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13 weird and wonderful niche Linux distros of 2020

By [Andrew Gregory](#), [Nick Peers](#), [Alex Cox](#), [Nate Drake](#) (Linux Format Issue 152) August 22, 2019

Try something different from the world of Linux



Introduction

Note: Our weird and wonderful niche Linux distros roundup has been fully updated. This feature was first published in December 2011.

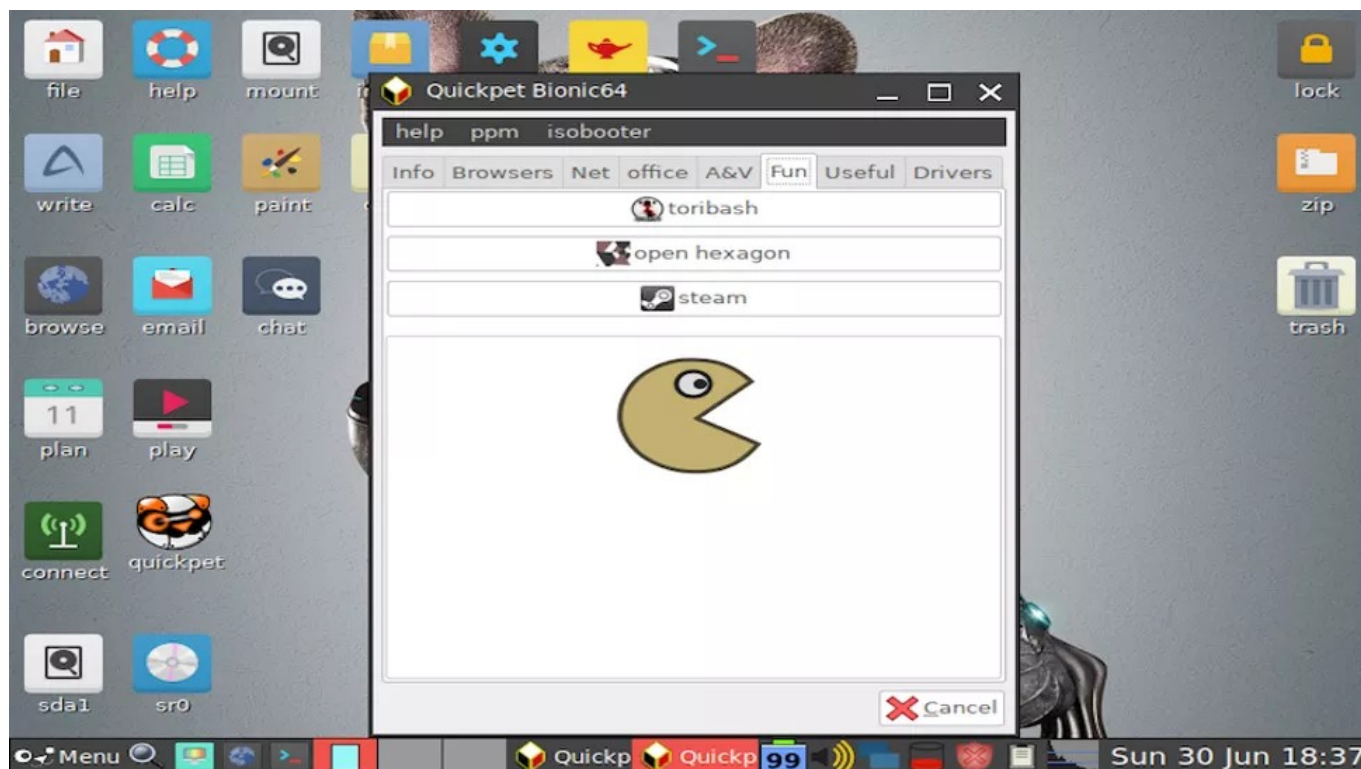
Fed up with the bog-standard Ubuntu, Debian, Fedora and so on? Looking for a distro that reflects your individuality? In this roundup we've discovered no less than 13 of the quirkiest and most useful distributions that Linux has to offer.

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They include one distro which is geared towards those with an interest in crime scene investigation, and an OS which is so light it will run on a PC from the mid-80s.

Read on to find out more about each of these interesting distros. Before we begin, however, do note that not all of these operating systems are suitable for everyday use without extensive modification – so consider running them from a Live CD/USB or within a virtual machine, rather than installing them on a computer.

- [10 of the best Linux distros for privacy fiends and security buffs](#)
- [5 of the most popular Linux gaming distros](#)
- [10 best Linux distros: which one is right for you?](#)
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1. Puppy Linux

It's small, zippy and eminently loveable: for 16 years the bounder that is Puppy Linux has stolen Linux users' hearts with its cutesy graphics, inhumanly fast load times and simple interface.

The OS was originally created by Barry Kauler in 2003 and has since been nurtured by a number of developers. Each new version of Puppy is based on the most recent LTS (Long Term Support) release of Ubuntu. At the time of writing, this is Ubuntu 18.04 Bionic Beaver, hence the codename of version 8.0: Bionic Pup.

Puppy Linux is designed to load directly into your machine's RAM from a live CD or USB. This makes the OS perfect for quick and dirty data retrieval from a corrupted system, as well as offering an easy way to bring life back to older machines, finding a use for them.

Indeed, Puppy can be installed on a wide variety of systems, with requirements so light that it supports hardware considered obsolete by modern standards. The ISO weighs in at 354MB total. As Puppy Linux loads directly into your RAM, you end up in a desktop environment which responds near-instantly to clicks and commands.

Bionic Pup is also compatible with Ubuntu repositories which gives users access to a vast selection of software.

- [You can download Puppy Linux here](#)



2. MuLinux

The classically educated reader might be able to guess that MuLinux is a [small distro](#) – the Greek letter 'mu' is the SI designation for one millionth.

Mu was designed to be a minimal distro along the lines of Puppy or Damn Small Linux, but it's considerably more miniscule. The OS was developed to run from floppy disks, so only requires 20MB of hard disk space and 4MB of RAM. It will run on any machine with an Intel 80386 processor or later. This particular processor was released in 1985 so it's safe to say that MuLinux can breathe life into ancient hardware.

Development of MuLinux was frozen in 2004. As mentioned, it was originally designed in such a way to allow the user to install and run a basic Unix-like shell from a single floppy disk, then install additional packages such as server tools from separate disks.

- [Download the base floppy disk and packages for MuLinux here](#)



3. CAINE Linux

CAINE (which stands for Computer Aided INvestigative Environment) is aimed at users with an interest in crime scene investigation. It's an Italian flavor of Linux designed for forensic analysis and other types of police work.

CAINE includes a variety of CSI tools such as the Autopsy Forensic Browser, stenography tools and The Sleuth Kit. UFO (Ultimate Forensic Outflow) supports full, detailed recovery analysis such as browser history, password recovery, malware, log viewers and network analysis tools.

CAINE Linux is built around four objectives which include an interoperable environment that supports digital investigation, a user-friendly interface, and a semi-automated compilation of the final report. The ISO file weighs in at 3.8GB.

- [Download CAINE Linux here](#)



GoboLinux adopts a macOS-like approach (which Apple in turn took from RISC OS), and stores all files associated with an application in a single folder in '/Programs'. For instance, if you have a program named 'foo' all files pertaining to it would be stored in '/Programs/foo'. You can still install multiple versions of the same application if you wish, for example, for separate users on the system. This is managed by GoboLinux's file virtualization tool [Runner](#).

- [Download GoboLinux here](#)



5. GNewSense

If you like software freedom, you'll love GNewSense. The OS has had all non-free software removed, including binary 'blob' files in the kernel, so-named as they use proprietary code. Unfortunately, many of these blobs are drivers for wireless networking cards, so GNewSense may not work well with laptops.

On the plus side, it has removed or renamed software that doesn't fit the Free Software Foundation's definition of freedom. The OS uses a modified version of Debian's IceWeasel browser, for instance, to avoid using the Firefox trademark. GNewSense doesn't provide any links to non-free repositories, making it even more free than Debian.

After a three year hiatus, the latest version of GNewSense, codenamed Ucclia, was released in May 2016 and is based on Debian 7. It can be booted as a Live CD to help you check whether it supports your hardware.

- [Download GNewSense here](#)


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Welcome to Linux From Scratch!

Linux From Scratch (LFS) is a project that provides you with step-by-step instructions for building your own custom Linux system, entirely from source code.

Currently, the Linux From Scratch organization consists of the following subprojects:

[LFS](#) :: Linux From Scratch is the main book, the base from which all other projects are derived.

[BLFS](#) :: Beyond Linux From Scratch helps you extend your finished LFS installation into a more customized and usable system.

[ALFS](#) :: Automated Linux From Scratch provides tools for automating and managing LFS and BLFS builds.

[CLFS](#) :: Cross Linux From Scratch provides the means to cross-compile an LFS system on many types of systems.

[HLFS](#) :: Hardened Linux From Scratch focuses on building an LFS system with heightened security.

[Hints](#) :: The Hints project is a collection of documents that explain how to enhance your LFS system in ways that are not included in the LFS or BLFS books.

[LiveCD](#) :: The LiveCD project provides a CD that is useful as an LFS build host or as a general rescue CD.

[Patches](#) :: The Patches project serves as a central repository for all patches useful to an LFS user.

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6. Linux from Scratch

Do you love Linux? Do you really love it? Because you're going to need to if you want to follow the Linux from Scratch program. Not (technically) a formal distro, LFS is more a set of tutorials and packages designed to help you set up your own completely bespoke Linux system. From scratch.

That means first creating a temporary system with which to compile the real thing, building your own partitions and file system, and installing every element of a functioning Linux system painstakingly by hand. Oh, and figuring out exactly why it isn't working.

The documentation comes in freely downloadable volumes, charmingly entitled 'Stable' for the latest release and 'Development' if you want to check out the version that creator Gerard Beekmans and his team are working on at this very moment. There's also a systemd version, which uses the latest in system initialisation techniques.

One of the easiest ways to get started is to read the freely downloadable LFS Book, which takes you through all the steps for constructing your own system. As of LFS version 8.0, the book has undergone a [major rewrite](#) with hundreds of new packages now available.

- [Download Linux from Scratch here](#)



7. NixOS

NixOS has grown from a simple research project in 2014 to a fully-fledged independent operating system, optimised for cutting-edge system configuration management. It qualifies as weird and wonderful due to the fact that the OS, kernel, and other system files are created using the integrated Nix package manager.

While Linux traditionally lumps packages together in various system folders such as `/bin`, Nix stores them in a single location (`/nix/store`).

The advantage of this is that all upgrades are 'atomic'. With traditional Linux distros, upgrading one package can cause others to break if they have shared dependency. Nix's crafty package segregation means that all updates and upgrades can be reversed. This makes for a very stable system.

- [Download NixOS here](#)

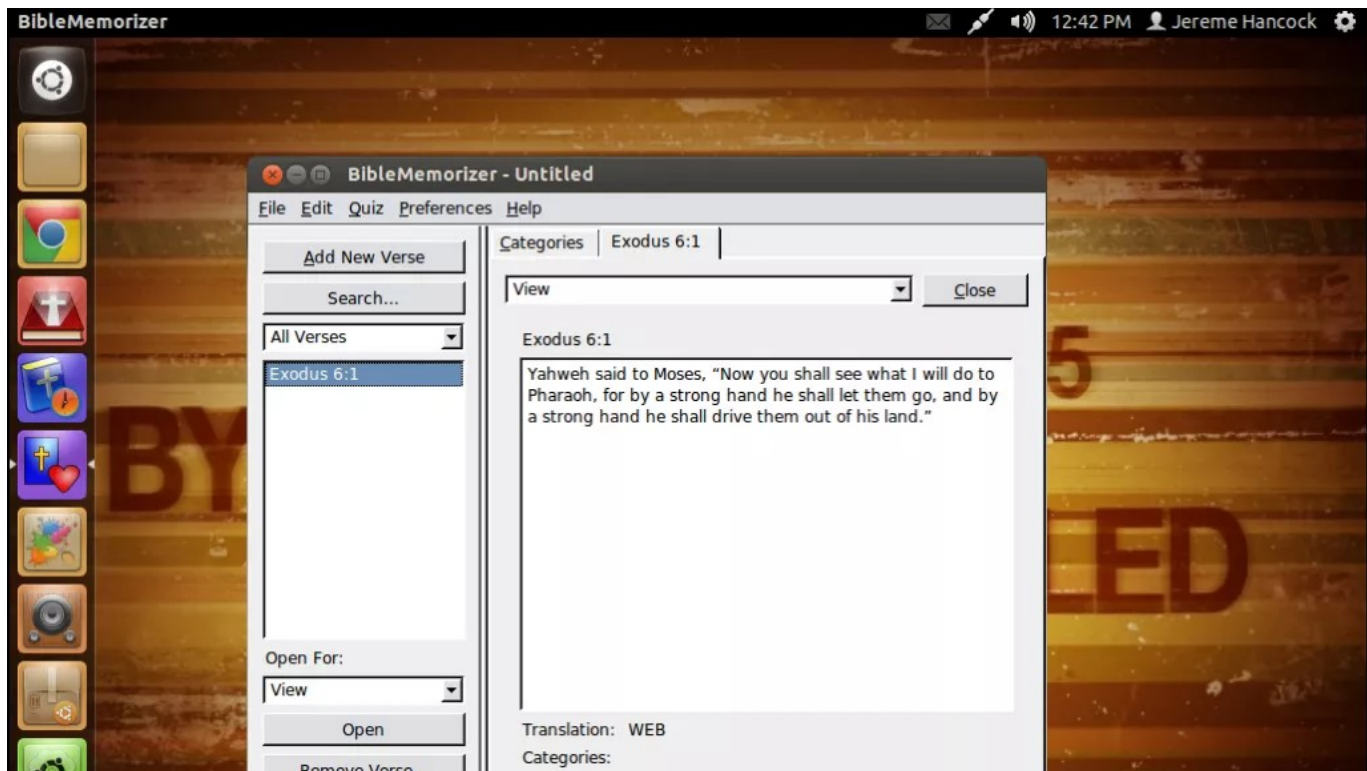
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8. Moebuntu

Moebuntu is an upgrade for existing Ubuntu installations designed especially for fans of Manga and Anime, and it shows how the OS can be tweaked or fine-tuned to the extreme. There's an automated setup tool which will apply the colourful desktop and icon themes – prepare yourself for some alarming hues of pink if you do so. There's also a suitably rosy dash icon as well as an array of wallpapers and Manga-style fonts.

As gaudy as this may appear, the advantage of Moebuntu is that it has kept pace with the times. The latest release supports Ubuntu 18.04 so unlike some of the other distros we've highlighted, you can enjoy a taste of the weird and wonderful while having an up-to-date OS.

- You can install the Moebuntu desktop theme, icon packs, wallpaper and Dash icon by following the steps on the [Moebuntu website](#)



9. Ubuntu Christian Edition

Having given the devil his due with Ubuntu Satanic Edition earlier in this article, it's only fair that we let Christians rejoice about the version of Linux crafted just for them.

Ubuntu CE offers a non-denominational version of Linux for Christians, based on the standard Ubuntu builds. The latest version is built on Ubuntu 12.04 LTS (long term support).

The stated aim of the project is to try to encourage more people within the Christian community to realise the power of Linux and switch to Ubuntu.

The latest release incorporates Xiphos, a bible study tool, as well as worship presentation software OpenLP and Quelea, which can be used to project bible verses, hymns and so on.

Ubuntu CE also includes the powerful 'Dansguardian' content filter providing advanced parental controls. The wallpaper has been thoughtfully chosen with Biblical quotes.

- [Download Ubuntu Christian Edition here](#)

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10. Scientific Linux

There still exists among our Windows-using cousins the risible idea that Linux isn't good enough to take over on the desktop – that the continued dominance of Microsoft on the desktop is inevitable, because Linux is not up to the job technically.

This can easily be refuted. All of the top 500 supercomputers in the world now run Linux. Also, the cleverest people on the planet – scientists searching for clues about the beginning of the universe – also use Scientific Linux at the CERN laboratories.

This distro is a rebuild of Red Hat Enterprise Linux and is actively developed by people within CERN, Fermilab and ETHZ. Anyone can download and install it on their machine – you don't even need a PhD in theoretical physics.

- [Download Scientific Linux here](#)

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11. Parted Magic

Parted Magic is a Live distro that comes with all the tools you need to fix broken partitions. If something won't boot, this is what you use to fix it, and that goes for both Linux and Windows machines. It is most often used as a tool, although technically it is a Linux distribution in its own right.

Parted Magic also allows for secure disk erasing (making sure that data is really nuked), benchmarking, and disk cloning among other features. As a troubleshooting aid, it's indispensable, but it will cost you \$11 (around £8.70, AU\$15.60) to download direct from the author's site. For an additional fee you can order it preinstalled on USB or DVD.

- [Download Parted Magic here](#)

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12. HML

This distro is drastically out-of-date and about as niche as they come, but HML – or Hannah Montana Linux – is the perfect desktop for fans of Miley Cyrus' heady Nickelodeon days. Enjoy a pink Hannah Montana-themed KDE desktop, featuring Tux with the double-life teenage singer's logo emblazoned on his belly.

It also includes a custom Hannah Montana boot screen, theme, icon set and wallpapers. The website helpfully adds that it is not vulnerable to Windows viruses.

There's no reason to use HML unless you're a diehard Hannah fan, but since it's based on Kubuntu using KDE 4.2, there are plenty of packages to install. You could even upgrade it to the latest version of Kubuntu by running the command 'sudo apt-get dist-upgrade' from the Linux Terminal. Alternatively, diehard Montana-fans can download the icons and/or theme pack and install it on top of their existing KDE install.

- [Download HML here](#)

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13. Zeroshell Linux

Zeroshell comes from Italy, and it's a small Linux distro designed to run as a Live CD for servers or embedded devices such as routers. You can even install it onto a Raspberry Pi.

It has no GUI but you can access and configure it from your web browser. Zeroshell is a lot more powerful than the average router's web interface allowing you to perform activities such as assigning IP addresses, DHCP provision and changing DNS settings. It can function as a proxy, VPN access point or a firewall, and can interface with any network appliance.

Zeroshell is in active development: the latest version (3.9.3) was released in August 2019.

- [Download Zeroshell Linux here](#)

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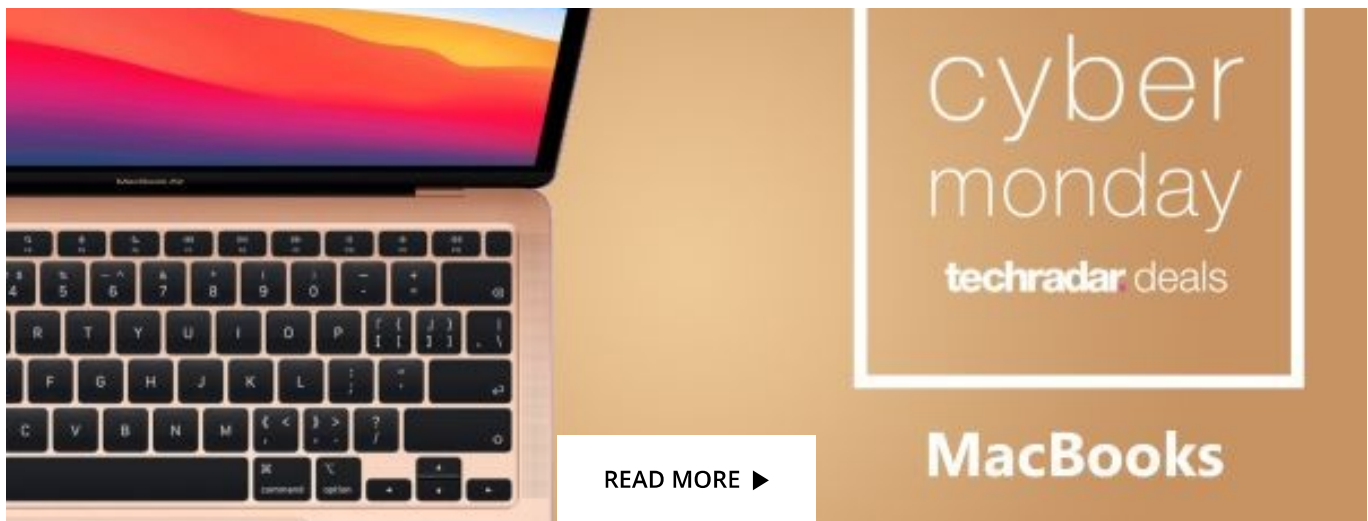
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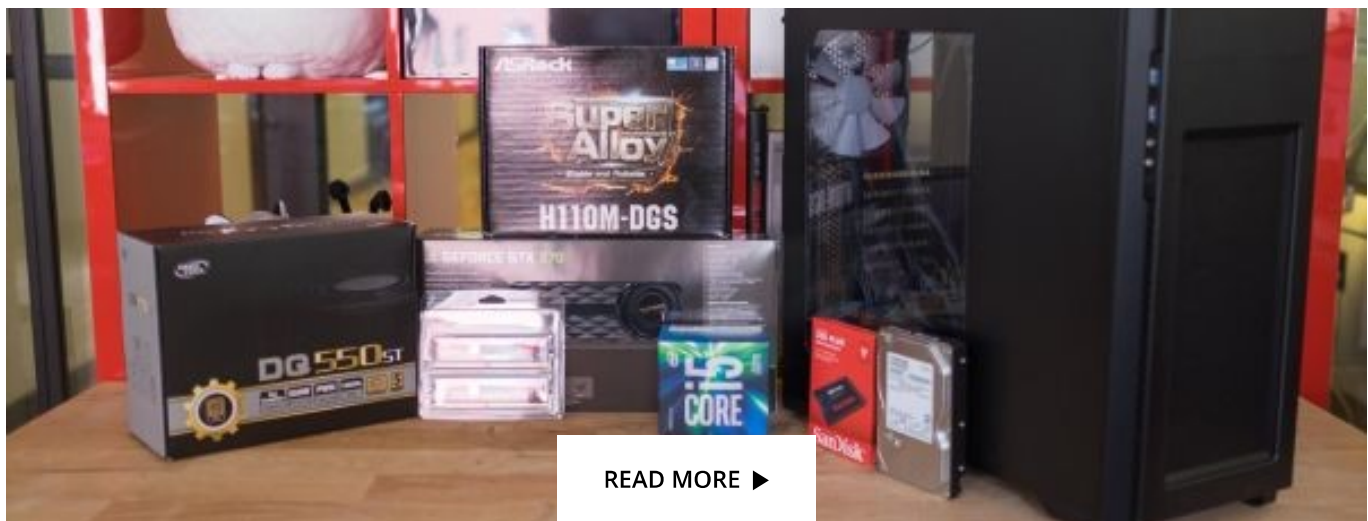
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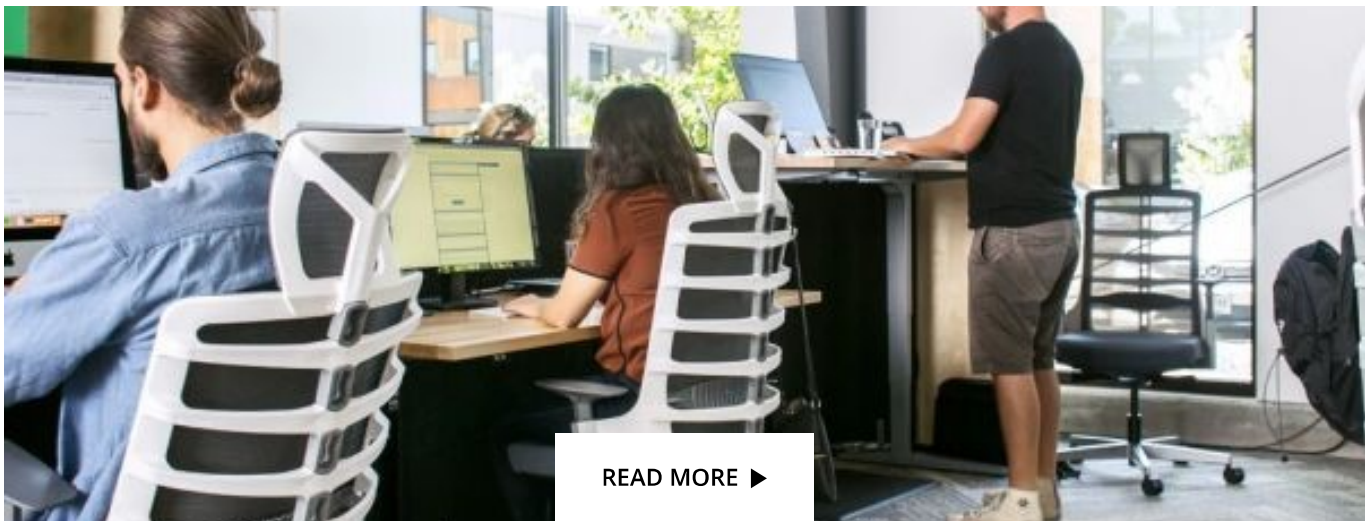
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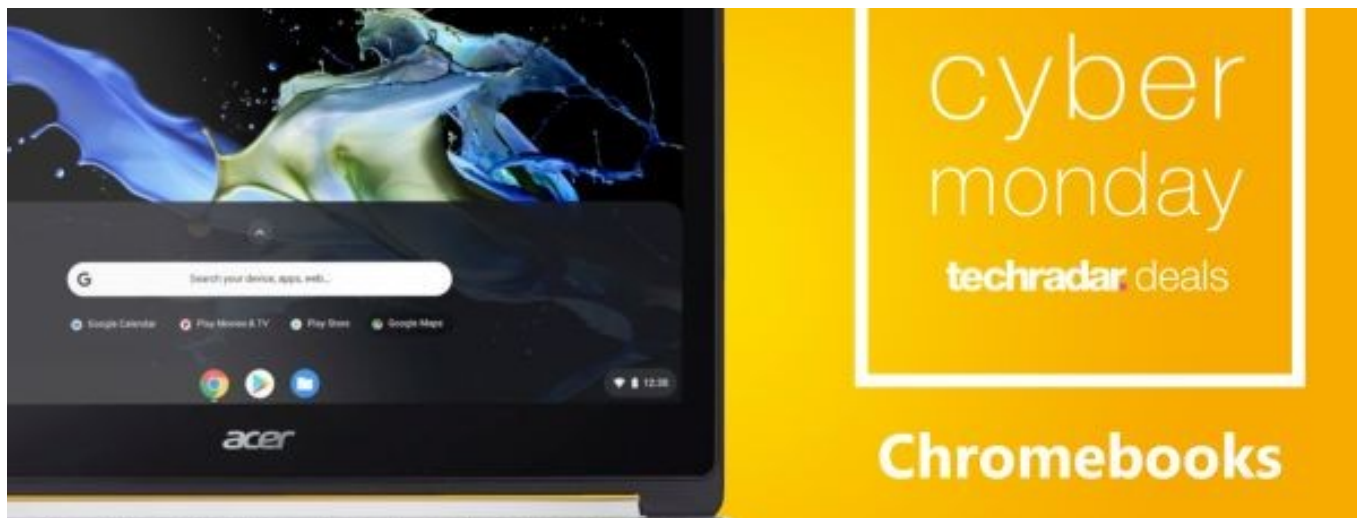
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