

New model action camera even better

CHRIS GRIFFITH

I'm ripping through exercises in the gym at an incredible rate. Next thing, I'm sprinting halfway across a nearby oval in four seconds. That's according to vision taken by the GoPro Hero8 Black that I have been trialling. Then I'm in Tokyo, motoring impressively around Yogi's Park.

To come clean, I have been using the camera's new TimeWarp, one of a slew of features on the latest model. On one level, the GoPro is the simplest of cameras to use. You press the side button, select from video, photo and time lapse, and hit the shutter button. Done. You just concentrate on the running, cycling, sailing, surfing, walking or whatever activity takes your fancy.

On another level, GoPro is a long story. The iconic little action camera is now at its eighth iteration and an awful lot of features have been added in eight generations. That makes it a more complex operation if you go beyond the defaults. It's a case of, the more you put into GoPro, the more you get out.

The Hero8 Black comes with several changes since generation seven. The separate waterproof housing is gone. Instead, the unit itself is waterproof to 10m. Two clips at the bottom fold downwards, so you can attach the same GoPro mounts as before. The only downside was the new door opening the battery and LCD screen more. The latch is stiff to open and close, which to some degree is understandable as it offers a waterproof seal. But GoPro should work to improve this.

The "HyperSmooth" video motion smoothing introduced with the Hero7 Black last year is now more versatile. It gets rid of the lurching shake as you walk. I find it great when taking videos from the bike. Smoothing is done on the fly, so no post-processing is needed. Previous models had me undulating up and down and

gyrating left and right as I rode. This year when you take regular video, you can select between three levels of HyperSmooth stabilisation on, high and boost. Smoothing video motion involves cropping frames at the edges so you may want to avoid the "boost" setting that causes the most cropping unless you need it. If you're GoProing sitting on the back of a camel, then you probably do need it.

LiveBurst mode is like "top shot" on Google Pixel phones. It takes a three-second burst of photos, including 1.5 seconds of frames before you activate the shutter, so if you're a tad slow to press the shutter button, you can still capture the moment. You can also choose a three-second video.

When you're out and about, you simply select the preset you want and start shooting

The specialist TimeWarp option automatically adjusts the speed based on motion, scene detection and lighting. If there's interesting action in the midst of relatively nothing, the speed will slow to show it. You can also temporarily slow the speed manually. TimeWarp also automatically applies video smoothing.

Another option, night lapse, takes periodic stills rather than the slow motion of a time lapse. The Hero8 Black comes with several changes since generation seven. The separate waterproof housing is gone. Instead, the unit itself is waterproof to 10m. Two clips at the bottom fold downwards, so you can attach the same GoPro mounts as before. The only downside was the new door opening the battery and LCD screen more. The latch is stiff to open and close, which to some degree is understandable as it offers a waterproof seal. But GoPro should work to improve this.

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GoPro Hero8 Black

FEATURES

- Takes 4K video, 12MP stills with HDR
- Standard, slo-mo, time lapse video
- HyperSmooth 2.0 action smoothing
- Video editing with the GoPro app



- No need for waterproof housing
- Presets organise your shot options
- Very smooth video



- Battery life
- Still waterproof latch
- Mods, accessories add to cost



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60 frames a second but now does it also in linear mode, which straightens the horizon. There's more shooting options at 2.7K, 1440p and 1080p. Time lapse video and photos support an image interval of up to 60 minutes. It was 60 seconds previously. The maximum video bit rate is 100 rather than 75 megabits a second. There's support for RAW photo capture and GoPro claims better HDR (high dynamic range) photo support. The camera uses a microSD card for storage. This year's model uses the same capacity as last year's and

battery life isn't that great. You need to remain alert to avoid running the battery down. I also tested the GoPro app that is available for iOS and Android. You can use it to download stills and clips, and now create videos. The video editor can use both GoPro and handset media. I could view, select and trim clips as I went, which made compiling a video easier. The app automatically creates "suggested" videos with a music soundtrack. You can edit a suggested video to create one that's more elaborate. But editing isn't very flexible.

GoPro also offers a subscription that includes repairs and lets you store video to the cloud automatically. The company also promises discounts on mounts and accessories to subscribers. Overall, the GoPro Hero8 Black is a solid upgrade rather than a quantum leap forward compared to last year's Hero7 Black. But that just equates to a great action cam being even better. It's the best that GoPro has produced so far. The Hero8 Black ships from October 15 and you can pre-order now.

iPad Mini a bright light in tablet sales

EXCLUSIVE

CHRIS GRIFFITH

The new iPad Mini has sparked a mini revival in tablet sales in a market that's generally in decline.

The annual tablet computer study by tech research firm Telsyte estimates that about 1.44 million tablets were sold in Australia in the first half of this year, down 2 per cent compared to the same period last year.

Telsyte's tablet survey covers stand-alone tablets and 2-in-1 devices, which can be separated into tablet and keyboard attachments.

Apple dominates Australia's tablet market with 57.4 per cent, followed by Windows (23.4 per cent), Android (17.6 per cent) and others (1.6 per cent).

Telsyte managing director Foad Fadaghi said tablet sales were affected by a continued decline in the Android tablet market, which was down 36 per cent from the 2018 first half. He said Australian electronics retailers were carrying fewer Android tablets by the likes of Acer, Pendo and Alcatel.

The lack of dedicated applications being developed for Android tablets was another reason for languishing sales. Windows tablets were faring better, with sales of Apple and Windows tablets increasing 5 per cent and 3 per cent, respectively, over the same period.

The release of the iPad Mini 4 had a positive market impact. Apple users had waited since September 2015 for a new iPad Mini and the inclusion of Apple's recent A12 bionic processor in the new Mini made it an attractive proposition. There still was a 16 per cent lift in tablet sales of devices with screen sizes of about eight inches.

According to Telsyte's survey, Apple, Samsung and Microsoft remained the top vendors for iOS and Android tablets and Windows 2-in-1s respectively. Telsyte found an interest in 2-in-1s led to a rise in the average cost of tablets by 17 per cent, to more than \$800. Telsyte forecasted that about 1.5 million tablets would be sold in the second half of this year, a fall of 5 per cent compared to the same period last year.

Also affecting sales is the tendency for people to keep devices for longer. Telsyte said the replacement cycle of non 2-in-1s (slates) lengthened about 20 per cent in a year to 3.2 years.

Apple's iPad Mini 4

It said the 2-in-1 category was also on the rise. It estimated about 39 million Australians used a 2-in-1, with Windows still holding more than 65 per cent of the category.

There were other factors pushing consumers towards upgrading, such as the advent of 5G, faster and more stable Wi-Fi 6, along with the introduction of biometrics such as facial recognition and fingerprint readers in mid and lower-range devices.

The introduction of electronic SIMs (eSIMs) was expected to assist sales over the next 24 months, with about 10 tablets and 2-in-1 eSIM models available from manufacturers such as Apple, HP, Lenovo, Microsoft and Samsung.

Telsyte found that about one in 10 tablet purchasers were through carrier channels, and just over two million tablets were connected to mobile networks. He said this should help increase sales.

The survey found that more than two in five Australians were interested in connecting their tablets to mobile networks. If the set-up and connection was easy (46 per cent), with an affordable data plan (46 per cent), and a good selection of mobile phone services (46 per cent).

Telsyte said smart speaker use was also on the rise. It estimated about 20 per cent of Australian households were using at least one smart speaker at the start of July.

Of these, Telsyte found about 10 per cent were now using smart speakers with displays, such as a fall of 5 per cent compared to the same period last year.

Telsyte said the smart speaker market had doubled in six months. It said this trend would continue giving tablet vendors a chance to be part of the smart home market that was already worth \$1.1bn at the end of last year.

Nest Hub Max a welcome addition to family home

GEOFF QUATTROMANI

The introduction of voice assistants has been highly successful in Australia. What started as something we used on our smartphones has evolved into small and large speakers around the home listening and awaiting our next command.

The next step from this has been the addition of a screen and even cameras that not just tell us things, but also show us something. The Google Nest Hub Max is doing just that, and we've looked closely, listened intently and made some observations.

The Nest Hub Max is positioned in our kitchen. It features a 10-inch touch screen display with a built-in camera. It sits angled on a base housing three speakers. It is connected to power and relies on Wi-Fi connection. The set-up process is simple. A few optional extra steps allow Google Nest Hub Max to identify its interacting partner. It then can provide more tailored responses such as your particular appointments of the day.

The camera and microphones can be manually disabled with a small switch. The camera, however, has its use. If you raise your hand at the device, it can pause music. If you wave, it can change songs and more. You can connect to your Google Nest Hub Max from anywhere in the world and see inside your home through the camera.



Google Nest Hub Max personal assistant sits angled on a base housing three speakers and relies on Wi-Fi

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Hub Max you can leave reminders for the kids when they come home. You can leave a video recording of your pet, ensuring that their chores are complete before you get home.

Living with the Google Nest Hub Max has been a greater than expected experience. The home screen shuffles images from my Google Photos back-up, like a digital picture frame did years ago.

The speakers make listening to music and podcasts a joy and offer adequate sound quality during meal preparation or cleaning up.

The display is positioned well to allow us to watch the news, a YouTube video or even content from Stan. We had to re-learn how we interacted with assistants as we were now asking the product to "show" us content rather than "tell" us. In the kitchen, this could result in "Hey Google, show me how to dice an onion" leading to a video to follow. A recipe, the Weather Report and status of our smart lights in the house could all be viewed and interacted with on the Google Nest

Hub Max. The screen acts as a great way to view security cameras, including the Ring doorbell.

One unexpected feature was the ability to cast content to the display, such as images, and we could continue listening to music and podcasts we started to consume on our smartphones. Not all Chromecast applications are supported.

Netflix would have been an excellent addition to add entertainment to the room.

While being too large for the bedside table and perhaps too advanced and feature-rich for the children's rooms, the Google Nest Hub Max found a wonderful home in our kitchen.

All the family used it. While facing strong competition from the almost identically featured and priced Amazon Echo Show, there are some strengths such as YouTube and Stan support and a nicer design that set the Google Nest Hub Max ahead. \$349 RRP.

Geoff Quattromani is a tech commentator. Check out his podcast "Technology Uncorked" for new information on each week.

Better to improve armour than wear the cyber bullets

MICHAEL CONNOR

makers failing to guard their enterprises against cybercrime? It's a question that is confounding cybersecurity experts as 2019 shapes up as another year littered with major breaches and sensitive data exposed to prying eyes.

Almost 23,000 Australian businesses have so far experienced some form of cyber incident, with the first six months seeing 92 million malware detections recorded by organisations. Ransomware, the likes of which crippled the networks of regional Victorian hospitals last week, is rampant, with the extortionists on average walking away with \$36,295 in ransom.

Almost 52 per cent of companies are buckling to the demands of the cybercriminals and in some cases, payments have been as high as \$250,000.

The full cost of cybercrime in Australia for 2019 is tipped to exceed the billion-dollar mark.

That figure is on track to grow by more than 27 per cent in 2020 and a whopping 52 per cent by the end of 2022.

The numbers are significant and it's not just the dollar figures

— the risk to essential services and the pilfering of personal information is only going to accelerate.

So, what will it take for business to change their approach? Cybersecurity isn't easy but most organisations aren't falling victim to sophisticated malware. If anything, they're being duped by run-of-the-mill software.

Companies succumb to the demands of cyber extortionists because it's the cheapest option

At Security In Depth, we have witnessed 437 malware attacks over the course of 2019 — most of which were easily managed and preventable. There are always a few curveballs, but the one consistent theme on display is the indecisiveness and confusion of the management.

I have sat through countless board meetings where an organ-

isation's initial thought is to not pay extortionists but then subsequently change its mind when it's unable to retrieve critical systems, making the cost to rectify the problem an even more expensive exercise.

It's not that long ago that one organisation was hit by a major cyberattack, crippling it along with the demand for \$250,000. Economic pragmatism in the end won out. The organisation realised its computers were locked and sensitive client data, which is where the role of its insurer became pivotal — it wrote part of the bill, paying \$100,000 of the \$250,000 sought.

The negotiating a reduced amount and paying the balance, compared to the cost of rebuilding all the files and information encrypted, would have been far more expensive than the payout.

The role insurance companies play are integral to mitigating the economic fallout, with the question whether to pay or not to pay becoming an easier assessment to make by insurers.

Detailed analysis has been conducted at an economic level by all stakeholders, including cybercriminals, and once the numbers are crunched, the penny drops and the awakening of reality concludes that paying reduces time off line, enables access to critical files and has the business up and running with minimal disruption.

The challenges organisations face by allowing themselves to be extorted is that it encourages cybercriminals to blossom and ply their trade — not necessarily against the organisation hit, but by helping to foster a growing industry of inadvertently funding new versions of malware and ransomware, allowing cybercriminals to expand their operations and targeting organisations.

Companies succumb to the demands of cyber extortionists because it's the cheapest, quickest and easiest option to extract themselves out of a situation where it seems there is no light.

It may not be right, but it frees them from potential ruin.

Michael Connors is the CEO of Security In Depth.

Smarter driving a digital future

STEPHEN OWENS

The annual number of Victorian road deaths is less than a third of what it was in 1989. But the bad news — despite spending millions on police blitzes and advertising campaigns, our road toll in 2019 is up 44 per cent compared to 2018.

This raises the question — have our attempts to reduce the road toll plateaued?

It is hard to appreciate the advancement in driver safety, but thanks to new technology, vehicle safety has come an incredibly long way. Did you know that in 1989 the average car would probably not be equipped with crumple zones, for absorbing the impact of a collision; airbags; for preventing fatal concussion with obstacles such as a windscreen, or ABS brakes and electronic stability control (ESC), used to help control a car when sudden braking is required?

In 1989, it was a challenge to control a vehicle in an incident, let alone walk away from a collision with minimal injuries. Now, due to advancements in technology, we are ready for the next wave of vehicle safety features.

These days the term "smart" is applied to everything from a smart TV to a smart car. In essence, "smart" means a device is computer powered and connected to other devices via the internet. Vehicle safety has become a "smart" too, with greater numbers connecting to networks and offering connected safety features such as adaptive brake lights, to active anti-whiplash head restraints, and automatic 24/7 emergency assistance.

'Smart vehicles have functions that monitor many aspects of a journey, including vehicle health information and driver behaviour'

The move towards smart vehicles has been viewed primarily in the prism of consumer convenience. There is also an emerging safety benefit. For example, smart vehicles have sensors that can detect many aspects of a journey, including vehicle health information and driver behaviour.

While being "connected", this offers an excellent opportunity for such data to be aggregated by road authorities and used to monitor traffic in real-time. This means that if a collision suddenly occurred and it was in a high-risk area, road authorities will be alerted of this hazard within seconds via the vehicle's signage or through the vehicle's sensors.

Moreover, it means emergency services can be notified immediately, saving precious minutes. As data is aggregated, road authorities will have the ability to dynamically change the speed limit to prevent further accidents too.

The genius of such systems is that it allows for speed limits to be instantly adjusted to suit the physical conditions. A trial of this use of artificial intelligence in Nevada in the US has seen positive results, with a 17 per cent reduction in crashes along the trial length of road.

This is important because while a road may be fit for purpose most of the time, it may pose a safety risk in extreme conditions such as wet weather.

This is what is known as a "transient black spot" and has traditionally been very hard to alleviate. But by alerting how drivers approach roads in severe conditions, the risk of a crash can be reduced.

As automated technologies move into vehicles at a rapid rate, having the vehicle forward drivers aware of critical information. It will help the automotive industry move toward the goal of a zero-fatality environment.

By contributing to safer motoring and emergency response, smart vehicles will save drivers time and help protect them on the road. Embracing vehicle safety and security technology allows drivers to be informed, secure and connected.

Stephen Owens is chief officer of telematics at Australia.