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TECHNOLOGY NEWS

Memories of the future



Small, tough and efficient, solid-state laptops are here.

By Mark Harris

Apple has launched a new type of ultra-lightweight laptop that points the way to a future of lighter, tougher and more energy-efficient computers. With a thickness of just three-quarters of an inch, the MacBook Air claims to be the world's thinnest laptop. However, amid all the "size zero" hype, many have missed the feature that makes the Air really innovative (or "thinovative", if you can stomach Apple's marketing speak). In place of the traditional 80GB hard drive, buyers will instead be able to opt for 64GB of solid-state storage (the same technology used in digital-camera memory cards).

Ditching the old type of hard drive is useful for several reasons. First, although modern laptops are intended for people on the move, virtually all of them are extremely fragile — drop or bump them at your peril. That's because they're designed around hard

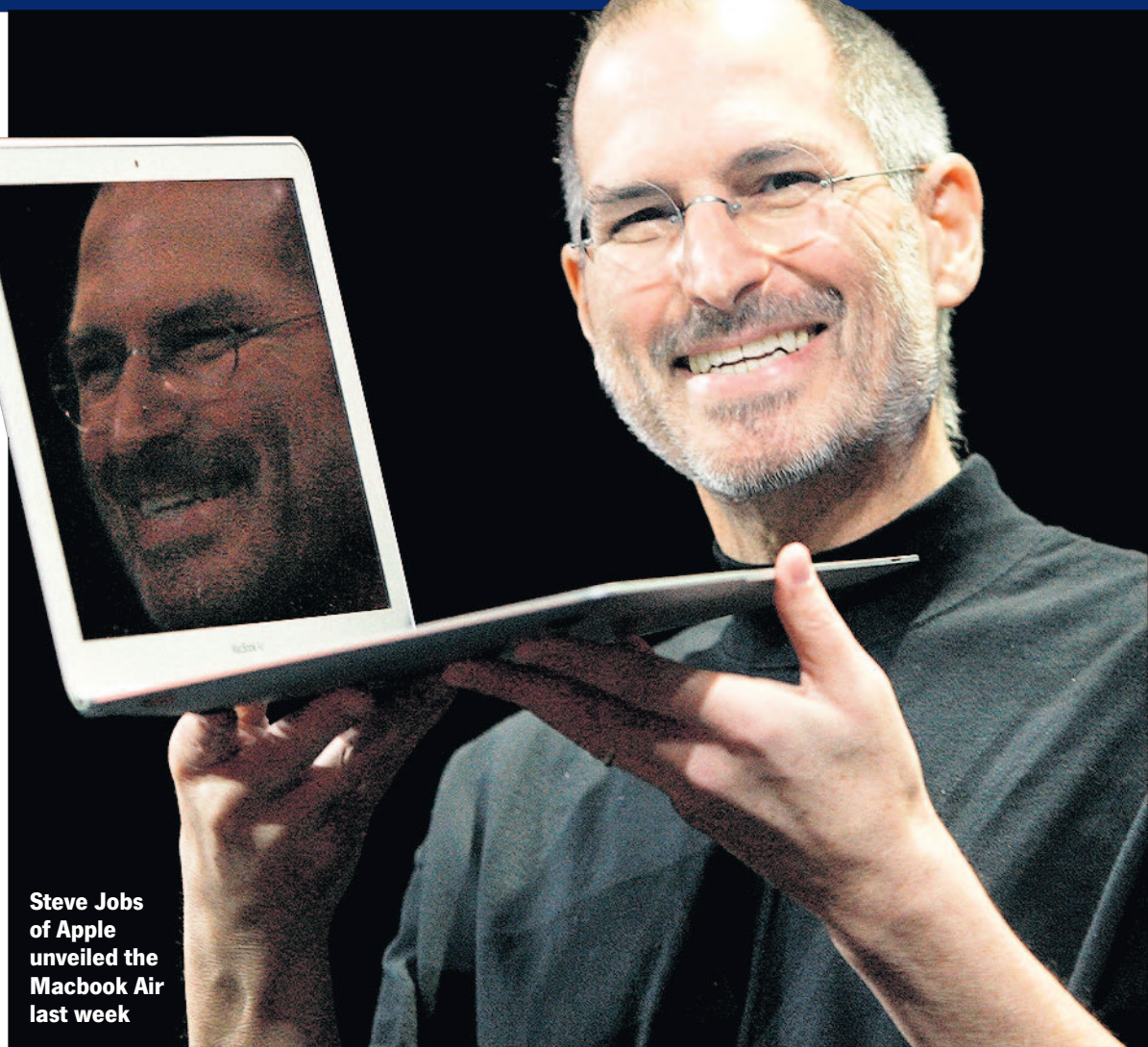
drives that store and read information from small magnetic disks spinning thousands of times per minute, which are notoriously susceptible to damage if knocked.

Second, spinning that disk around consumes a lot of power, and generates annoying heat and noise.

Solid-state drives (SSDs) contain no moving parts at all. They have excellent shock resistance (making them more robust), they require less cooling and they use much less power. Crucially for laptops, they're also as much as 50% lighter than traditional hard drives. And as they don't have to accelerate from a standstill whenever you want to get at your data — as is the case with a conventional hard-disk drive — they can help your computer to work faster.

So why don't all laptops use SSDs? Until recently, flash memory has been far too expensive to use in anything larger than MP3 players and mobile phones. And if you check out Apple's premium for the MacBook Air's solid-state drive (a whopping £830), you might think it still is.

But the technology is evolving at a furious rate: SanDisk, a US maker of flash memory, recently unveiled a 72GB SSD, and this was followed by Samsung announcing a 128GB drive. Even larger units, such as an 832GB monster from BitMicro, are on the horizon. Of course, traditional hard drives are also increasing in capacity



Steve Jobs of Apple unveiled the MacBook Air last week

Jeff Chiu

and features, and remain much cheaper. At the Macworld expo last week, Apple also launched the Time Capsule, a wireless hard drive and router that provides a terabyte (1000GB) of storage accessed over your home wi-fi network, for £330.

SSDs may be too costly for most

people today, but as we've seen with the iPod and iPhone before, where Apple leads, others follow, and often with more reasonable prices.

Asus's budget Eee PC (from £200) has a modest 2GB-8GB of flash storage, Sony's ultra-portable Vaio UX1 computer (£700) packs a

generous 32GB, and Lenovo is about to launch the stylish IdeaPad U110 (price to be confirmed), which matches the Air's 64GB of storage.

It may be costly now, but solid-state memory is still in its infancy, and it's an innovation that won't just vanish into thin Air.

SCUBA DO

Liquid Image Underwater Digital Camera Mask

£99 (£50) www.liquidimageco.com 00 1 916 698 6097

This clever hands-free gadget combines a good-quality scuba mask and a 5Mp digital camera. The idea is that you line up your underwater targets with crosshairs etched into the tempered glass lenses, then press a shutter button on the mask.

The fixed-focus lens can capture both still photos and modest-quality video clips. There are LEDs to show which mode you're in, but no screen to view your subaquatic snaps. And

while the results are colourful and bright, they're unlikely to give the Blue Planet team any sleepless nights.

You can boost its 16MB internal memory (enough to store about 30 images) by popping in a MicroSD card. Real divers intending to test the device's 30-metre depth rating should be warned that there's no flash to illuminate the watery deep. The mask will be available from American online stores in a few weeks.



SNAP HAPPY

Polaroid Instant Mobile Photo Printer

£TBC www.polaroid.com

After InGear reviewed a micro-printer by a company called Zink (Zero Ink) last autumn it was no surprise to find that a camera-maker had snapped it up and was launching the product under its own brand. The new Polaroid printer is slightly larger than a deck of cards and will connect to a camera by a USB cable or to a mobile phone by Bluetooth. It has no ink cartridges and instead relies on dye crystals embedded in sheets of blank 2in x 3in Zink paper. The tiny photos look pretty good and can even be peeled off their backing to be stuck on, say, a fridge or diary. The prints are expected to cost about 15p each.



ECO-SAILOR

SkySails for yachts

£TBC www.skysails.info 0049 40 7029 9444

Yacht owners will be intrigued to know they can increase their sailing range and speed and also save fuel by adding a SkySails system to their vessel. Previously made only for commercial-sized vessels, the SkySail acts as giant kite. The maker claims that, once raised skywards on a line, it generates two to three times the thrust of sails secured to masts; when used in tandem with an engine, it will roughly double the yacht's speed. It can also be adapted to run a generator that will recharge batteries on the yacht, which, in turn, can power a diesel-electric engine. The era of the hybrid yacht is clearly here, but there is, apparently, a long waiting list.

