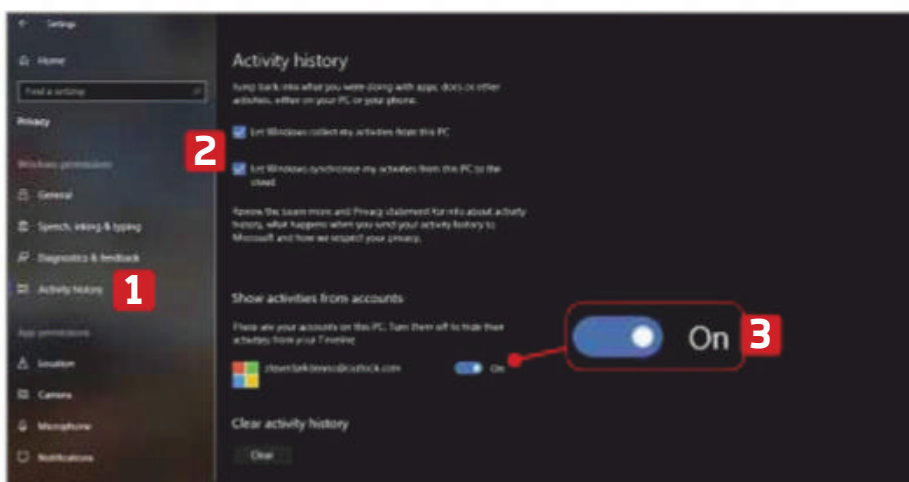
**2** Tap 'Customise feed' at the bottom of the launcher. Use the switches **1** to add specific 'cards' to your feed: Documents **2** syncs with Word on your PC; Calendar **3** with Outlook; and Cortana **4** with Microsoft's AI assistant. Tap the arrow for 'Recent activities' **5** to switch on Photo, Video, Documents and Mail.



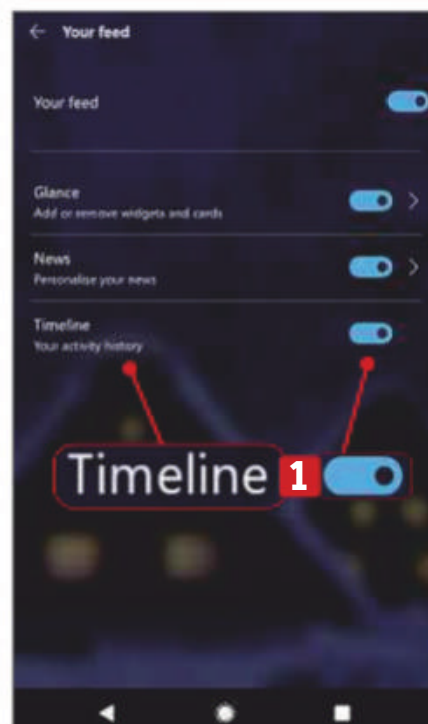
**3** Tap 'Add widget'. There are default widgets to choose from, but if you use cross-platform apps such as Google Calendar ([bit.ly/gcal466](https://bit.ly/gcal466)) and many from Microsoft's suite ([bit.ly/msapps466](https://bit.ly/msapps466)), these will also appear in your list. **1** Once selected, click Create **2** in the on-screen prompt to give the launcher permission to access the data displayed by the widget.



**4** Sign up as a Microsoft Launcher beta tester at [bit.ly/msbeta466](https://bit.ly/msbeta466). This adds Sticky Notes and To Do ([bit.ly/todo466](https://bit.ly/todo466)) to cross-platform syncing. Switch on each app in 'Customise feed' and tap '+' **1** to add a note. Tap the circular Sync arrow **2** to force synchronisation. Tapping the card expands it to display all your synced notes.



**5** The latest version of Launcher introduces Timeline, which lets you open files, web pages and apps on one device, then continue to use them on another. On your PC, click Start, Settings, then Privacy. In the sidebar, select 'Activity history'. **1** Tick both permission boxes **2** and toggle your Microsoft account to 'On'. **3**



**6** Back on your phone, swipe across to Microsoft Launcher. Head into the settings by clicking the cards-and-cog icon in the top-right corner, then switch on the Timeline option. **1** You'll now see that the Timeline tab has been added to the main Microsoft Launcher feed.





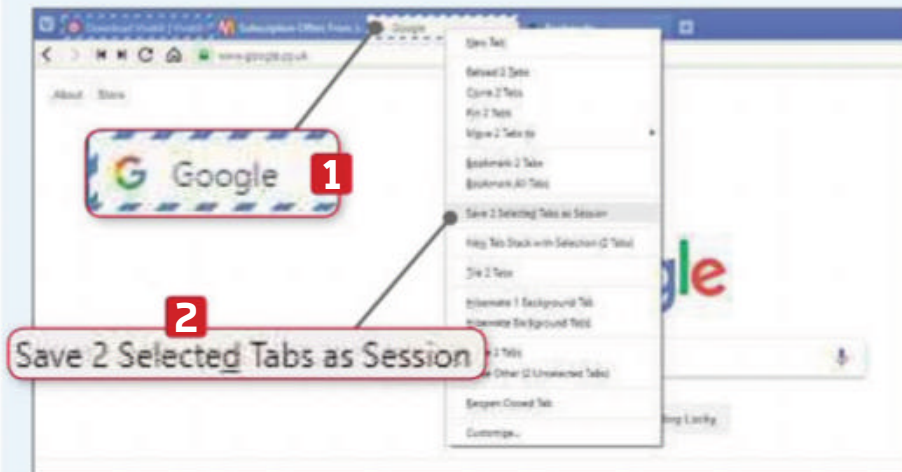
# Explore Vivaldi's new browser tools

Updates to the brilliant Vivaldi browser are coming thick and fast, as the constantly improving software continues to gather momentum. Here, we guide you through the latest tools since last year's launch of version 2.0,

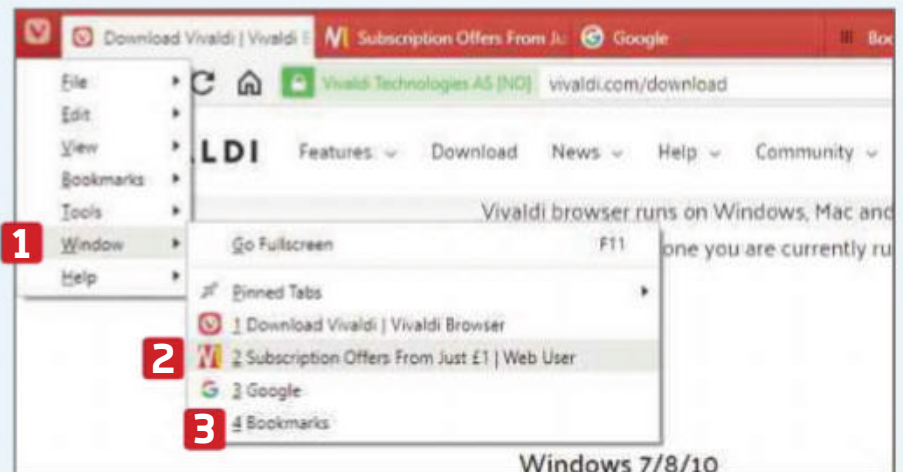
which let you customise the address bar, access your tabs more quickly (even if you've already closed them) and save bespoke collections of tabs for reopening at a later date.



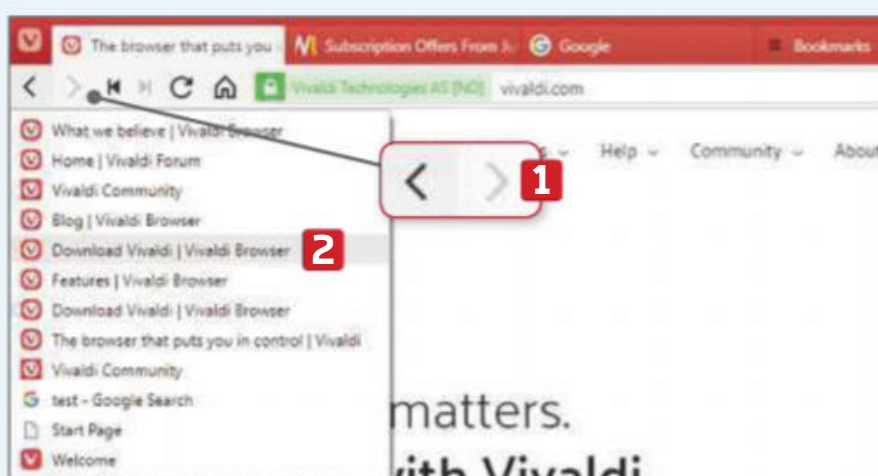
Vivaldi: [vivaldi.com](http://vivaldi.com) | ⌚ 10 mins | 🖥️ Windows 7, 8, 10 🍏 Mac OS 10.10+ 🐧 Linux



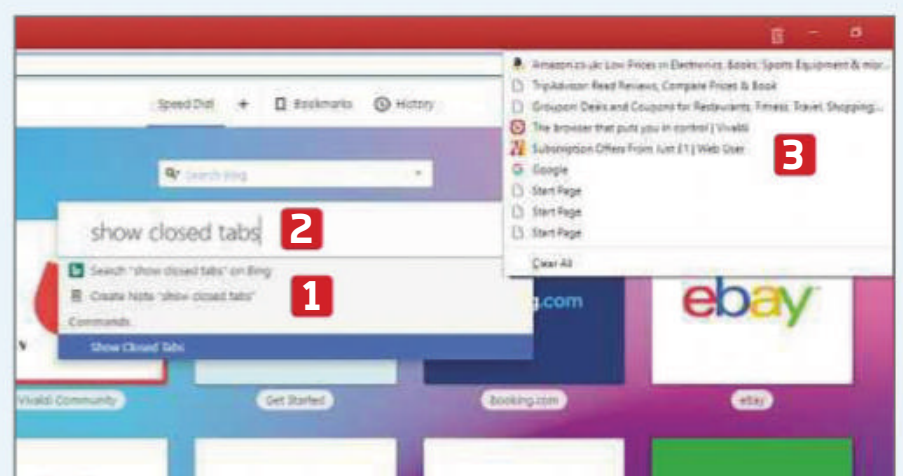
**1** You can select the Vivaldi tabs you'd like to save as a 'session' while keeping everything else open. Ctrl+click the tabs, **1** then right-click one and choose 'Save x Selected Tabs as Session'. **2** Give the saved session a name. To reopen a saved session, press the Alt key, choose the File menu and select Open Saved Session.



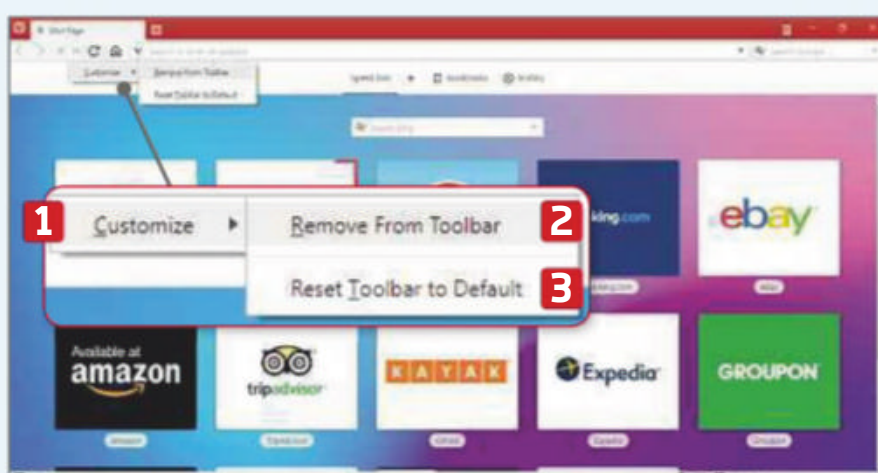
**2** Switch between tabs more quickly by using number shortcuts. Press Alt+W to open the Window menu. **1** Open tabs are listed vertically, **2** with a number to the left. **3** You can either press the number key of the tab you want or just click it with your mouse.



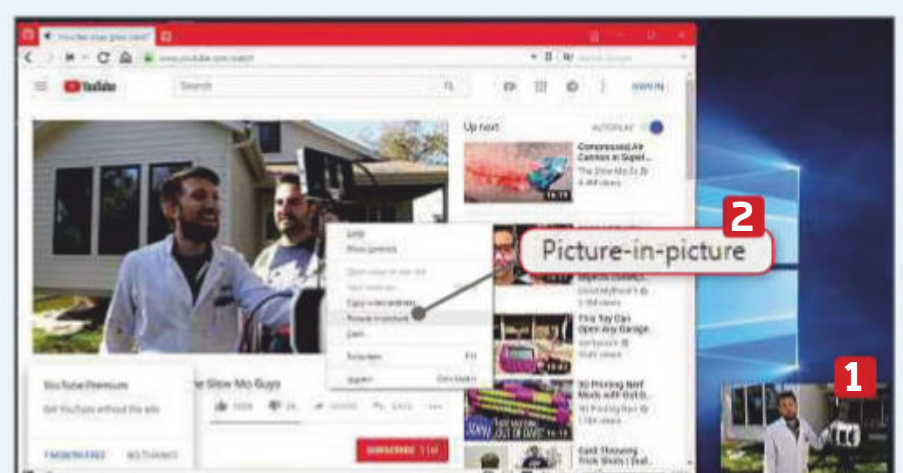
**3** Sometimes you may want to go back to a previous page but still keep the current tab open. Click and hold Vivaldi's Back or Forward button, **1** then choose the page you want to open using your mouse's middle button. **2** This opens the older page in a new tab so you don't lose your current place.



**4** One of Vivaldi's best tools is its Quick Commands toolbar, summoned by pressing F2. **1** You can open a recently closed tab by typing its title and pressing Enter. If you can't remember what it's called, type show closed tabs **2** and press Enter. This opens the list of recently closed tabs – just click the one you want to reopen. **3**



**5** You can choose which tools appear in the Address bar (top) and Status bar (bottom). To remove something from either area, right-click it, choose Customize, **1** then Remove From Toolbar. **2** To bring items back again, choose 'Reset Toolbar to Default'. **3**



**6** Any HTML5 video can be popped into a picture-in-picture window, **1** so you can keep watching while doing other things, as long as you don't close the original tab. Right-click a video and look for the 'Picture-in-picture' option. **2** On YouTube, you have to double right-click.



# Weekend Project

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

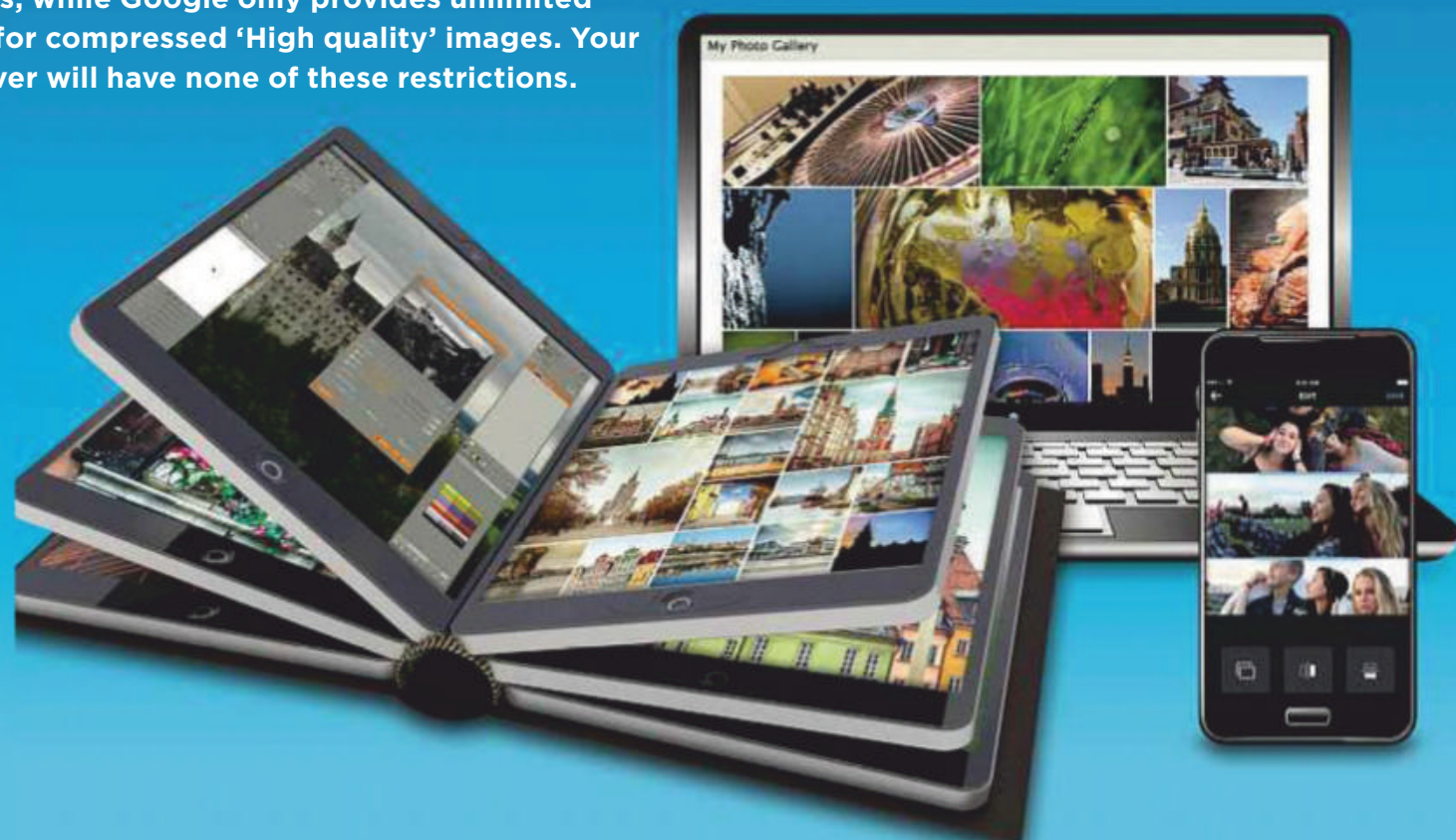


How to...

## Make your own online photo-storage service

**Wayne Williams** shows you how to create a personal version of Flickr or Google Photos using an old PC

In previous Weekend Projects, we've shown you how to create home versions of Netflix and Spotify. In this issue, we guide you through the process of using an old PC to make an online photo gallery in the style of Flickr or Google Photos. The process is quite straightforward, and the benefit of building your own self-hosted storage solution is that you don't need to worry about the limitations imposed by cloud services. For example, Flickr recently reduced its free level of storage from 1TB to 1,000 photos, while Google only provides unlimited storage space for compressed 'High quality' images. Your own photo server will have none of these restrictions.

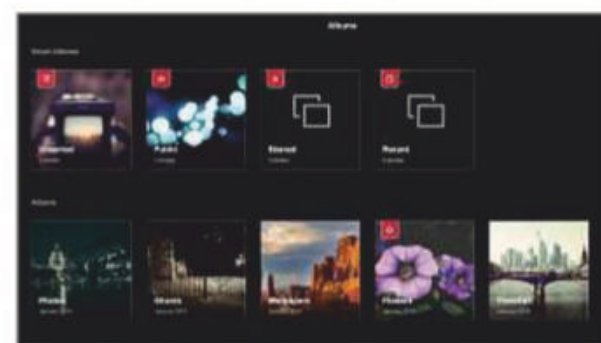


### What you'll need

For this project, we'll be using Lychee ([lychee.electerious.com](http://lychee.electerious.com)), a free, open-source photo-management tool that can run on either a server (a PC that you set up yourself and add to your network) or a hosted web-space. Depending on your preference, you'll either need a spare PC that can act as your server or a web domain with hosting.

In this project, we'll focus on building

your own photo server. Provided you have a spare PC with a large enough hard drive, it won't cost you anything to get started. You will need to install a copy of Ubuntu Server on the PC ([bit.ly/ubun466](http://bit.ly/ubun466)) – download either the 18.04.1 LTS (Long Term Support) or 18.10 builds, it doesn't really matter which one you go for. Write the downloaded ISO file to DVD or USB flash drive (use Rufus from [rufus.ie](http://rufus.ie) for the latter) and boot into it.



There's a live demo of Lychee you can try out at [ld.electerious.com](http://ld.electerious.com)



Profile setup

Enter the username and password (or ssh identity) you will use to log in to the system.

Your name:

Your server's name:   
The name it uses when it talks to other computers.

Pick a username:

Choose a password:

Confirm your password:

Import SSH identity: [ No ▼ ]  
You can import your SSH keys from Github or Launchpad.

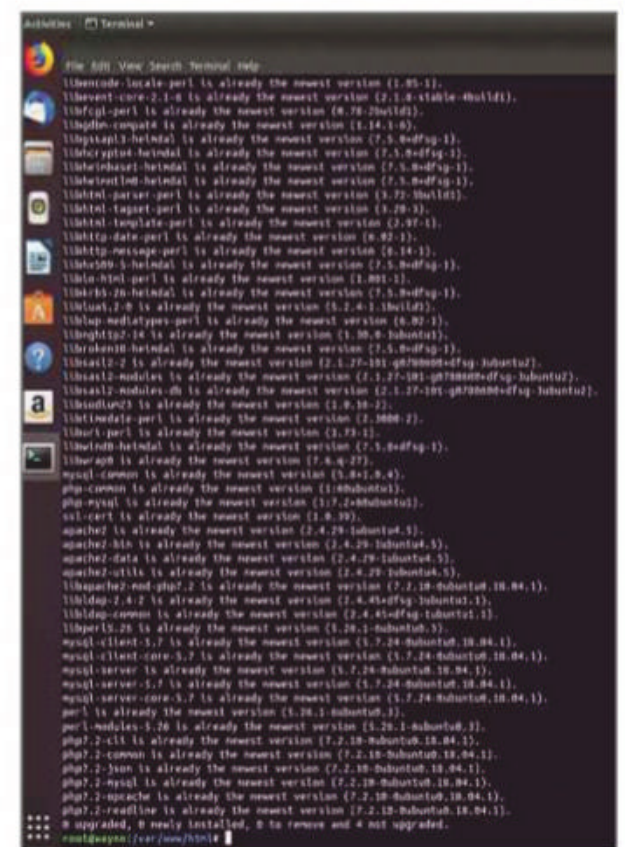
Import username:

5 / 11

Install complete

Type `sudo apt install ubuntu-desktop` and press Enter. Type your password, press Enter and type `Y` when asked if you want to update the package. The installation takes a long time, so be patient. When it's done, reboot and log into the interface, then open Terminal.

To download Lychee from GitHub, type `git clone https://github.com/electerious/Lychee.git` and press Enter. It's installed in a 'Lychee' folder and shouldn't take long.



Now open it in the Nano text editor by typing: `nano /etc/apache2/sites-available/lychee.conf`





compression, and it fully supports EXIF and IPTC metadata, such as the format and resolution of your photos, so you (and anyone else you share it with) can see it at a glance.





# Broadband Deals

Call FREE on 0800 083 2357 to switch your broadband

	Provider	Package name	Monthly price	Contract length	Broadband speed	Allowance	First-year cost*
1		First Utility: First Broadband	£18.99	18 months	11Mbps avg. speed	∞ unlimited	<b>CHEAPEST</b> £227.88
2		TalkTalk: Fast Broadband	£19.95 (£27 after 12 months)	12 months	11Mbps avg. speed	∞ unlimited	£239.40
3		Sky: Broadband Unlimited	£20.00 (£30 after 18 months)	18 months	11Mbps avg. speed	∞ unlimited *	£240.00
4		Virgin Media: Player Bundle + Fibre Broadband + Weekend Calls	£32.00 (£51 after 12 months)	12 months	54Mbps avg. speed	∞ unlimited	£384.00

Terms & Conditions apply - see ISP sites for details

\* Fair-usage or restriction policy applies.

Data supplied by [www.broadbandgenie.co.uk](http://www.broadbandgenie.co.uk). Correct as of 12 December 2018.

**Ofcom**

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

## In the next issue of our sister title Computeractive...

**SNEAK  
PREVIEW!**

Computer  
**active**

**DON'T LET YOUR PHOTOS & VIDEOS EXPIRE** How & where to save them so they last for years to come

• Readers' favourite software of 2018 revealed

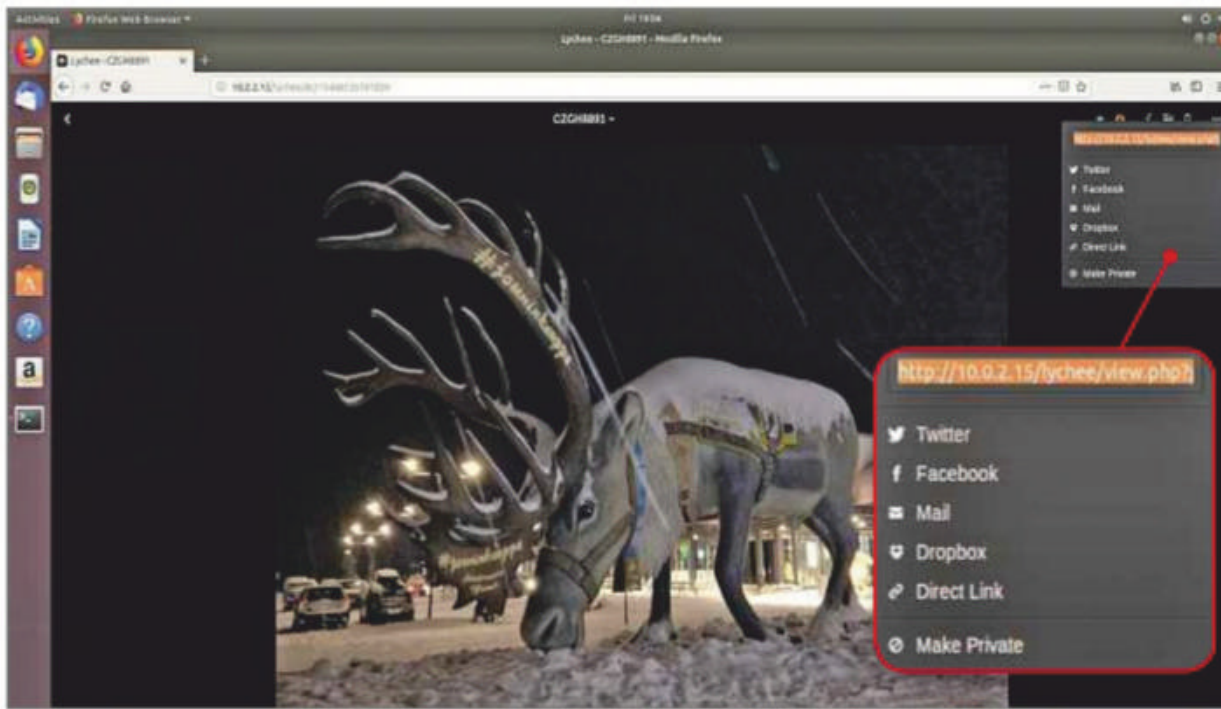
Subscribe at [www.getcomputeractive.co.uk](http://www.getcomputeractive.co.uk)

• Office 2019: Your complete guide – should you upgrade? Or switch to free alternatives?

**PLUS:** Build your own Mesh Wi-Fi using old routers

**On sale  
Weds  
16 Jan**





Click the Share button to share your photo on Twitter, Facebook, Dropbox or email, or get a direct link

Type the following, pressing Enter after each line:

```
VirtualHost *:80>
ServerAdmin admin@
domainnamehere.com
DocumentRoot /var/www/html/
Lychee/
ServerName domain.com
ServerAlias www.domain.com
<Directory /var/www/html/
Lychee/>
Options Indexes
FollowSymLinks MultiViews
AllowOverride All
Order allow,deny
allow from all
</Directory>
ErrorLog /var/log/apache2/
domainname.com-error_log
CustomLog /var/log/apache2/
```

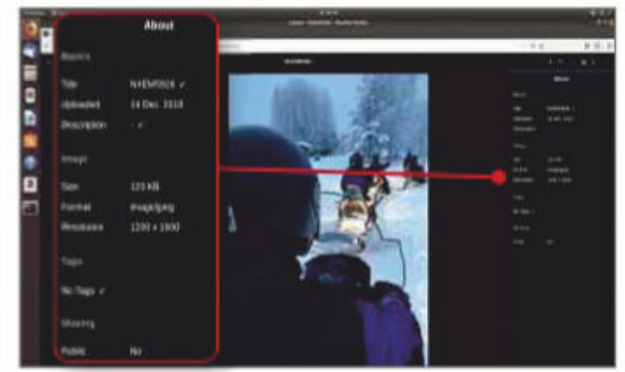


The Diagnostics screen tells you if Lychee has encountered any problems

```
domainname.com-access_log
common
</VirtualHost>
```

Press Ctrl+O to save it and press Enter. Now that everything is installed, we just need to set up Lychee.

Find out your server IP address by typing `ifconfig` into Terminal, pressing



Find out details about an image, such as its size, format and resolution

Enter, and making a note of the number returned towards the top. Open your web browser and go to `http://ip-address/Lychee`, replacing 'ip-address' with your actual IP address.

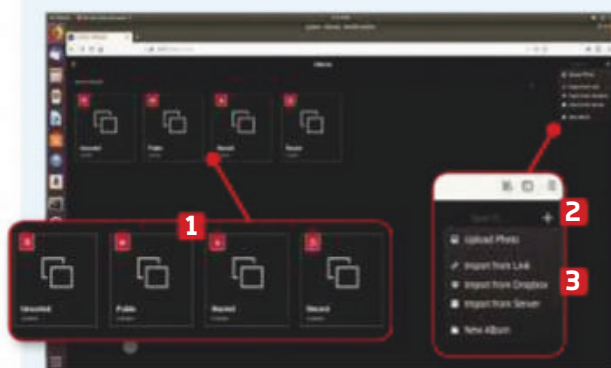
In the login box that opens, type `lycheeadmin` as the username, and the SQL password you set up earlier as the password. If everything has worked properly, you'll be presented with a box that lets you enter a new username and password for the installation. Lychee will load, ready for you to add some content – see our Mini Workshop below.

## PHP and other problems

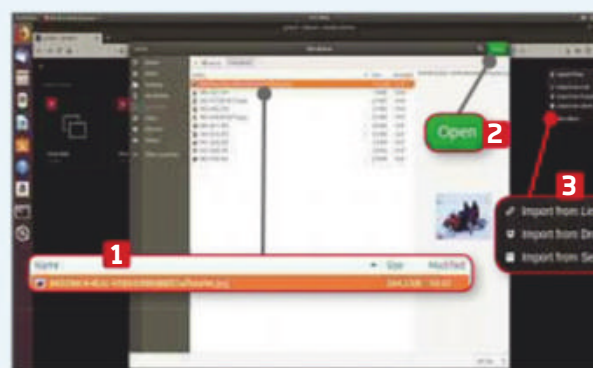
We've found Lychee and the associated packages can be a little problematic at times. You might find, for example, that the `php.ini` file takes exception to you loading images if they're particularly large, in which case you'll need to tweak the settings. It may also be that the software requires additional or updated PHP extensions. Click the Settings cog in the top-left corner of Lychee and open Diagnostics. That will show you which areas, if any, require attention. ■



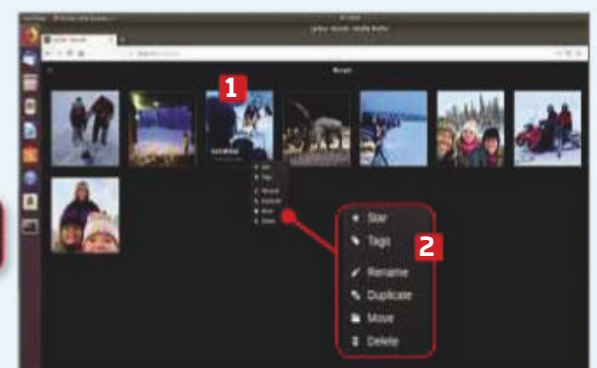
## MINI WORKSHOP | Add your photos to Lychee



**1** The first time you run Lychee, you're presented with four albums – Unsorted, Public, Starred and Recent. **1** They're all empty at this point, so the next step is to add some images. Click the plus sign in the top-right corner **2** to open the upload menu. **3**



**2** The menu lets you upload images from your computer or from a connected USB drive. Browse to the location you want in the File Upload tool, **1** select it and click Open. **2** You can also pull images from a web link or import them from Dropbox (you'll need to set this up) or a server. **3**



**3** Create a New Album from the Add menu. Right-clicking a photo's thumbnail **1** lets you star, tag, rename, duplicate, move or delete it. **2** Select Move to display the available destinations. Click one to send your chosen image to it. Clicking a photo opens it.

## NEXT ISSUE

How To... Stop people stealing your photos and videos

On sale  
Wednesday  
23 Jan



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## ...on an iPad or iPhone

- STEP 1** Return to the **Web user library**
- STEP 2** Choose your subscription term and tap twice on the '**price**' box
- STEP 3** Choose whether to create an optional **PixelMags** account
- STEP 4** Enter your **Apple ID password** to confirm



## ...on a Kindle Fire

Kindle Fire subscriptions come with a **FREE** one month trial.

- STEP 1** Tap '**Free Trial Subscription**' in the **Web user library**
- STEP 2** Chose your subscription term from the drop down menu on the popup that appears
- STEP 3** Tap '**Subscribe**'



## ...via the Zinio app

- STEP 1** Search for **Web user** via the search box in the **Shop tab**
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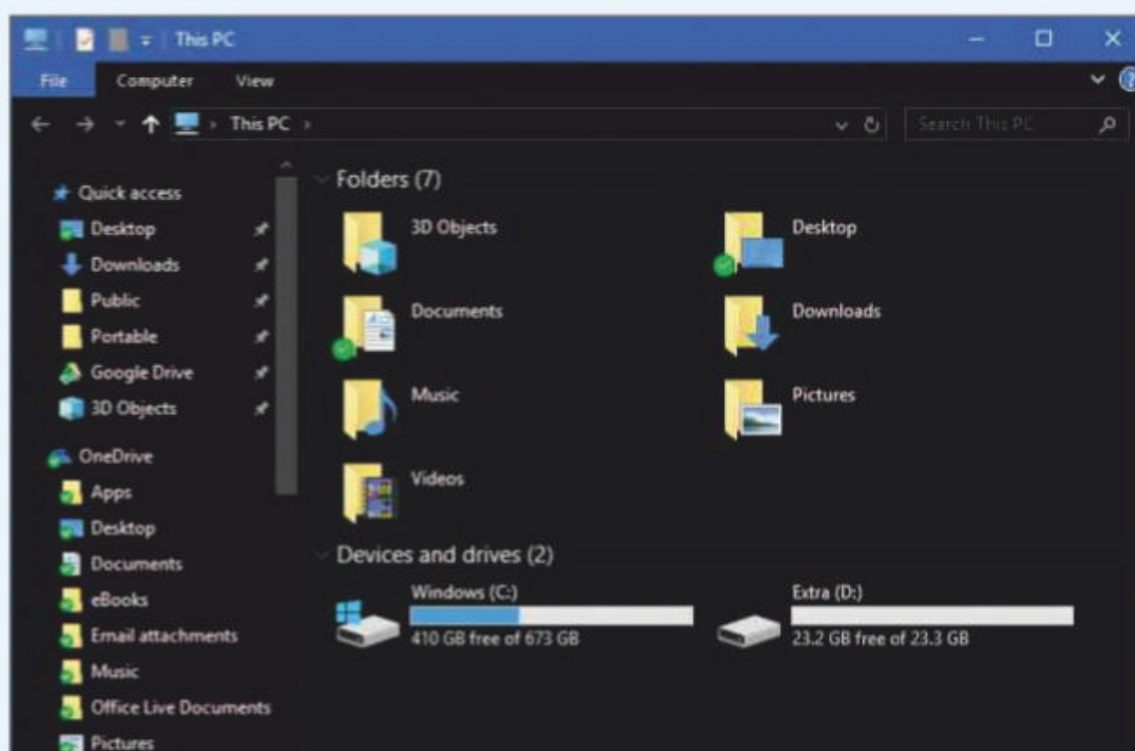
# Web User Masterclass

Give your eyes a rest by mastering dark mode on your PC, phone and tablet

## Enable the dark mode in Windows

**T**he standard display mode for Windows uses a light background with black text. Dark mode swaps this for a dark background with white text, which is designed to be easier on the eye, particularly at night time, although some people like to use it all day long. Before last October's update, dark mode was limited to Settings and a few other apps. Now, it's been extended to more apps and Explorer supports it, too.

Open the Settings app (Windows+i) and click Personalisation, then Colours on the left. In the 'Choose your default app mode', choose Dark. It doesn't work everywhere, but support is growing with each update and an increasing number of apps now switch to dark mode, including News, Calendar, Mail, Store, Weather and People.



*Windows 10 dark mode is expanding to other apps, such as Explorer*

## Dark wallpaper, colours and themes

As well as selecting the dark theme for Windows, you might also want to set a dark desktop, colour scheme or theme that's easy on the eyes. Search sites such as Pixabay ([pixabay.com](https://pixabay.com)) for 'night sky', 'night forest' or 'dark background'. Save the image to your hard drive, then find the file in File Explorer and right-click it, selecting 'Set as desktop background'.

Open Settings and click Personalisation, then Colours. On the right, under 'Choose your colour', select 'Automatically pick an accent colour from my background' and choose one of the darker colours from the palette. For more options, scroll down and click 'Custom colour'.

**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.**

Click Themes on the left, then 'Get more themes in Microsoft Store'. 'Call of the Raven', Meteor Showers, Dark Skies and Warm Winter Nights all use dark colours. Click a theme thumbnail, then click the Get button to install it.

## Make YouTube dark

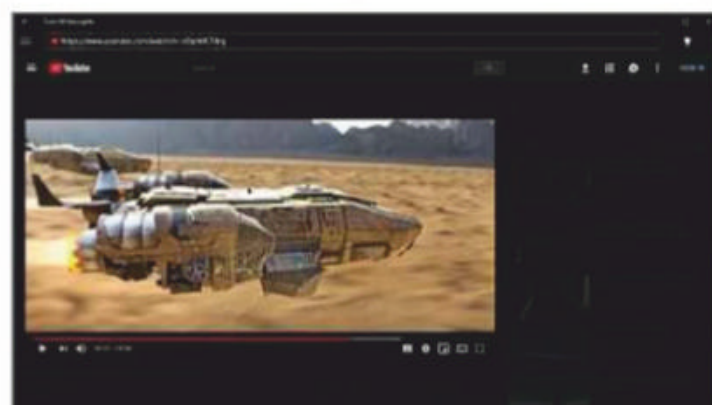
YouTube's dark theme, which displays a dark background with white text, enhances the look of videos, making them look more cinematic when watching in normal browser mode. It doesn't affect full-screen mode, which always uses a dark background anyway.

To enable the dark theme, click your account picture in the top-right corner of a YouTube page, then click 'Dark theme' to switch it from Off to On. You can switch back using the same menu.

YouTube dark mode works on iOS and now Android devices, too. Tap your account picture in the corner of the YouTube app, tap Settings and enable 'Dark theme'. It looks great and, on some devices, uses less battery power, too.

## Even darker YouTube

If the white text in YouTube's dark theme means it's still not dark enough for you, try the Windows 10 app Turn Off The Lights, which is available from the Microsoft Store. It makes YouTube even darker by dimming the white text. The app lets you open YouTube (and Facebook) to watch videos. Click the three-dot icon at the top for a menu from which you can turn on the dark theme. When you're watching a video, you can click the lightbulb icon at the top to dim everything but the video window, toning down the white text to make it less distracting.



*Darken everything except the video you're watching with Turn Off The Lights*

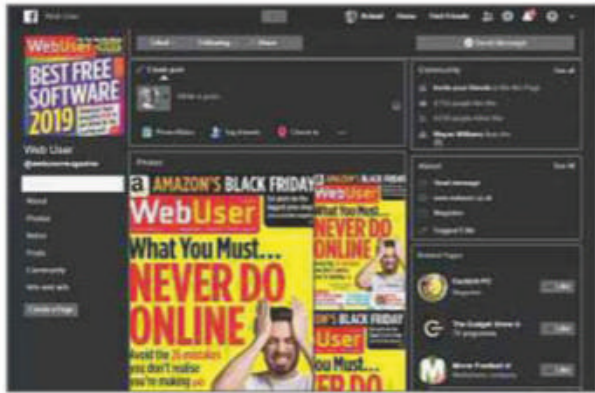




## Darken Facebook and Google

Facebook doesn't have a dark theme, but the Chrome add-on Dark & Night Theme for Facebook ([bit.ly/dntf466](http://bit.ly/dntf466)) will do the job. Install it and go to the Facebook website, then click the moon icon in the toolbar and hover your mouse over the five dark themes. Click the one you like most.

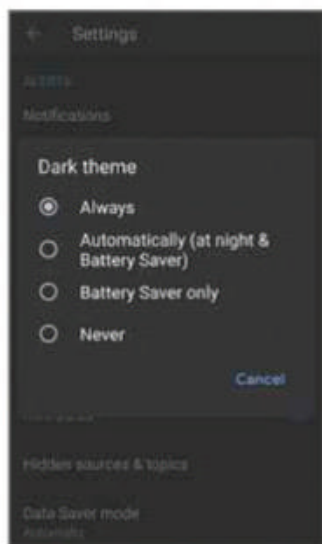
There's a similar Chrome add-on called Dark Theme for Google, which you can download from [bit.ly/dtgo466](http://bit.ly/dtgo466). This applies dark themes to various forms of Google search.



*This add-on gives Facebook a dark mode – there are five to choose from*

## Dark mode on the go

Phones and tablets don't usually have their own global dark mode settings. Instead, they rely on them being built into individual apps by their developers. To see if an app has a dark mode, check its settings.



*The Google News mobile app has a range of dark mode settings*

Google News shows other apps how it should be done. Open the app, tap your account picture in the top-right corner and press Settings. Tap 'Dark theme' and choose from four options that enable the dark theme all the time, never, automatically or when your device is in battery-saver mode. The automatic option switches on the dark theme both at night and whenever the battery is low.

Amazon Kindle has light and dark themes in the app, but books are set separately. Open a book, tap a page, press Aa, tap Color and choose black. In Google Play Books, tap a page, then Aa, press the cog icon and select black.

Microsoft News has a dark theme switch in the app settings. For Twitter, tap your profile picture and enable 'Night mode'. In Android Messages, tap the three-dot menu and press 'Enable dark mode'. It's worth checking your other favourite apps to see if they have their own dark mode.

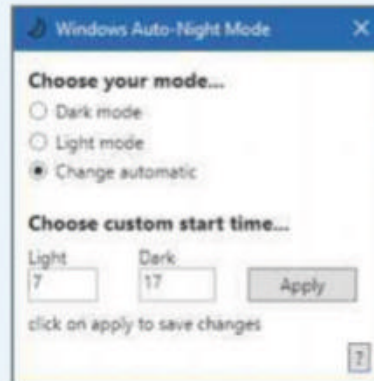
## TAKE IT TO THE NEXT LEVEL

More advanced tips for when you're feeling brave

### Schedule Windows dark mode

The Windows Auto-Night Mode app (available from GitHub at [bit.ly/wanm466](http://bit.ly/wanm466))

lets you set light or dark mode at specific times of the day. Run it and select the 'Change automatic' option,



*Set a time of day to switch from Light to Dark mode*

then choose the times you want to trigger the switch, such as 7am and 5pm. Click Apply.

### Dark mode Registry hacks

Windows is put in dark or light mode by a Registry setting. Open the Registry Editor by pressing Windows+R, then type `regedit` and press Enter. Go to:

`HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Themes\Personalize`

On the right is `AppsUseLightTheme`, which is set to 1 when light mode is selected and 0 when dark mode is active. Double-click `AppsUseLightTheme` and set it to 1 or 0 to see Windows instantly change from light to dark.

Changing this Registry value in a program produces some interesting results. Open Notepad and type the following, all on one line:

```
New-ItemProperty -Path HKCU:\SOFTWARE\Microsoft\Windows\CurrentVersion\Themes\Personalize -Name AppsUseLightTheme -Value 0 -Type Dword -Force
```

This PowerShell command sets `AppsUseLightTheme` to 0. Save it to the desktop as `DarkTheme.ps1` then

change `-Value` to 1 and save it as `LightTheme.ps1`. We will schedule PowerShell to run automatically and change themes based on the time.

Click Start, type `task scheduler`, then click it in the results. Select Task Scheduler Local and, under Actions, click Create Basic Task. Name it Dark Theme and click Next. Select Daily for the trigger and click Next, then set the time you want dark mode activated, such as 5pm. For the Action, select 'Start a program' and type `powershell.exe` into the Program box. Enter the following into the 'Add arguments' box:

```
-ExecutionPolicy Bypass  
-File C:\Users\YourName\Desktop\DarkTheme.ps1
```

This runs the file created in Notepad. Put double quotes around the path if it contains any spaces. Click Next and Finish. Repeat the process and this time create a basic task for the light theme. Set it to run daily at 8 AM and change the path to the `LightTheme.ps1` file.

You now have two scripts set to automatically run in the morning and evening that change the Windows mode to dark or light as appropriate.

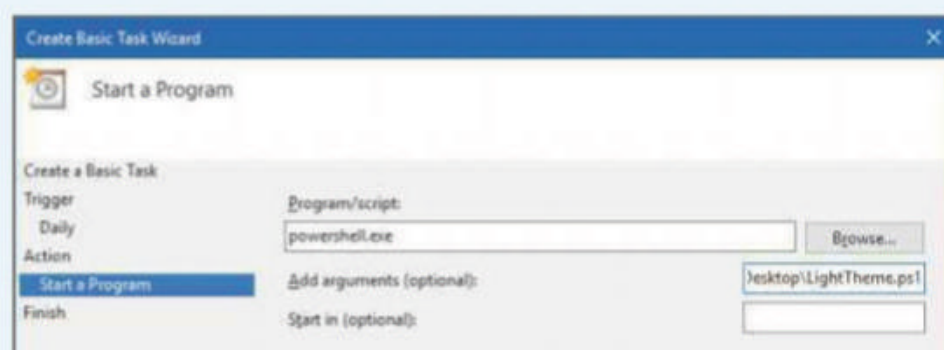
### Use your device's night light

Computer, phone and tablet screens emit blue light which, if you use them at night, can trick your brain into thinking it's daytime, making it harder to get to sleep. Open Windows Settings, System, Display and turn on 'Night light'. Click 'Night light settings' to set an automatic schedule.

On Android, open Settings, Display and look for 'Night light', 'Night mode', 'Reading mode' or 'Blue light filter'. Tapping this may bring up an option that lets you activate it on a schedule, such as from sunset to sunrise.

On iOS devices, go to Settings, Display & Brightness, Night Shift.

You'll see options for Manually Enable Until Tomorrow and Scheduled, which lets you set the hours it will come on.



*Create a task to automatically run dark or light Windows mode*



# Ask the Expert

**Roland Waddilove**, computer programmer and PC journalist since 1981, answers all your technical questions. Email us for help at [webuser@dennis.co.uk](mailto:webuser@dennis.co.uk)



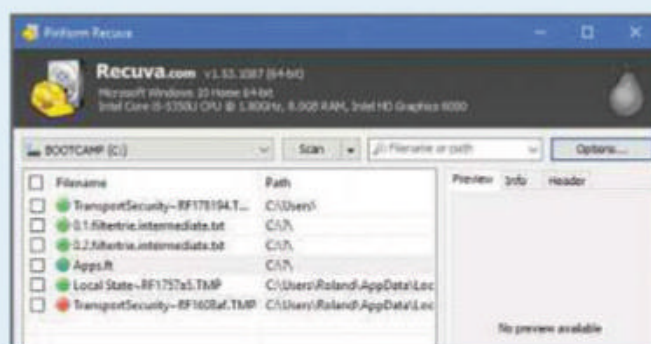
## GENERAL PC

### Recover a lost hard drive

**Q** Yesterday I discovered that I had accidentally wiped 1.5TB of files off my backup drive when I used it for a Linux install to test Manjaro ([manjaro.org](http://manjaro.org)). I had meant to make a bootable USB but selected the wrong drive. I've lost everything – music, Sketchup files, the lot – going back to 2009. Should I try to recover the data myself or pay a professional data-recovery service?

**Jack, via email**

**A** Many recovery tools that find lost files on drives work well but they



*Recuva finds and rescues deleted files on a drive*

are designed for small numbers of files, not 1.5TB. Recuva ([bit.ly/recu466](http://bit.ly/recu466)) and Data Recovery Wizard Free ([bit.ly/easu466](http://bit.ly/easu466)) are good tools, but this is a huge job and you'll need a second 1.5TB drive to save the recovered files to. It can be done, but it would be easier to use a professional service, if you can afford it.

from the web to try to predict what you want to type as you type it, whether that's a search term, email address, data entered into a form and so on. Windows doesn't store this information.

The email addresses you're seeing when you start typing aren't stored anywhere that you can access, copy and save elsewhere. It's a live search of the emails in your inbox. Each letter typed triggers a search and the results are displayed for you to choose from.

Some email services automatically add people that you email to your contacts but we can't tell whether One.com does this or not. In Gmail, for example, go to Settings and in the General section under 'Create contacts for auto-complete', select 'When I send a message to a new person, add them to Other Contacts so that I can add them to my contacts list'.

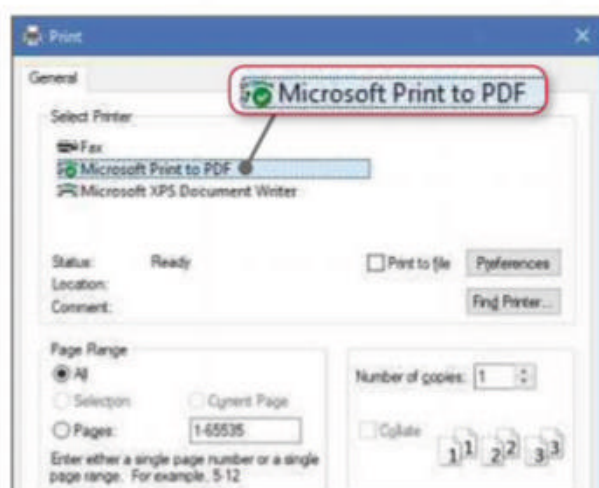
## GENERAL PC

### Convert photos to PDF

**Q** How do I turn photos into PDFs in Windows 10? I don't want to download any junk software.

**Mike Ashley, via email**

**A** You don't need to download anything because support for creating PDFs is built into Windows 10. When printing any file from any application – text or image – the print window lets you select from the available printers. Select the option 'Microsoft Print to PDF' and print as you would normally to a physical printer.



*Create PDF files from images and documents by 'printing' them*

You're prompted to enter a filename and a place to save it to.

An even simpler way is to right-click a file in Explorer, such as a photo, and select Print from the menu. Select 'Microsoft Print to PDF' and you can then choose paper size and image quality. If you select multiple files, you get the option to print one, two, nine or even 35 pictures to a page as a contact sheet of thumbnails. The images are automatically resized to fit.

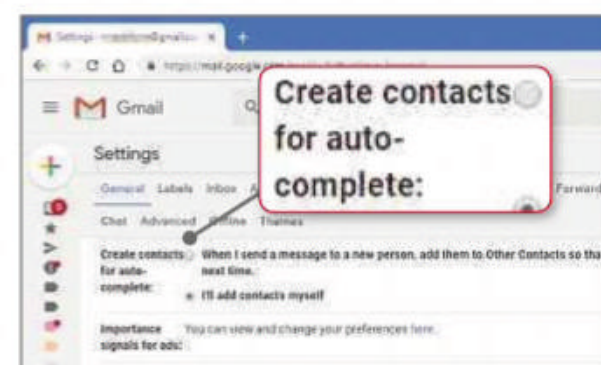
## BROWSERS

### Automatically add new email addresses to contacts

**Q** Where does Windows store the information it holds on email addresses? When I'm in webmail and I start to type an address that I've sent an email to before, a list of addresses appears for me to choose from. Some of the addresses are in my contact list, but is it possible to add the ones that aren't? I use One.com ([www.one.com](http://www.one.com)) for webmail but they have been completely useless in answering this query.

**Eric, via email**

**A** Web browsers use a mixture of stored information and information



*This setting automatically adds people you email to your Gmail contacts*

## HARDWARE

### Force your display to sleep

**Q** I set my laptop to switch off after a certain number of minutes, but it doesn't work and the screen continues to display. I am worried about screen burn (where an image is permanently etched on the screen) and unnecessary battery drain. How do I get the screen to switch off automatically?

**Robin Magnussen, via email**

**A** Screen burn was a problem with boxy old cathode-ray-tube monitors and early flat screens, but modern screens use a different technology that's more resistant to the problem, so you don't need to worry about that. However, the screen is the main consumer of a laptop's power, so setting

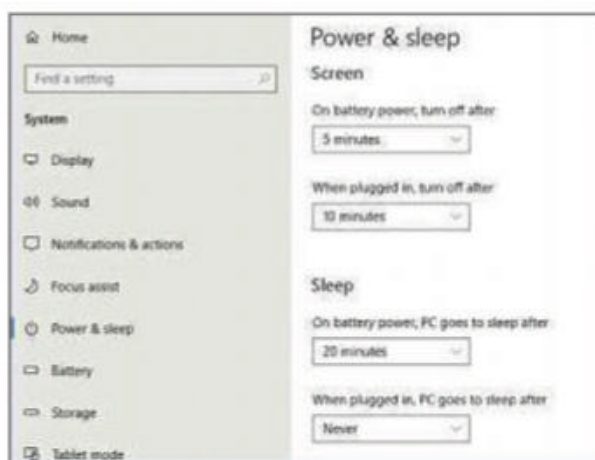




a short timeout and blanking it whenever possible will certainly help prolong your computer's battery life.

Open the Settings app in Windows 10 (Windows+i) and type **screen saver** in the search box. Click 'Turn screen saver on or off' and, in the window that opens, set the screensaver to '(None)', then click OK. Back in the Settings app, click System and select 'Power & sleep'. Under Screen, set the length of time you want to pass before the screen turns itself off.

The screen display will only turn off after the set time if no activity is detected. Some devices plugged into the computer – such as a printer, scanner, mouse, keyboard, joystick or game controller – can keep the display awake by generating signals or activity, and this may be your problem. Try unplugging all devices to see if the display turns off after the timeout. Plug each device back in one by one, testing as you go, to isolate the culprit.



**Set a short timeout for your laptop screen to save battery power**

## HARDWARE

### Run two external monitors from one laptop

**Q** I run an extra screen with my HP Pavilion laptop, so I can have my email open on the laptop screen and a spreadsheet on the other monitor. It's great for applying information from one screen to another, without having to open and close windows.

However, I started to notice that switching my focus from the small laptop to the larger monitor was causing eye strain, so I decided to switch to two 27in monitors, using the laptop to operate as the PC but leaving its screen idle. Unfortunately, the laptop has only one HDMI output and I can't figure out how to set up two separate external monitors.

I sought advice from a local PC superstore, where I was told that I would need an external graphics card to support two HDMI outputs. Bizarrely, the superstore doesn't sell this. I've looked

online but all I can find is an HDMI 'splitter', which is no good to me.

**Jonathan Smith, via email**

**A** The PC superstore is right: you need an external graphics card to drive an extra monitor. This is basically just a dongle that's plugged into a USB port on the computer. A USB 2 device will work, but screen resolutions are limited; a USB 3 device is better because the extra speed and power enables higher resolutions. Try a Cable Matters USB to HDMI Adapter, USB 3.0 to HDMI (£44.99 from Amazon at [bit.ly/cmusb466](http://bit.ly/cmusb466)) or Plugable USB 2.0 to VGA/DVI/HDMI Video Graphics Adapter (£37.95 at [bit.ly/plug466](http://bit.ly/plug466)). You should be able to run one external monitor from the laptop's HDMI port and the other from the USB dongle.

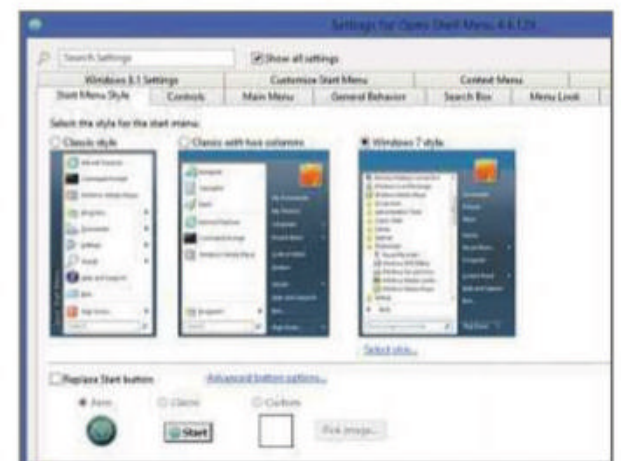
## GENERAL PC

### Downgrade Windows 10 to Windows 7

**Q** I had a Windows 7 PC for many years and was happy with it, but it recently developed a serious fault and wasn't worth repairing. I bought a new laptop and, of course, it came with Windows 10. I have tried but I can't get used to it, and would prefer to downgrade to Windows 7, which I am familiar with. Can I do this?

**R. Moore, via email**

**A** Any operating system can be installed if you have a bootable disc or USB flash drive, and a valid licence. However, there are potential pitfalls with Windows 7. For example, a new computer might use components that



**Open Shell makes Windows 10 look more like Windows 7**

weren't around when Windows 7 was popular, and the PC's manufacturer might only offer drivers for the version of Windows that was supplied with the computer.

Another factor to consider is that Windows 7 support will only be around for another year, after which you might not receive any security or bug fixes. Windows 10, on the other hand, is constantly updated and is more secure than Windows 7 anyway.

We recommend persevering with Windows 10. If you don't like the tiles on the Start menu, right-click them and select 'Unpin from Start'. When they are all hidden, you will be left with just the Start menu itself. Go to Settings, Personalisation, Start to customise the menu and remove or add tools to make it easier to use and more familiar.

Alternatively, you could try Open Shell Menu ([bit.ly/opsh466](http://bit.ly/opsh466)), which makes Windows 10 look and work more like Windows 7. This is a spin-off of the old *Web User* favourite Classic Shell, which stopped development just over a year ago.

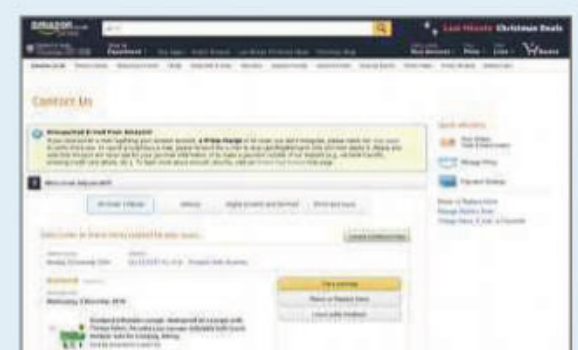
## SHOPPING

### How to contact Amazon via email

**Q** Why can't you contact Amazon UK by email? I have a seller account, which I use to sell second-hand books and CDs, and all I want to know is the URL I need to link to it.

**Adrian Bonnington, via email**

**A** To contact Amazon by email, you have to fill in a form on the website. Go to [bit.ly/amaem466](http://bit.ly/amaem466) and select the nature of your enquiry from the available options: An Order I Placed; Devices; 'Digital Content and Services'; and 'Prime and more'.



**To email Amazon, you have to work your way through its forms**

Work through the steps, selecting options that are designed to narrow down the subject of the contact request. At the end is an option to send an email. Type your message in the box and click 'Send e-mail'. Replies will be sent to the email that's registered with your Amazon account.



This fortnight Roland has been looking for tech bargains in the January sales



# Your Top Tips

Our pick of the best advice from our readers. Please send questions and answers to [webuser@dennis.co.uk](mailto:webuser@dennis.co.uk)

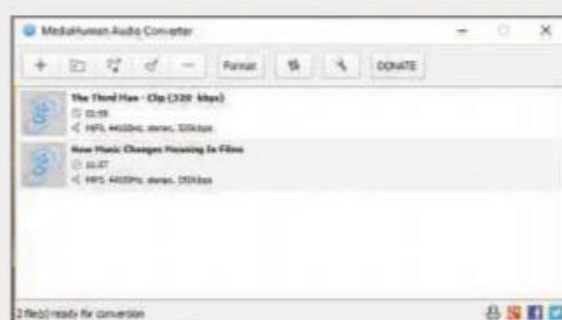


## TOP TIP

### SOFTWARE

## Convert any audio file for free

I've had problems for years converting media. In the past, I've used a paid-for program because the free ones never have the format I need. The alternative has been to upload the file to some dodgy-looking website. So I was over the moon to discover MediaHuman Audio Converter ([bit.ly/audio466](http://bit.ly/audio466)). This free tool makes it super-easy to convert music and audio from videos into just about any format you care to name. It works on both Windows and Mac OS, and VirusTotal declares the



**MediaHuman is an audio converter that's fast and free**

free version 100% free of viruses.

**Adrian Gilbert, via email**

Back Issues disc winner



### GENERAL PC

## View all your windows at once

When you have a lot of windows open, it can be difficult to see them all because they get buried under one another. For a quick way to sort them so they are all visible, right-click an empty space on the taskbar and select 'Cascade windows'. All open windows are resized and moved into an overlapping stack that lets you

see the title of each one and easily switch from one to another.

Another option when right-clicking the taskbar is 'Show windows stacked', which resizes and moves windows so nothing overlaps. A third option is 'Show windows side by side', which is similar to

stacked but arranges the windows like tiles. If you choose any of these options, pressing Ctrl+Z puts all the windows

back as they were before, so you can return to your messy display.

**Tom Palmer, via email**

### BROWSERS

## Move multiple Chrome tabs at once

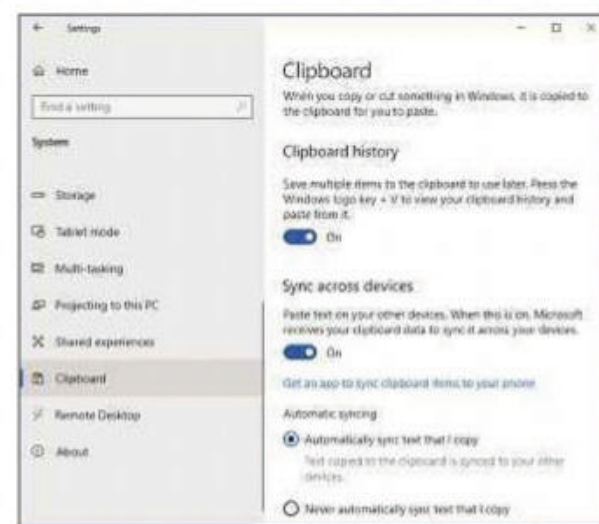
This little Chrome hack has saved me so much aggravation: if you ever need to move multiple tabs in your browser, or create a new window of specific tabs, there's an easy way to do it without dragging them one at a time. Hold down the Ctrl key, then select each tab with your mouse. You'll notice that unselected tabs are 'greyed out'. If all the tabs you want are next to each other, try holding down Shift then clicking the first and last tab. Now they're grouped together, you can move them as one.

**Ashley Damon, via email**

### GENERAL PC

## Sync the Windows clipboard

After poking around in Windows 10's Settings app (Windows+i) I noticed some new items and changes. In System, there's a Clipboard section that I don't remember seeing before. It has two switches: one lets you copy and paste multiple items from the clipboard; the other syncs the clipboard across devices. I guess if you have more than one



**Sync the clipboard across all your computers and store multiple items**

computer, you could copy something on one and paste it on another.

**Ron Walker, via email**

### WEBSITE

## Reorder your lists quickly

Does anyone else struggle to create lists in some sort of logical order? Sort My List ([sortmylist.com](http://sortmylist.com)) lets you create a list or open an existing document, then use its built-in tools to reorder and categorise the items. It's much easier than using a spreadsheet. You can even customise the appearance of your list. I find it useful to email myself a copy so I've always got it with me, but your readers may have even better ways to use this site. I'd love to hear what they think.

**Grace Highstone, via email**

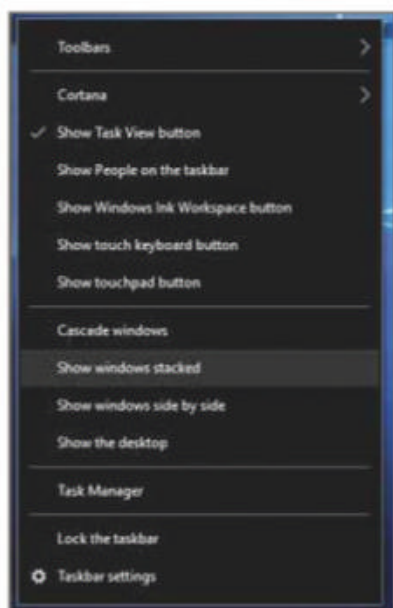


**Sort My List does exactly that**

### EMAIL

## Stop Gmail writing your emails

Gmail recently added the new feature Smart Compose, which suggests words and phrases as you type an email. Start



**Rearrange the windows on your desktop via the right-click menu**





typing to see the suggestions appear, then press Tab to accept them. If you're slow at typing, you may find it useful and could write emails in half the time. If you've not seen it yet, switch it on and give it a go.

However, if you've tried it and don't like it, you can switch it off. Click the cog icon, then click Settings. In the General section, about half way down, you'll see Smart Compose, with an option to either switch it on or turn it off. I tried it but found it more distracting than useful, as I can type reasonably quickly.

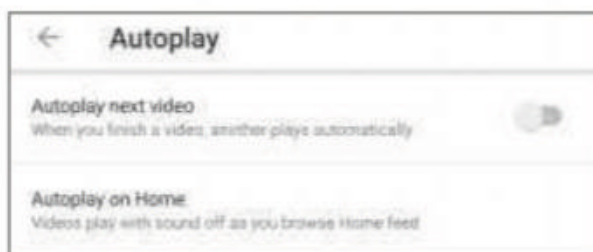
**Mary Hills, via email**

## ANDROID

### Stop YouTube auto-playing videos

YouTube has recently started showing video previews on my smartphone, which is helpful but saps all my mobile data. If your device supports it, this can be switched off by going to the app's settings and clicking Autoplay. This section lets you switch off autoplaying the next video, but more important is the option to turn off 'Autoplay on Home'. Tap this to save your data for videos you definitely want to watch.

**Becky Easton, via email**



*Change this setting to save mobile data when using YouTube*

## GENERAL PC

### Master the art of the screenshot

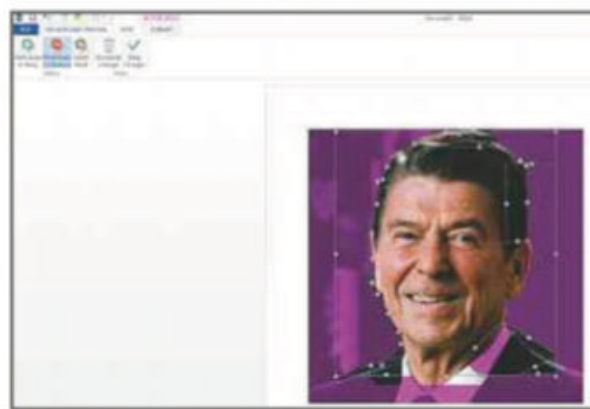
There are several different ways to take a screenshot: you can press the Print Screen (or sometimes 'Prt Scr') key to copy the screen to the clipboard, or you can press Windows+Print Screen to save the screenshot to your hard drive in the Screenshots subfolder of Pictures. Alt+Print Screen copies the current window to the clipboard. If you only want to capture part of the screen, press Shift+Windows+S. The screen dims a little and the mouse pointer becomes a cross. Click and drag over the part of the screen you want to save and it's copied to the clipboard.

**Callum Morris, via email**

## OFFICE

### Remove the background from images in Word

It's hardly well known for its image capabilities (ClipArt, anyone?) but today I learned that Microsoft Word can



**Microsoft Word provides tools for some basic image manipulation**

actually remove backgrounds from images. Insert the full image into your document, select it and click the Format tab in the Ribbon and choose Remove Background. Word then 'blanks' out what it thinks is the background in a vivid shade of purple. If it's not quite accurate, adjust it using the 'Mark Areas to Keep' and 'Mark Areas to Remove' buttons. This brings up a pencil, so you can shade what you want to keep or crop. Once you're happy, click Keep Changes and your background magically disappears.

**Harvey Skinner, via email**

## GENERAL PC

### Find image dimensions in File Explorer

You may already know that hovering your mouse over an image file lets you see its size and dimensions. The problem I have is that this method is unreliable because the 'tool tip' doesn't always

display. To avoid this, set your View to Details, then right-click any column name. In the context menu, select Dimensions, along with any other additional details you wish to see. An extra column appears with all the information you're looking for, without you having to hang around to see whether a tool tip is going to appear.

**Jonathan Barkley, via email**



*Add extra details to your File Explorer view*

## GENERAL PC

### Make Google your default Start menu search engine

The only thing I've ever used Bing for is to search for Google. It really annoys me that the Windows search box takes me to Bing search results, but I've discovered that I can use Search Deflector to change this to any other search engine. You can buy it from the Microsoft Store (£1.69 from [bit.ly/deflector466](http://bit.ly/deflector466)) or download the source code from Github ([bit.ly/deflect466](http://bit.ly/deflect466)). When you first install it, you'll be prompted to select a browser and choose one of 12 default search engines. Press Y to confirm your choice.

**Danny Scargill, via email**

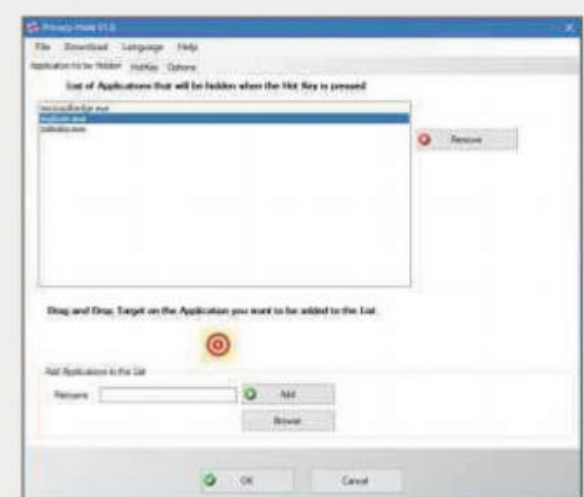
## BLUNDER OF THE FORTNIGHT

### SOFTWARE

### Hide apps from your boss in one stroke

My job can be boring (I basically print documents, then re-key the data back into a separate in-house program). I'm always ahead of my schedule so as you'd expect during an eight-hour shift, my mind and mouse are prone to wander to browser-based activities.

The company I work for can be quite strict, with certain bosses marching past cubicles 'keeping an eye out' for shirkers. For a couple of years, I'd spend my time cautiously glancing over my shoulder – and almost lost my job once when I was spotted performing an Alt+Tab from Cut the Rope to my work. Now, that's not a problem because I downloaded Privacy Hide ([bit.ly/hide466](http://bit.ly/hide466)). This tool lets you map a hotkey that instantly



**Close multiple programs at once with Privacy Hide**

hides the programs you select. I use Ctrl+O to minimise everything, but you can customise the setup to suit you.

**'EGB', via email**

**Have you managed to fix a PC-related disaster? If so, please send your story to [webuser@dennis.co.uk](mailto:webuser@dennis.co.uk)**





### OFFER OF THE FORTNIGHT

## Kaspersky Internet Security 2019 - on sale now

Our sister title *Computeractive* is now selling the new and improved 2019 edition of the multi-award-winning antivirus Kaspersky Internet Security at a special discount for readers

### WHAT'S NEW IN KASPERSKY 2019:

- ✓ Finds and removes dodgy browser extensions
- ✓ Identifies software that needs to be updated
- ✓ Gives you more control over which adverts are blocked
- ✓ More advanced options to keep malware off your PC



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# Readers' Helpdesk

Can you help your fellow readers with their computer problems? Send your questions and answers to [webuser@dennis.co.uk](mailto:webuser@dennis.co.uk)

## GENERAL PC

### Find every photo on your computer

**Q** I have lots of photos on my computer and they're all over the place! My New Year's resolution is to tidy up my hard drive once and for all. I use cloud storage and am in the process of moving from Dropbox to Google Photos, on *Web User's* recommendation. How I can find all the photos I've saved, without having to delve into every folder?

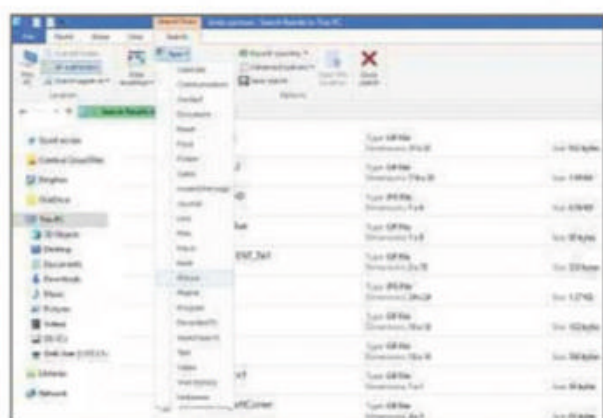
**'Irresponsible Shutterbug', via email**

**A** File Explorer answers your prayers on this occasion. Open This PC in File Explorer and click the Search Bar in the top-right corner. This opens Search options on the ribbon. Now look for a drop-down menu called Type (on older PCs, it may be labelled Kind). Click this and select Picture.

Alternatively, in the Search bar, search `type:=picture` or `kind:=picture` – it doesn't matter which – to hunt down every image stored on your computer. Now, either select all and drag and drop them into your dedicated Pictures folder – this may take some time – or right-click and select 'Open file location' to see which folder a picture is hiding in.

We can also recommend RegExp Download Organiser ([bit.ly/regexp466](http://bit.ly/regexp466)), a Chrome browser add-on that automatically directs every image you download into a specific Pictures folder within the Downloads folder.

**Steve Clark, Features Writer, Web User**

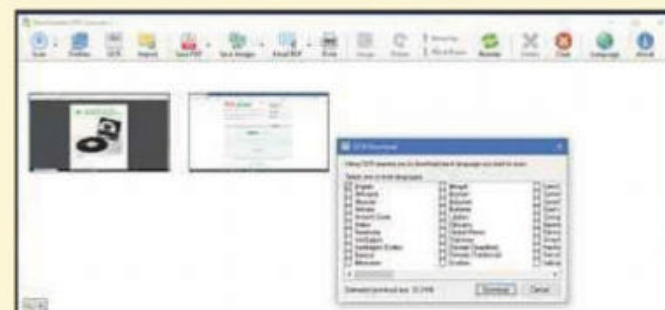


Use this hidden trick to find all files of a specific type on your computer

## READERS RESPOND

### Merge pages into a single PDF

**A** I just wanted to reply to robinsong's query about merging pages in a PDF. This can easily be done with Not Another PDF Scanner 2 ([www.naps2.com](http://www.naps2.com)). It may have an odd name, but it's a great free program. You can load both document pages and images, then combine them into



*Not Another PDF Scanner 2 – could it be the best sequel yet?*

a PDF at the touch of a button. It also works directly with many scanners.

**Tony Allaway, via Facebook**

## CAN YOU HELP?

[webuser@dennis.co.uk](mailto:webuser@dennis.co.uk)

You can seek help or suggest solutions to other readers' problems by emailing [webuser@dennis.co.uk](mailto:webuser@dennis.co.uk) or via [www.facebook.com/webusermagazine](https://www.facebook.com/webusermagazine) or [twitter.com/webusermagazine](https://twitter.com/webusermagazine).

## GENERAL PC

**Q** Despite the 'digital revolution', I'm still printing paper copies – both at work and at home. I often only need to print a few pages rather than the whole document – I abhor waste and like to do my bit for the planet. Can I print multiple, non-sequential pages in Microsoft Word, without having to keep pressing Print and selecting the page range each time?

**Janet Lumberman, via email**

## BROWSERS

**Q** Is there a way to manually update my browser add-ons? Chrome doesn't do it automatically the instant developers push out a new version, and sometimes days go by without an update. My current method is to uninstall and reinstall the newest version of the add-on, but that's hardly convenient. Hopefully there's a workaround for this.

**Michael Kenney, via email**

## iOS

### Use Google Assistant on your iPhone

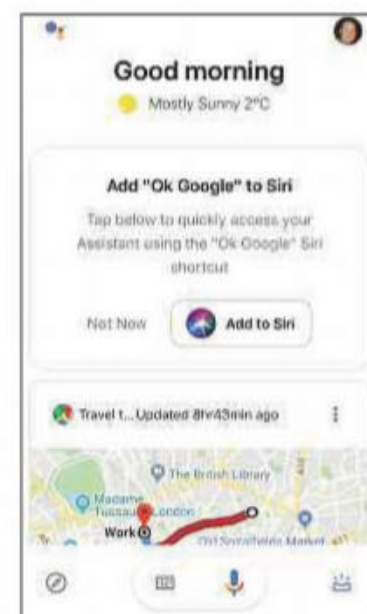
**Q** I don't hate Siri – I just think that Apple's AI assistant is severely lacking compared to Amazon and Google's. I have a Google Home, so it would be nice to use Google Assistant across all my devices, but I'll settle for Alexa. Can I do this without switching to Android?

**James Woods, via email**

**A** You're in luck, James. Google very recently added an update that lets you summon the Google Assistant when you use Siri on your iPhone. Download or update the Google Assistant app ([bit.ly/assistant466](http://bit.ly/assistant466)) from the App Store. Open

it and you'll be prompted to 'Add "OK Google" to Siri'. Tap the 'Add to Siri' button. You'll now need to create your command word – 'Hey Google' is a good choice – and that's it. Now, when you open Siri, you'll actually be using Google Assistant.

**Steve Clark, Features Writer, Web User**



Add Google Assistant to Siri from Google's updated app



## Star Email

### Chromebooks succeed where Windows fails

**M**ark Chorley's view that we should stop moaning about problems with Windows updates (Inbox, Issue 462, [bit.ly/webuser462](http://bit.ly/webuser462)) is typical of 'techy' users who don't acknowledge that there are many people who don't have the knowledge to recover from some computer problems.

Of course, there are those who argue that no-one should use anything they don't know how to fix, though I'd like to see them sort their car out if the engine-management unit failed! But on a more serious note: there are over a million people in the UK who suffer from various disorders, which means



they find any form of change disorienting and upsetting. This can manifest itself in severe 'meltdowns', and irrational or even anti-social behaviour.

What can computer publications or

computer professionals do? A key action would be to stop promoting Microsoft Windows as a solution for everything, and to make the general public aware of alternatives that are more suited to the needs of the disadvantaged and/or non-technical users.

A good example would be Chromebooks. Instead of harping on about the software that they can't run, tech journalists should focus on their benefits – especially cost, limited potential for malware and the availability of free tools that meet the needs of the typical web user.

**Steve Bastiman, via email**

**Back Issues disc winner**



### Broadband deals are basket cases

My broadband contract is coming up for renewal and it got me thinking about the prices we pay to our ISPs.

I have a deal with Sky and, at best, I get 28Mbps, which compared to some might seem fantastic, but I am paying for up to 38Mbps. It's a bit like shopping in a supermarket with a basket that I only put £15 pounds worth of items in, but when I get to the checkout they charge me £20 and say "well, that's all you have in the basket, but we have to charge you for how much you *could* fit in".

Where else in business can you charge for something and not provide it? I can't think of many other companies that can get away with it. I think it is up to Ofcom to sort this out, but I won't be holding my breath.

**Lenny, via email**



### The BBC is fantastic value for money!

I'm sorry, but I have to disagree with Martin Fletcher's email in Issue 464 ([bit.ly/webuser464](http://bit.ly/webuser464)), 'The BBC isn't worth the licence fee'. I find that the BBC is fantastic value for money – much better than the explosion of competitors nibbling at its heels such as Netflix, Amazon and the like.

What with the BBC's radio offerings, website, the iPlayer, News and now BBC Sounds, I use it in one form or another throughout the day, every day. I would point out to all the BBC's critics that

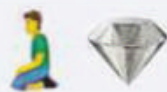
if the mandatory licence fee were removed, that would only increase its cost even further to individuals and ruin a globally respected British institution – and we're quickly running out of those!

At around £12 per month for your entire household, the licence fee is much cheaper than paying the £6-10 for Netflix and £8 for Amazon Video, which collectively adds up to much more. There are obviously those geeks who use Kodi to steal content but



### Quiz Answers: Issue 465

1 **Neil Diamond**



2 **Meat Loaf**



3 **Billy Ocean**



4 **Percy Sledge**



5 **Ringo Starr**



6 **Cat Stevens**



**WINNER!**

Well done to **Geoff Davidson** who wins a Web User Back Issues Disc



**TECH YEAR**

**1982**





that is, for the content producers, ultimately unsustainable!

*M Carne, via email*

## Motorola phones are robust and reliable

I don't normally jump to the defence of brands, but John C Kent's letter in Issue 462 ('Motorola phones are rubbish') will get us oldies a bad reputation if his bizarre rant against Motorola is allowed to go unchallenged.

All Android phones have apps that cannot be uninstalled. This is down to Google, not Motorola, and these phones actually implement a basic Android installation with very little 'crapware'. To describe the phones as 'almost unusable' is utter nonsense.

As for the manuals, a simple search for "Motorola user guides" takes you straight there. Perfectly easy.

And regarding his wife's missing £6, maybe Mrs Kent has made some phone calls! Phone calls go via 4G, not Wi-Fi, and will of course be charged for (unless Mr Kent has implemented Wi-Fi Calling, which I rather doubt).

I've used Moto phones for several years and have found them robust, reliable and capable. Their 'Best Buy' recommendation is well deserved and my next upgrade will be another Motorola!

*Ken Grove, West Sussex*

I refer to John C Kent's letter. I too am in my 70s and have had no problem with any of the three Motorola phones I've owned or passed on to family members. He really needs to bone up on smartphones, and not just learn the meaning of mobile data (and how to avoid using it if he wants to save money), but also investigate the various Settings options. There is actually a very good online help manual that is integral to every Motorola phone, and the 'crapware' he mentions is probably the same preloaded software that comes on every Android phone.

I am more than happy to recommend Motorola phones – they are great value for money.

*Graham Block, via email*

## What you say...

### FACEBOOK IS TESTING A TOOL THAT BLOCKS CERTAIN WORDS (SUCH AS SWEARING) FROM YOUR TIMELINE. WOULD YOU USE IT?

Unless it's really excessive, I'm not bothered. We all swear at times, so I don't see any use for a blocker.

*Gerrit Max*

I already have a filter – it's a two step process. Step one: request that the person stops using the word. Step two: unfriend them!

*Anthony Higham*

No, I'd rather know what kind of people posted on my page and block them! Swearing doesn't bother me but racist language does.

*Caroline Chapman @cornfedmind*

No, I wouldn't use it. Society today is scared of being insulted or hearing something it doesn't want to hear.

*Brian Brown*

Generation 'Snowflake' strikes again!

*Scott Alexander Winchester*

### MICROSOFT IS REPORTEDLY SCRAPPING ITS EDGE BROWSER. HAVE YOU USED IT?

Hated it on first sight. Didn't like how it handled Favourites. Microsoft should go back to the drawing board!

*Lynn Sharpe*

Looked at Edge a few times, but always went back to Chrome, which is quick, secure and easy to use.

*Michael Francis*

Tried it once but currently use Chrome because it syncs across my Android mobile and my other devices.

*Iain Kenworthy-Neale*

The browser wars are over chaps. There was a time when one was judged by one's choice, but now they are all much of a muchness.

*Richard Morgan*

### DO YOU LIKE MICROSOFT'S NEW LOGOS FOR ITS OFFICE PROGRAMS ([bit.ly/office465](http://bit.ly/office465))?

I think they were better before. With the old logos you could see straight away what type of program they represented. That's not the case with these new ones.

*John Hewett*

Same here. Change for change's sake. Yuck

*Lance Parkington*

Lost all identity. Simpler isn't always better.

*Caroline Alderson*

I don't believe in paying for this overpriced suite with loads of stuff I'll never use, when this badger-haired surfer can use OpenOffice ([www.openoffice.org](http://www.openoffice.org)) for free. Logos make no difference to me.

*Mark Jefferies*

### MOBILE DOWNLOAD SPEEDS IN MANY COUNTRIES ARE NOW FASTER THAN WI-FI ([bit.ly/speeds465](http://bit.ly/speeds465)). WHICH IS FASTEST IN YOUR EXPERIENCE?

3G+ (aka HSDPA) works faster on Three UK than 4G works on EE (same location). Wi-Fi is between the two on speed, but uses less battery when connected via a router, compared to using a SIM in a phone.

*Björn @ImageOnFilm*

3G/4G is better. Wi-Fi speed depends on the distance to the router and the obstacles. I'm still waiting for Li-Fi.

*Max Madd Music*

Using O2 my 4G is around 17Mbps. Using BT Wi-Fi, my connection is 5Mbps at best.

*Fitzsip @fitzsip*



# ! Page 404



Why buy a new PC when you can just rent one over the web? asks **Barry Collins**

## Will 2019 be the year of the cloud PC?

I bought a powerful new PC at the end of last year and it only cost me £27! Well, £27 per month, if you're going to be stickler for accuracy. It's powerful enough to run all the latest games, it doesn't take up an inch of space in my office and it's doing no damage whatsoever to my electricity bills (at least, not directly).

In fact, it's not in my house at all. It sits in a data centre just outside Paris. I can access my new PC from any old PC because, just like Netflix, my new PC is streamed over the internet. Once it's running full-screen on my old laptop, it is to all intents and purposes as good as having a new £2,000 PC gracing my office space. It is the future of computing, I'm sure of it.

My new PC came from a company called Shadow ([shadow.tech](https://shadow.tech)), and that £27 per month buys me a pretty high-end PC with a powerful processor,

12GB of RAM, 256GB of storage and an Nvidia GeForce GTX 1080 graphics card. That spec is regularly upgraded, so you always have the latest hardware, not a computer that's decaying the moment you get it home.

The graphics card is crucial, because my main computer is a laptop with no dedicated graphics. It's plenty powerful enough for everything, except 3D games.

Instead of going out to buy a desktop PC or an awkward external graphics card to run PC games, I can simply fire up Shadow. If you've got kids or grandchildren begging you to upgrade their PC to play Fortnite, for example, this is a much cheaper way of doing it.

“If you've got kids or grandchildren begging you to upgrade their PC to play Fortnite, this is a much cheaper way of doing it”

fraction of the time it would take on my laptop.

Shadow simply runs as an app on any of my current computers. It doesn't matter how slow or decrepit

the old computer is, because all the performance is done at the other end in Paris. I can play the latest cutting-edge games on a long discarded, dust-encrusted six-year-old laptop, and plug in keyboards, printers, disk drives and other devices to use with my Shadow PC – and there's no noticeable lag.

Of course, you need a fast and stable broadband connection to pull this off – any fibre-grade connection should be fine, but you won't get a smooth ride on ADSL. The biggest potential downside is that if your broadband connection goes down, you lose your computer too – but how useful is a regular computer without a broadband connection these days anyway?

I'm convinced this is the future of computing, not least because Microsoft has fallen head over heels for cloud computing and the subscription models. You may already pay a monthly fee for Microsoft Office and other software, so why not wrap it all up in one price and throw in the PC too?

I'm so sure I know what I'm talking about that if Microsoft doesn't launch its own Cloud PC in 2019, I'll eat my keyboard.



Illustration: Andrew Torrens



**WebUser**

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# ENJOYED THIS ISSUE?

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**T**hank you for reading this issue of *Web User* – we hope you found the tips and advice useful. The good news is that you don't have to wait too long for the next issue. If you subscribe to *Web User* by **Monday 14 January (8pm)\***, you'll receive it through your letterbox before it's available in the shops!

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