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with Altech Autopage Cellular - p21



## Learnfast

Skills training for all - p20



## Nokia Lumia 900

The best Windows  
Phone yet?



# The Education Issue





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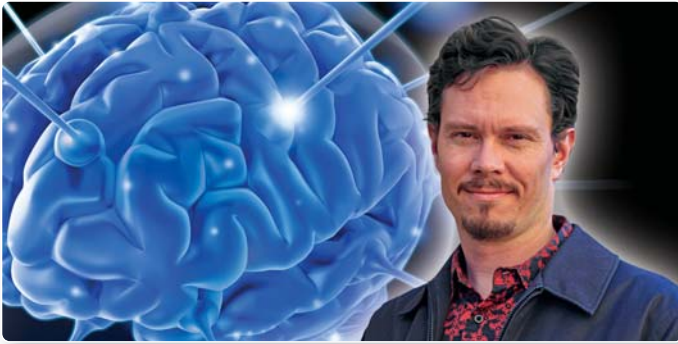


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## This is your brain on ...

I'm fascinated by how the internet is changing society and the impact it has on our species, both for better and worse. Recently I stumbled across an interesting presentation done by Gary Wilson at a TEDx event held in Glasgow ([bit.ly/wilyoutube](http://bit.ly/wilyoutube)). Wilson, who runs the site [www.yourbrainporn.com](http://www.yourbrainporn.com), talks about the impact that highly eroticised material on the web has on men's brains. Constant exposure to pornography, Wilson argues, is causing addiction, changing the neurological underpinnings of the brain much the same way any other addiction does. This addiction has more significant impact on men in their twenties who started watching porn as teens on high speed connections, rather than older men who grew up with slower internet connectivity. Renowned psychologist Philip Zimbardo's talk on TED ([bit.ly/zimyoutube](http://bit.ly/zimyoutube)) blames this constant sexual arousal for boys being out of sync not just in traditional relationships, but also academically. Like all addictions there is a way out, and visiting [www.yourbrainporn.com](http://www.yourbrainporn.com) is a solid first step.

Enjoy the issue,  
Mike ([michael@techsmart.co.za](mailto:michael@techsmart.co.za))



## 8 The Titan smartphone

When you need something rugged, today's stylish smartphones simply does not make the cut. We review the Titan rugged smartphone, and we are giving away two phones to lucky readers.

## 13 Fujifilm X-Pro1

The Fujifilm X-Pro1 is stirring the market with its retro good looks and excellent image quality. We had it for a few weeks, and this is what caught our attention.

## 18 The Education Revolution

For any country education is extremely important. As with almost everything it touches, technology is also changing the education system, and in this article we see how.

## 26 The Tech Tussle

Opinions about Microsoft's upcoming Surface tablet have been mixed, and the same applies for the office. TechSmart's Mike Joubert and Ryan Noik take opposite views to bring you the big Tech Tussle.

**Correction:** We would like apologise for a mistake that occurred in last month's issue of TechSmart, Issue 106. On page 12 we published a review of the Asus Transformer Pad Infinity with the wrong picture - that of the Asus Transformer Pad. We hope that it did not cause too much confusion. To read more please visit [bit.ly/correctasus](http://bit.ly/correctasus).

**Please note:** Due to space constraints, the article on mHealth projects has been moved to next month.

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## Top Tech Titbits

### Redmond pulls wraps off Office 2013



Besides revealing that the hotly anticipated Windows 8 will debut this October, Microsoft also recently unveiled Office 2013, which brings new features like tablet touchscreen support and cloud-based functionality to the productivity suite table. Apart from a new user interface, users will be able to save work documents to Microsoft's cloud-based storage service, SkyDrive, making these documents available for all their devices including their smartphone, tablet and home PC. The full line-up of Office 2013 offerings and price plans will be announced later this year.

### PC shipments pull sales handbrake



During Q2 2012 the global PC market has seen its growth stall, whilst the supposed messiah of the notebook PC segment – ultrabooks – have not delivered the expected sales boost. This according to the International Data Corporation, which asserts that general users remain reluctant about purchasing PCs in an environment of tech transition and soft economics.

### Yahoo login info hacked as warning

Hackers posted the login details of over 450 000 Yahoo! users last month, asserting that the hack was meant to serve as a warning to the parties responsible for the security of Yahoo's sites. Yahoo said that less than 5% of the breached user accounts had valid passwords and that it had addressed the vulnerability which led to the hack. The embattled company has also appointed ex Google executive Marissa Mayer as their new CEO, paying her as much as \$59 million. As long as she can turn around Yahoo owned Flickr, we'll be happy.



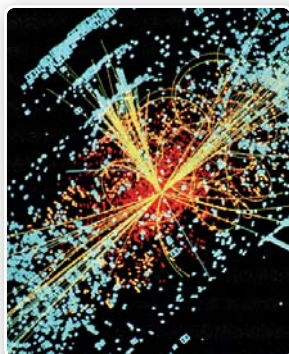
### Firefox OS to light up mobile world in 2013?

Mozilla is working on its own mobile operating platform, a fully open ecosystem based upon HTML5 dubbed Firefox OS. A number of mobile operators have boarded the Firefox OS bandwagon, including Deutsche Telekom, US-based Sprint and Chinese company ZTE. The first devices are expected to launch commercially in Brazil at the beginning of next year. If there's room for another mobile OS remains to be seen.



### Higgs boson found?

Physicists from the European organisation for nuclear research (CERN) have discovered a new subatomic particle, which may turn out to be the elusive Higgs boson (aka the God particle). If so, this discovery will lead to key insights into question relating to particle mass and the existence of life in our universe. The boson is named after Peter Higgs, a British physicist from Edinburgh University, who was the first person to propose the idea of its existence in 1964. ❄️



## Hot New Products



### McLaren MP4-12C Spider

The Spider edition of the McLaren MP4-12C has been unveiled just in time for summer. It boasts a retractable hardtop roof, operated by a system that enables the driver to lower the roof and bask in the warm rays of the South African sun, even while the car is moving at low speed. Besides this fancy roof, the MP4-12C Spider also features a 3.8L V8 twin-turbo powerplant that'll rocket it from standstill to 100 km/h in just 3.1 seconds onto a top speed of 329 km/h. Yours for the unbelievably low price of R2 216 000 Stateside as of the end of this year.

### Google Nexus 7" tablet

Google's iPad and Kindle competitor is built in conjunction with Asus, and tips the tablet scales at a very portable 340 g. It is powered by a Nvidia Tegra 3 T30L quad-core processor, running an 1.2 GHz, sports 1 GB of RAM and an LCD touchscreen (800 x 1280). Even more impressive is the asking price of below \$200 (about R1600) for the 8 GB version and \$250 (R2000) for the 16 GB Nexus. Handling the operating is Google's latest version of its popular mobile platform, Android 4.1 (Jelly Bean), bringing new features such as offline voice dictation and a new homescreen that will automatically adapt to fit a user's content. In addition, the Nexus tablet will apparently offer a battery life between eight and nine hours. No local release info is available yet



### Marvel Cinematic Universe: Phase One – Avengers Assembled

What to get the geek that has everything? The limited edition Marvel Cinematic Universe: Phase One – Avengers Assembled box set includes six Blu-ray movies – *Iron Man*, *Iron Man 2*, *The Incredible Hulk*, *Captain America: The First Avenger*, *Thor*, as well as *The Avengers*. Besides the entire The Avengers discography, you also get a bonus Blu-ray disk filled to the hilt with exclusive bonus content such as artwork and prop reproductions. More importantly, the set also includes a glowing Tesseract to power their dreams of global domination or at least form the centrepiece of a geek universe. It's only available in September on Amazon for \$140 (around R1160).



### Ventura SPARC MGS W51 digital watch

The Ventura Sparc MGS Watch has no battery, instead boasting a MGS-11 (micro generator system) powered by the wearer's wrist movements. To ensure that the watch doesn't waste power, it features an energy management system with movement detector to engage its sleep mode at night when it's on your bed stand. Ventura's Sparc MGS watch also sports an upgradeable operating system (EasySkroll v.2.0), which the firm says is a first for wristwatches. The privilege of powering your own watch? An electrifying \$5400 (approximately R44 700). ❄️



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# TechSmart's TOP 5

# Luxury Hatchbacks

You don't need to be an Oppenheimer to be able to smell the finest leather and mahogany wood from the driver's seat of your luxury hatchback. Here are our top 5 choices.



## Mercedes-Benz A class

The brand new A class is only arriving in 2013, but is already shaping up to make a play for the top spot within this segment. Until it arrives though, buyers can get the current model, with our pick of the bunch being the A180 that boasts a 1.7 litre four cylinder engine pumping out 85 kW at 5500 RPM and 155 NM between 3500 at 4000 RPM. This is enough to propel the luxury vehicle from 0-100 km/h in just shy of 11 seconds, on to an illegal terminal velocity of 188 km/h. Not that you'll be able to notice its speed from within the cocoon of luxury, since the standard features on this car include cruise control and an audio system with six disc CD changer and eight speakers. Safety equipment includes a tyre pressure loss warning system, while drivers can add optional extras like an active park assist system for R5100. The most affordable car to feature a three-pointed star badge on its bonnet costs R252 000.



## Volvo C30 2.0 Essential

Volvos are renowned for their safety features and the C30 hatchback offers plenty in this department, including dynamic stability and traction control, as well as an adaptive brake light system. The latter is able to detect the difference between normal and panic braking and acts accordingly, by flashing the brake lights at the rate of four times per second during a panic braking situation.

Other than safety, this hatch's biggest drawcard is its styling, with its look certainly playing a part in setting it apart from the more conservatively designed rivals within this segment. Its 2.0 four cylinder petrol powerplant develops 107 kW at a music to the petrolheads' ears 6000 RPM and 185 Nm at 4500 RPM. It's enough to propel this Swedish supermodel to 100 km/h in 9.4 seconds, whilst using around 7.6 litres per 100 km in a combined cycle. A date with this looker isn't cheap at R275 000.



## Audi A3 1.8T FSI Ambition manual

Performance wise, the A3 is right up there with the Beemer since its 1.8 TFSI engine delivers 118 kW of power between 5000 and 6200 RPM as well as 250 NM of torque between 1500 and 4200 RPM. Drivers will be able race from robot to robot since it can accelerate from 0 to 100 km/h in just 7.6 seconds onto a theoretical (we hope, unless you're on a race track) top speed of 222 km/h.

Driving it conservatively however should, with the assistance of the start-stop system, result in a combined fuel consumption figure of just over nine litres per 100 kilometers. The problem with the stunning A3 is its extensive list of optional extras that easily propels its already premium asking price into the stratosphere. Yours for a pricey R290 000, but add the acoustic parking system (front and rear) for example and you'll fork out an additional R7000.



## Lexus CT 200h

At R359 000 the CT 200h is the most expensive car on our list and the only hybrid. It is powered by a 1.8 litre 16V DOHC petrol engine developing 73 kW at 5200 RPM and 142 NM of torque at 4400 RPM, plus an electric motor that churns out 60 kW and 207 Nm. As a hybrid the CT 200h S delivers exceptional fuel efficiency with its combined figure of an incredible 4.1 litres per 100 km. Even so, this car is no less zippy than its conventional rivals, accelerating from standstill to 100 km/h in 10.3 seconds onto a top speed of 180 km/h. Beyond treehugger credentials, this vehicle offers a

head turning design and all the creature comforts associated with Lexus including a premium sound system, Bluetooth system with voice command, daytime running lights, keyless start system and dual automatic aircon system with pollen filter.



## BMW 1 Series

BMW might be on par with its German rivals, Mercedes and Audi, in terms of design, tech integration and safety, but its in its sporty driving experience that this brand shines. Even though this is the entry-level vehicle in the automaker's stable, it is no less exhilarating to drive thanks to BMW's TwinPower turbo 1.6-litre petrol engine powering the 118i (and 116i). This efficient German powerplant churns out 125 kW at 4800 RPM and 250 NM of torque between 1500 and 4500 RPM, enough to propel this car from standstill to 100 km/h in 7.4 seconds.

All this whilst still delivering a claimed combined fuel figure of less than six litres per 100 km, with fuel usage rate boosted further by ECO PRO Mode. According to BMW, driving in ECO PRO mode makes it possible to reduce fuel consumption by up to 20%. Getting into the driver's seat of the five door 116i costs a cool R273 000. ❖



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## Nokia Lumia 900

### Brightest star in the Lumia range

Nokia's Windows Phone-based Lumia 900 includes everything users crave in a smartphone. But does it have enough to take on the Android big boys?

Like the gorgeous Lumia 800, the 900 sports a stunning N9-inspired look, incorporating a protective polycarbonate shell (127.8 x 68.5 x 11.5 mm), making it feel quite comfortable to hold, but noticeably bulkier than the Samsung Galaxy S3 (160 g vs 133 g).

#### Display

Nokia crosses the magical 4" mark with an 4.3" WVGA (480 x 800; 217 pixels per inch) AMOLED capacitive ClearBlack touchscreen, which manages to keep glare at bay when used in direct sunlight. It's bigger than the Lumia 800's 3.7" WVGA screen, translating to less scrolling when browsing and an enhanced movie viewing experience. Unfortunately the WVGA resolution does not quite match the resolution of competitors like the HTC One X (4.7"; 312 ppi) or Sony Xperia S (4.3", 342 ppi).

#### Other features

Things remain smooth within the Windows Phone 7.5 (Mango) operating system thanks to a single-core 1.4 GHz Qualcomm Snapdragon processor that, on paper, appears outmatched by the 1.4 GHz 4212 Quad Exynos brain of the Galaxy S3. In practice though, the Snapdragon delivered a lag-free performance whilst running apps and navigating Mango. Besides this speedy CPU, the Lumia 900 offers users an 8 MP autofocus camera with Carl Zeiss optics that captures quality stills and lag-free HD-ready (720p, not 1080p) videos. Also onboard are some excellent apps, including Nokia Drive, which provides turn-by-turn, voice-guided navigation.

### "The Nokia Lumia 900 is certainly the best Windows Phone we've tested yet."

Unfortunately, users only have access to 16 GB internal storage and cannot expand on this due to the lack of a microSD memory card slot. However, you do get 7 GB additional cloud-based storage for free via Microsoft SkyDrive.

While recently previewing Windows Phone 8 (WP8), Microsoft revealed that Windows Phone 7x devices will not be updated to WP8. Instead, devices like the Lumia 900 are being upgraded to Windows Phone 7.8 later this year, which luckily features the same user interface as WP8.

#### Conclusion

While Nokia's Lumia 900 is savvy enough to take on the big boys, its single-core CPU, non-HD-display and incompatibility with WP8 might mean that it won't reach the summit of most buyers' upgrade list. We hope this is not the case, since the 900 is certainly the best Windows Phone we've tested yet. [HD] ❖



## Titan smartphone

### Tough as the Titans

The Titan's Android 2.3 (Gingerbread) interface may be instantly familiar to Android users. However, the phone is significantly different in a very interesting way, namely, its compliance to the US MIL-STD-810g military standard.

Shock resistant and dust proof Titan is clearly designed to handle and survive the any abuse that life outdoors and inclement weather can throw at it. Every port and opening, including the battery and SIM card cover, is sealed as tight as a drum, as the phone is further intended to withstand being submerged in up to a metre of water.

#### Tough and bright

The hardened glass covering does mean though that the 3.5" screen requires a bit of a firmer press to register. In all other respects, such as browsing the web, accessing the market and email, and running programmes, the Titan is responsive and quite fast for general tasks, relying on a Qualcomm MSM7227-1 turbo processor and 256 MB of RAM. More importantly for a phone of this ilk, its screen is bright and readable in direct or bright sunlight, while it comes with apps that provide it with a digital compass, barometer, altimeter and pedometer saved on 4 GB of storage.

### "Every port and opening, including the battery and SIM card cover, is sealed as tight as a drum."

Additionally, the phone's speaker volume is noticeably loud, which should cater for noisy environments such as construction sites, stampedes and warzones (although we can't recommend texting while running away from danger). These features sit alongside the standard and expected smartphone offerings of a microSD card slot for expanding its storage, a five megapixel camera and of course, Wi-Fi. Additionally, the battery is removable, but you may need to employ a screwdriver to first pry off the protective back cover.

#### To the point

We would have no qualms about taking this phone on a white water rafting adventure, or on a trek with Bear Grylls. It has a RRP of R3600 and is available from Leaf on 011-460-8000. [RN] ❖

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# Asus Notebooks, ultrabooks and tablets: A wise selection

Taiwanese PC manufacturer Asus is setting the world alight with a number of hot notebooks, ultrabooks and tablets. Here's a selection of what they have on offer.

## Top Tablets

### Transformer Prime (TF201)

**R5499**

Asus has consistently been one of the top producers of Android tablets, with the Asus Transformer being one of them. It comes with Nvidia's Tegra 3 quad-core CPU (1.3 GHz) and a 10.1" LED backlight screen that offers a very good resolution of 1280 x 800. The Prime comes with Android 3.0 Honeycomb onboard, which is upgradable to 4.0 Ice Cream Sandwich. This unit is 32 GB, Wi-Fi only.



### Transformer Pad (TF300)

**R7699**

The difference a keyboard docking station can make to a tablet is phenomenal, not just for typing, but also because it adds extra battery power to the device. With the dock you can go another five hours extra without charging, while the tablet is 3G enabled. This Tegra 3 (1.2 GHz) powered device comes with Android 4.0 Ice Cream Sandwich, a 10.1" LED Backlight IPS panel (1280 x 800) and bucks the colour trend, as it is available in royal blue, iceberg white and torch red. This unit is 32 GB, Wi-Fi and 3G, dock included.



### Transformer Prime Infinity (TF700)

**R7699**

One of the most striking features of the Transformer Prime Infinity is its amazing screen, which provides a gorgeous 1920 x 1200 resolution that makes viewing pictures and watching movies an absolute pleasure. It also comes with a keyboard dock, Android 4.0 straight out the box and added oomph thanks to the 1.6 GHz quad-core Tegra 3 processor. Certainly one of the best Android tablets available. This unit is 64 GB, Wi-Fi only, dock included.



## Top Notebooks

### SX54C-SX329R

**R3999**

For students or other users looking for an entry-level machine, the Asus SX54C is a good place to start. It contains an Intel Pentium dual-core B940 2.0 GHz processor, 2 GHz DDR3 RAM and 500 GB worth of storage space. This 15.6" notebook also includes a DVD drive and a selection of ports, including an HDMI port.



### K53E-SX1261V

**R6199**

If you are in the market for a more powerful machine that is able to handle some serious office stress, the K53E will be more to your liking. Included is solid performance courtesy of a second generation Intel Core i5 processor (2.5 GHz), 4 GB worth of memory and 500 GB worth of storage space. The 15.6" K53E also looks great, thanks to an aluminium textures design and chicklet keyboard. Ports on offer include 2x USB 2.0, 1x USB 3.0, a 4-in-1 card reader and HDMI.



### K55VD-SX032X

**R10 499**

The 15.6" Asus K55VD does not mess around when it comes to performance, due to a third generation Intel Core i7 (2.3 GHz) tiger in its tank. It's also a stylish gentleman, with a textured aluminium body in a range of colours, while boasting a chicklet keyboard. The K55VD does not only answer the call of duty in the office, since it includes an Nvidia GeForce 610 series graphics card ready for gaming. Altec Lansing speakers, 4 GB RAM and a 500 GB hard drive is also included.



## Top Ultra-Slim notebooks

### U32U-RX012V

**R4699**

If a thin-and-light form factor is more your thing, the Asus U32U should be right up your alley. This well priced machine includes AMD's Fusion E450 dual-core (1.65 GHz) processor with 2 GB of RAM and a 320 hard drive. It's also ready for a spot of gaming courtesy of an AMD Radeon HD6320 graphics card, while an eight cell 5600 mAh battery will keep you powering through the working day.



### UX31A-R4005X

**R12 699**

The Asus Zenbook machine is certainly one of the best in the business, and the newly released Zenbook Prime only improves on an already excellent machine. The UX31A's full HD (1920 x 1080) widescreen provides an impressive viewing experience. Also included is a third generation Intel Core-i5 3317U processor (2.5 GHz), a 128 GB SSD, 4 GB RAM and a four cell 6840 mAh battery.



### UX31A-R4003X

**R16 499**

While the Asus UX31A's screen is a sight for sore eyes, it also has the performance muscle to back it up. Its 13.3" full HD (1920 x 1080) non-gloss screen is simply breath-taking, while this ultrabook packs a mean punch thanks to the latest Intel Core-i7 (3517U, 1.9 GHz) CPU. Its above average 256 GB sized solid state drive and 4 GB RAM make this machine an executive choice. This model is also ready for the road thanks to a weight of only 1.3 kg.



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## What you need to know

### Delectable Android 4.0 ICS package

In the market for a media tablet that offers plenty of spec bang for your bucks, comes preloaded with a spate of useful apps and is backed by an extensive warranty? Tarsus' Onyx Calypso 9.7 tablet definitely fits the bill.

The Onyx Calypso 9.7 tablet is housed within a protective aluminium shell that measures 245 x 185 x 86 mm and weighs 589 g, making it lighter than the new iPad and as portable as the Asus Transformer Pad Infinity. Users access this tablet's features via its 9.7" (1024 x 768) capacitive ten-point multitouch IPS LCD touchscreen, which together with the tablet's built-in stereo speakers, delivers an enhanced movie viewing and web browsing experience over smaller 7" form factors.

### ICS runs the mobile OS show

The Onyx Calypso 9.7 operates on Android 4.0

(Ice Cream Sandwich) straight out of the box, with performance determined by its single-core 1.2 GHz processor and 1 GB of RAM. Users receive 16 GB onboard storage and can expand upon this via a microSD card slot that supports cards up to 32 GB in size. The Onyx comes preloaded with more than 20 applications to start off with, including an eBook reader, PDF reader, Skype, Facebook, Twitter, Whatsapp and Documents To Go, which enables users to edit and view Office documents.



**"It includes Tarsus Accident Guard cover which covers the tablet for accidental damage, identity theft, viruses and malware."**

In terms of ports the Wi-Fi-enabled (802.11b/g/n, 3G version also available) Calypso 9.7 sports a mini- and micro-USB port, 3.5 mm audio jack, and HDMI port allowing users to showcase their movies and high-resolution photos on an HDTV or monitor. In addition, users are also able to record voice notes via the

built-in microphone, record video via the 2 MP rear-facing camera and capture self-portrait photos or make video calls via the 2 MP front-facing snapper.

### To the point

The Onyx Calypso 9.7 goes for a recommended retail price of R3190 for the Wi-Fi only version, and R3990 for the unit with built-in 3G. This includes a two year warranty and one year TAG (Tarsus Accident Guard) cover. The latter is a warranty extension that not only covers this tablet for accidental damage, but also provides cover for costs resulting from identity theft or viruses and malware. For more info contact Spirit Data Solutions 011-781-6992 or visit the Onyx tablet site at [www.onyxtablets.co.za](http://www.onyxtablets.co.za).

## Introducing SA's newest Android tablet range.

ONYX tablets

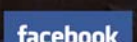


### apollo 7.0

7" Capacitive Multi-touch LCD, 1.2GHz Processor, 1GB RAM, 16GB Internal Storage, Built-in WiFi B/G/N, Android 4.0 (Ice Cream Sandwich), 1.3 Mega Pixel Front Facing Camera, HDMI Output, Micro SD Card Slot, 1-Year TAG (Accidental Damage Cover), 2-Year Warranty

### calypso 9.7

9.7" Capacitive (IPS 10-point) Multi-touch LCD, 1.2GHz Processor, 1GB RAM, 16GB Internal Storage, Built-in 3G, WiFi B/G/N and Bluetooth, Android 4.0 (Ice Cream Sandwich), Dual Camera's, HDMI Output, Mini and Micro USB Ports, Micro SD Card Slot, Aluminium Housing, 1-Year TAG (Accidental Damage Cover), 2-Year Warranty



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>400 million. Number of Android devices that have been activated, up from 100 million last June.

# Samsung Series 8 8000 Smart TV

This beast is a beauty

They say that bigger is not always better, and that may well be true in many cases. However, that maxim certainly does not apply to LED TVs, since Samsung's Series 8 55" smart TV simply blew our minds. Here's the top four ways in which the Series 8 won our hearts.

## 1 A real looker: It's beautiful

With an edge to edge display, and an extremely thin 22.8 mm profile with virtually no distinguishable bezel, this LED TV is all about the picture on display. That picture, offered in 1080p high definition (1920 x 1080), incidentally, is gorgeous. The screen is bright and clear, clarity and saturation are off the wall, while overall contrast (the distance between deep blacks and the lightest highlights) are no less commendable. What all this means is that watching Blu-ray movies and playing games in particular are considerably more immersive (especially when paired with a good surround sound system).



**"With an extremely thin 22.8 mm profile with virtually no distinguishable bezel, this Samsung LED TV is all about the picture on display."**

## 2 Brains with the beauty: It's smart

We're a sucker for anything, or anyone, smart, and

certainly looks can fall second to smart features. Of those, the Series 8 has plenty. Connecting the TV to the internet wirelessly is a breeze and took us about ten seconds. Once connected, SmartHub enables one to download a variety of apps and content online. Additionally, AllShare Play, enables sharing content, such as music and photos, from a USB drive, PC or mobile device such as a smartphone or tablet straight to the screen.

## 3 All-rounder: It's multidimensional

The Series 8 does boast 3D, and it's rendition of the technology certainly works very well. However, like most 3D, how you feel about the experience is going to depend on your attitude towards the required, and included, glasses, which do darken the picture somewhat. Nonetheless, if you want to take advantage of 3D compatible movies and games, on the Series 8, you can, and that is certainly a point in its favour.

## 4 Everyone's invited: It's flexible

Thankfully, the TV boasts a plethora of ports, which include two USB 2.0, four HDMI, an Ethernet port, a Digital Audio (optical) port and a component cable. This means that you can connect a considerable number of devices, such as consoles, a DVD or Blu-Ray player, DStv and sound systems to the TV without fear of having to exclude anyone from the large screen party. It goes for a wallet-busting R40 000. [RN] 🌟

## Fujifilm X-Pro1



These are a few of our favourite things...

The Fujifilm X-Pro1 is stirring the market with its retro good looks and excellent image quality. We had it for a few weeks, and this is what caught our attention.



### Mechanical dials everywhere

We are suckers for mechanical dials, not just because they make changing settings a breeze, but it also take us back to a time before it was digital-everything. In keeping with its retro feel, the X-Pro1 has quite a few, including an exposure dial, a lockable shutter speed (not ISO) dial on top, a command dial, as well as levers to select focus mode and viewfinder. Even cooler is the ability to change aperture directly on the lens – as in olden times.

### View optically or digitally

Fujifilm bridges parallax problems associated with optical viewfinders by providing a hybrid viewfinder, which can also accommodate a digital view with 1.4 million dots resolution. This allows you to see the shot exactly as the sensor sees it. Not interested in the viewfinder? You can always compose your shot using the 3" LCD display on the back, with its massive resolution of 1.2 million dots, perfect for playback.

### Three lenses do not a summer make

Having three lenses in your arsenal is not enough really to take on the big boys, but as far as lenses go, they are top notch. Fujifilm developed a new mount for the X-Pro1 (X-mount), with the FUJINON XF Lens series featuring three prime lenses – a wide 18 mm f2, a 60 mm f2.4 with macro and our favourite, a 35 mm with a blistering fast f1.4. Seven more lenses (including a zoom) are expected in spring.

### New sensor a key feature

For the X-Pro1, Fujifilm developed the new 16 megapixel APS-CX-Trans CMOS sensor which they claim is "parallel, if not superior" to a full frame sensor. We simply do not have the facilities to test this brag, but some of the big photography review sites have praised the X-Pro1's sensor's performance. Indeed from our side image quality was excellent, it was just a shame that auto-focus could take its time.

### A pretty hefty price tag

With a R20 000 price tag just on the body, the X-Pro1 definitely falls into the serious enthusiast category. But with its robust body, interesting film simulation tricks, great lenses and retro-good looks, we can definitely see the appeal. [MJ] 🌟

Call Fujifilm on 011-991-0600 for more info.

# Awind wePresent WiPG-1000

Bringing presentations into the modern era

Multimedia-based presentations are still a crucial facet within the business arena. Awind's wePresent WiPG-1000 enables PC, Mac, tablet and smartphone users to connect to a projector or HDTV wirelessly and in HD.

To get started, you simply connect the wePresent WiPG-1000 to a projector, HDTV or plasma monitor, using the standard VGA input connector and 3.5 mm audio jack or HDMI port.

**“All participants who need to do a presentation simply connect to the WiPG-1000 just like they would to the office Wi-Fi network.”**

Those with a Wi-Fi-enabled display can utilise DoWiFi (Display-over-WiFi) to eliminate the need for additional cabling. Unlike the rest of the wireless adaptors we featured in the



## Up to four displays simultaneously

Participants can then use this software to display their presentation, with up to four users showing their info on screen simultaneously via the 4-to-1 split screen projection feature. To ensure an ordered flow of information, a designated conference facilitator can use the WiPG-1000's conference control mode to select whose content is presented in what order. If info is required from a bulky PC tower that is in the WiPG-1000's range, this content can be accessed remotely by connecting

a mouse and keyboard to any of the wePresent's three USB 2.0 ports. Tablet and smartphone users (Android- or iOS-based) can download Awind's MobiShow application from Google's Play Store or Apple's App Store, to be able to view the presentation on their devices. In addition, mobile users can also download Awind's WiFi-Doc app which enables them to display their content (including Microsoft PowerPoint, Word, Excel and PDF documents) via the WiPG-1000.

The wePresent WiPG-1000 goes for an RRP of R4725 (incl VAT). For more info contact Forefront on 011-259-7000 or send a mail to [info@forefrontpm.co.za](mailto:info@forefrontpm.co.za).

past, the WiPG-1000 is capable of displaying content in full HD (1920 x 1080, 1080p) resolution, making it applicable to those enjoying movies via PC too.

Once done, all participants who need to do a presentation simply connect to the WiPG-1000 just like they would to the office Wi-Fi network. PC users do so by opening their browser and entering the IP address displayed on the display's screen, which allows them to download the wePresent software for their PC or Mac (no internet required).



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## WiPG - 1000

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## Canon PowerShot SX240 HS

### Powerfully perfect

Canon's PowerShot SX240 HS continues the company's ongoing trend of producing accessible compacts that feel as comfortable in one's hand as they are intuitive to photograph with.

We have yet to come across a recent PowerShot that we didn't like, and the SX240 is certainly no exception to this trend. As expected, the build quality is top notch, as the camera feels solid from top to bottom, as well as tough enough to weather every day abuse. Additionally, at 231 g, the compact isn't going to weigh you down.

#### Intuitively yours

Even more importantly, the layout of the camera's controls and buttons are well thought out, as all the controls rest easily within reach of one's right thumb and index finger. A bright pop-out flash is stealthily concealed on the left hand side of the camera's body, but available when needed.

Modes on offer include aperture priority (f3.5 to f8), shutter priority (15 seconds up to 1/3200), and program priority. While live view and auto are user friendly for the casual shooter, an easy mode caters for the beginning photographer. Portrait, fish eye effect, discreet (which turns off distracting sounds) and movie modes are also onboard.

Sensitivity wise, ISO settings on offer range from 100 to 3200, while focusing options included normal, manual and macro, with the

last of these particularly impressing and catering for our need to get up close and personal with flowers.

#### Switch on and stand out

Kudos have to be given to the 20x optical zoom, which effectively delivers a 25 mm to 500 mm range.

When coupled with the quick and responsive autofocus, it was a joy to use. As to image quality, the 12.1 megapixel similarly delivers the goods, both in lower light indoors and strong sunlight outdoors. This also held true for the full HD (1920x1080p) video on offer, along with less space hungry 1280 x 720

and 640 x 480 options. Either way, video is accessed via its own dedicated button, and users can further take full advantage of the full zoom range while recording.

#### To the point

No less worth mentioning is the superb 3" 460k dot resolution LCD, which coped beautifully at maximum brightness with direct sunlight. In short, the SX240 HS is a winner of a camera, and makes the PowerShot range proud. It retails in the range of R2900. Call Canon SA for more info: 012-675-4900. [RN] ❀



**"Kudos have to be given to the 20x optical zoom."**



## Canon SA finds a new home

Canon South Africa has made itself a new home in Centurion, in the 'quaint village' architectural style offered by Southdowns Office Park.

The company explained that its new head office showcases a work space that ensures that it remains sensitive to the environment it resides in. "There is no doubt that Canon's offices are a feast for the eye and the perfect environment for the company to go from strength-to-strength in the coming years," commented Canon SA's marketing manager, Michelle Janse van Vuuren. The new address is 1st Floor, Block C, Southdowns Office Park, 22 Karee Street, Centurion.



## EOS 7D firmware update released

One particularly good piece of news for owners of Canon's EOS 7D DSLR is that it's receiving a decent firmware upgrade, which brings a number of new features to the laudable camera.

Most notably, the free update increases the camera's buffer, enabling it to capture up to 25 consecutive frames when shooting in RAW, and up to 17 consecutive frames when taking RAW+JPEG images. It further enables RAW images to be processed directly in the camera, while the available ISO Auto range receives a bump up from 100-3200 to ISO 100-6400. The update also adds compatibility with Canon's newly introduced optional GPS Receiver GP-E2. For full details of all the new features visit [bit.ly/NnRsJj](http://bit.ly/NnRsJj). ❀

# Power to get closer

Ideal for every family occasion, the PowerShot SX240 HS boasts an impressive 20x zoom lens and advanced Full HD movies in a compact body. HS System with DIGIC 5 and Intelligent IS give superb results.

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**PowerShot SX240 HS**



**Canon**



# The Education Revolution

Like so many aspects of our world, technology is dramatically and rapidly changing the face of education as we know it. From how we access education, to how it is being taught, to the very tools that are being used, education is being thrust into the 21st century in exciting and even futuristic ways.



This educational shift does not only apply to school goers, as technology is giving rise to the need for new, even previously unimagined skills, that people of any age could benefit from learning. Below are the top three ways we see education changing and some of the revolutionary impact these changes could have.

## Education, anywhere

While online learning has been around for some time, the accessibility to both formal education and online courses for the purposes of increasing one's skill level, have been increasingly growing.

In the case of the former, colleges and universities in the US, such as Penn State's World Campus, (<http://bit.ly/vDin5>) are offering full degrees and certificates which can be completed entirely online, or as a mixture of online and campus-based courses.

Additionally, video lessons to learners, such as those offered by the Khan Academy ([bit.ly/17O4o6](http://bit.ly/17O4o6)) on YouTube, which leverages the internet to teach, enables students in Ghana to benefit from math lessons being given in Palo Alto, California.

Locally, a company such as IT School Innovation (ITSI) provides interactive digital teaching tools with curriculum-aligned content to schools, which in turn enables students to learn and educators to teach anytime, anywhere.

This always on, instantly accessible approach to learning though, is spawning a revolutionary idea: why can't students learn and progress at their own pace, rather than being divided into semesters and standards?

## Goodbye textbooks, hello tablets

In schools, notebooks, netbooks, and now ultrabooks have become de rigueur part and parcel of learning, submitting and receiving assignments. However, increasingly it is tablets that are becoming the essential learning aid. Why carry numerous backbreaking textbooks, when an Android tablet or iPad can easily accommodate every book one needs, and so much more, while weighing less than a kilogram? (See p20 for information on ITSI promoting tablet-based teaching locally.)

However, the benefits of tablets in teaching go far beyond this. Educators are taking advantage of presenting various topics, including science and biology, using the user-friendly, multimedia-rich and interactive features that tablet apps afford. According to Apple, some 20 000 apps geared towards educational topics exist on the app store, and



that number is only growing.

Apps such as The Elements: A Visual Exploration, 3D Brain and MathBoard bring science, biology and maths to life, while the Frog Dissection app enables students to dissect a virtual frog and learn about its biology without the moral consternation (or squeamishness) that comes from doing the same to an actual amphibian. The revolutionary part though, is where having entire generations of students who have grown up with technology, rather than grown into it, could lead.

## Doors to new opportunities

No less exciting is that new technological advances are giving rise to the demand for new skills, which in turn require further education.

Technological advances are also creating positions and professional opportunities that previously may not have existed or even been imagined. More specifically, the combination of new hardware, such as tablets, and updated software packages have in recent years created entirely new industries, such as mobile app development.

Indeed, the need for tablet-centric content, is generating a growing need for skilled creatives who can create professionally crafted digital publications and apps. It is also producing a managerial type position that one can learn their way into, with a combination of business and a liberal arts education, namely that of digital content director.

Additionally, software is similarly constantly introducing new features – which need to be learned – and also create opportunities for those who are able to teach. Just one example of this is Adobe's Creative Suite (which in itself offers a lifetime worth of learning in order to truly master), and which has spawned numerous workshops, books and other learning medium.

## Wrapping up

Thankfully, in a world where education appears to be a lifelong pursuit, it has become easier than ever to learn new skills. One such example is Codecademy ([bit.ly/oDjwOj](http://bit.ly/oDjwOj)), which has placed learning how to code and programme within reach of the lay person, irrespective of whether you studied the subject at university or not. This points to a future in which new skills can be developed as needed, and even new careers or businesses created to respond to a changing world.

Together, education and technology are responsible for a quiet, but persistent revolution in both learning and applying knowledge, and that is a trend worth studying. [RN] ❖





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<20 million. Predicted size of the Q2 2012 smartphone sales gap between Samsung (50 million) and Apple (30.5 million).

# Digital learning now a reality

## ITSI leading the way

The move towards digital might have caught up in the workspace, but for a number of reasons schools are still lagging behind when it comes to the adoption of computers and tablets in the classroom.

Pretoria-based company ITSI (IT School Innovation) is looking to change this with a number of innovative projects pertaining to adoption of tablets in the classroom.

ITSI develops interactive digital teaching tools with curriculum-aligned content to schools, educators and learners across South Africa. Their projects are not intended to replace traditional education, but rather to augment and bring it up to speed with learners' innate love of technology.

One of the first schools to adopt ITSI's MobiLearn program is Doxa Deo, a private school located in Pretoria East. Making use of Android-based tablets, the school's Grade 10 group is taught using digital content based on the CAPS (Curriculum Assessment Policy Statement) curriculum. The handbooks on the tablets are more than just digitised text, since they also include video, simulations and exercises. Furthermore, teachers are provided with extra educational resources via ITSI's Virtual Learning Environment (VLE), which also allows them to push content and tests onto learner's tablets.

To learn how your school can evolve, call Wikus Breetzke on 087-806-7790 or visit [www.itschools.co.za](http://www.itschools.co.za).



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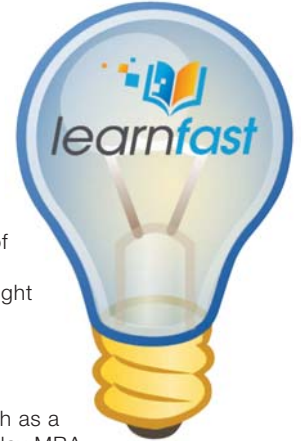
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In terms of business short courses, Learnfast provides many programs such as a time management course and a three day MBA short course, designed to give professionals a thorough overview of the strategic aspects of a corporation.

Learnfast has campus facilities in Sandton, Johannesburg and Centurion in Pretoria, with the new Durban campus opening in September. For more info contact Learnfast on 012-643-1409 or 011-262-2054. Alternatively, visit [www.learnfast.co.za](http://www.learnfast.co.za) for course information.



# Big Acer specials at HugePC

## Entry and mid-range offers available

In the past few years, Taiwanese company Acer has established itself as one of the premier PC brands. The Acer Group is actually a family of four brands - Acer, Gateway, Packard Bell and eMachines.

Today, the Acer Group still strives to break the barriers between people and technology. It ranks No. 2 for notebook shipments, and has a global workforce of 8000 employees.

Centurion-based Huge PC, is an authorised reseller of Acer products, and this month they have a few specials lined up for the public. On the budget notebook side, the sub R4000 15" Acer TravelMate TM5744 comes with an Intel Pentium P6200 (2.13 GHz) CPU, 320 GB of storage space and 2 GB DDR3 RAM. If you are looking for something more powerful, the Acer Travelmate TM5760 comes with a second generation Intel Core i5 2450M (2.5 GHz) processor, 2 GB DDR3 memory and a 500 GB hard disk, all for R6830.

For these and other deals visit HugePC in the Intertek building, Office 4, Huewel Ave, Centurion. Call them on 012-663-1666, or visit [www.huge.co.za](http://www.huge.co.za).



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20 million. Analysts believe Apple shipped that many iPads during the three-month period ending in June.

# My new Apple iPad and Altech Autopage

## A customer tells his story

Ian Roux, an Altech Autopage client from Pretoria, bought his iPad from his bank, only to run into a few headaches.

Recently I purchased an Apple iPad from my bank. At the time I knew I would need data but the urge to have an Apple iPad was just too great and so I logged in and bought the Apple iPad 32 GB WiFi + 4G (now called WiFi + Cellular). It looked like a pretty straight forward transaction, but unbeknownst to me I would be waiting 45 days to receive my Apple iPad, and I would have to call my bank 18 times to follow up. At the time these deals were available my bank was one of the only distributors of the new iPad. I would be paying R299 per month (pm) and then my



monthly account fee of R92 pm for the type of account I am on. The total amounts to R391 pm for 24 months.

I was unsure how long the ordering process would take and unfortunately found out the hard way that it was quite a process. I had to supply three month's payslips, ID and proof of residence, where after I would wait approximately 15 working days without hearing anything. After 18 calls to my bank and 45 days of waiting I eventually received my iPad.

Altech Autopage steps in and has just started selling the new iPad. I decided to get some information about their options available to compare if I am getting a reasonable

deal. Altech Autopage is offering the same Apple iPad 32 GB WiFi + Cellular at R419 per month, which includes 2 GB of data on MTN per month. The company said that if I supply them with the same information I supplied my bank with, and my application was approved, I could walk out with an iPad the following day. So for just R28 a month more, I could have

saved myself a lot of pain and effort plus received 2 GB of data, if I had just visited my nearest Altech Autopage store.

After speaking to Altech Autopage I found that I can get a micro-SIM and data on contract with pretty competitive deals. I have since signed with them and have received not only the best data deal but also the best service.

Ian Roux, Pretoria

**“Altech Autopage is offering the same Apple iPad 32 GB WiFi + Cellular at R419 per month, which includes 2 GB of data on MTN per month.”**

## The New iPad Launched In Altech Autopage Cellular Stores!

New iPad 16Gb Wifi + Cellular Black  
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# London 2012 Olympics Torch Relay

## Samsung makes this "Everyone's Olympics"

In order to make London 2012 "Everyone's Olympics", Samsung took inspirational individuals from South Africa to take part as Torchbearers in the UK Torch Relay. TechSmart was on-hand to see the Olympic Flame being passed along.

As you read this, the London 2012 Olympics is serving up a delectable selection of sport. But before the Cauldron was lit during the opening ceremony, 8000 inspirational Torchbearers carried the Olympic Flame for 70 days to more than a thousand towns across the United Kingdom. As Presenting Partner of the Olympic Torch Relay, Samsung had the opportunity to select 1360 people from across the globe to take part in the event.

The Torch Relay manages to kindle that Olympic spirit that comes around once every two years (counting in the Winter Olympics). We witnessed this first hand in the town of Dudley in the West Midlands, where Kate MacFarlane, one of the South African Torchbearers selected by Samsung, carried the torch through the Black Country Living Museum. This open-air heritage park plays homage to the region's past, and its reconstructed buildings and costumed demonstrators only contributed to an already festive atmosphere. Since early morning, people lined the side of the road and dotted

the grassy banks, all of course armed with the Union Jack and a shot of British pride. For once the weather played along and although it wasn't all sunny skies (this is Britain after all), the Flame had nothing to worry about and you could hear it approaching as the crowd cheered it along. As MacFarlane's Torch was kissed by the previous runners, one quickly realizes the impact of the Relay, since it's one of those magical moments when trouble dissipates and only smiles and cheering remain.

As we travelled back, we crossed the Torch's path a number of times, and everywhere the same spirit was visible, reminding us a bit of when Bafana Bafana entered Sandton before the World Cup. Michelle Potgieter, marketing manager at Samsung South Africa, was happy to have provided the opportunity, saying: "It was a great pleasure for Samsung to take these individuals who have gone the extra mile to participate in the Torch Relay. As part of the global village, Samsung was happy to make them part of Everyone's Olympic Games." [MJ]

## The Olympic Torch Relay – how did it start?

Although the Olympic Flame dates back to the ancient Olympics held in Greece, the actual Torch Relay was only introduced at the 1936 Berlin Olympics by Carl Diem. Ignited by the rays of the sun at Olympia, Greece, the Torch makes its way to the Olympic Stadium for the opening ceremony.

## The Olympic Torch: Quick facts

- Designed by east Londoners Edward Barber and Jay Osgerby.
- Contains 8000 holes, representing the inspirational stories of the 8000 Torchbearers.
- Weight: ±800 g Height: ± 800 mm
- Its three sides represent:
  1. Respect, excellence and friendship
  2. Faster, higher, stronger
  3. London hosting the Olympics in 1908, 1948 and 2012.



Copyright: LOCOG

## Interview with a Torchbearer: Lipson Mafumane, Soweto.

TS: You were selected by Samsung for the work you're doing in your community. Can you tell us more?

LM: I'm involved with a lot of organisations that deal with the problems faced by people living here in Soweto, including poverty, electricity and housing. People in the community come to me with problems and I assist as much I can.

TS: How did it feel when you ran with the Torch?

LM: It's actually an overwhelming experience. You feel like a superstar, bigger than a president! People wanted to hug me, take pictures with me – just to connect and celebrate. I really appreciated how well the British supported the Torch Relay. But 300 metres was not enough, I needed three kilometres – I could run and never stop!

TS: What does it mean to have carried the Torch?

LM: It meant a lot, but I wasn't carrying the Torch just for myself. As the only person there coming from Soweto, I carried it for everyone here, and in the spirit of the Olympics, for everyone on the planet. Samsung kindly bought the Torch I was carrying and gave it to me as a present. It will be next to my TV when I watch the Olympics!





# Fabbster brings 3D printing to all

## 3D manufacturing for the masses

While traditional printing (printing documents and photos on paper) has long been a consumer mainstay, the same cannot be said for the latest printing technology that is attracting significant attention, namely 3D printing.

However, the Fabbster 3D home printer which is made in Germany, may well change this, as the device comes in a compact box and in a partially assembled construction kit that those with a little bit of DIY skill should have no difficulty assembling on their own. Along with being fairly portable, as opposed to some of the 3D printing behemoths that exist, the kit can be fully constructed in three to four hours and fit on a normal sized desk. Once complete, it then enables anyone to print their own three dimensional objects from a variety of plastic materials.

### 3D Distinction

As found in the 2D printers that preceded it, not



**“The Fabbster 3D printer offers amongst the highest resolution available in entry-level 3D printers.”**

all 3D printers are created equal. According to with Fabbster, its precise material deposition, in the form of stick deposition modelling, allows for more accurate material feeding. Additionally, the device offers adjustable layer resolution

between 25 - 500 µm, which means it offers amongst the highest resolution available in entry-level 3D printers.

Another feature which helps the printer distinguish itself, is the device’s use of a new innovative technology to melt the consumption material, namely Stick Deposition Moulding (SDM). The extruder of the printer is fed with special sticks, characterised by a ‘cogging’ shape, which have been developed by the Fabbster team. These sticks are made by injection molding and are more precise than the round wire used in low-end-printers. This then mitigates or eliminates the problem found with circular filaments, which are prone to slipping. However, the main benefit is that users can obtain a precise dosage of the melt, which enables them to print objects with optimal material properties. Additionally, the sticks can be fed to the extruder via a supply magazine automatically, and easily combine to produce an object in various colours and materials.

### To the point

The Fabbster is intended to make additive manufacturing and 3D-printing accessible to everybody. To this end, they also stressed that it is easy to use, requiring only a standard PC, on which to run the included data processing software (Netfabb). It is available for R14 995 from CAD House on 012-654-0559, or visit [www.3d-printer.co.za](http://www.3d-printer.co.za).

<13 years. Estimated time waiting for downloads and results that Chrome’s snappy rendering engine saved users, according to Google.

## join the revolution



*Fabbster 3D printer comes in a partially assembled kit and is assembled in less than 4 hours. Precise material deposition in the form of stick deposition modelling allows for more accurate material feeding. Adjustable layer resolution between 25µm - 500µm for the highest resolution in entry level 3D Printers. Comes standard with powerful Netfabb software.*

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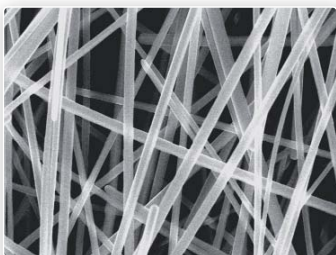
# Sci News



## Run, Spot, run!

Recently, it hasn't been only human sprinters up on the podium. Cheetahs easily outrun the rest of the pack and, according to an article in the *Journal of Experimental Biology*, we now understand why. Researchers compared the running style of cheetahs and greyhounds,

because although the two have a similar galloping style, cheetahs are almost twice as fast. Using force plates and high-speed cameras installed along a track, the researchers recorded the forces exerted on the animals' legs, their body motion and footfall patterns. They found that the cheetahs not only had slightly longer strides than the dogs, but that they also upped their stride frequency several times during their dash and kept their feet on the ground for longer. Combined, these adjustments allow for a more powerful, accelerating sprint than what the dogs achieved. Move over, slowpokes.



## Flex(i) wire

Science is stretching the limits of conventional electronics – literally. According to a study published in a recent issue of *Advanced Materials*, engineers have created perfectly functional electronic circuits on a flexible surface. The trick was to embed silver c, which are exceptional electrical

conductors, in a stretchable silicon-based polymer. This was done by pouring the polymer in a liquid form over the circuit, which rested on a support surface. Upon being heated, the liquid set and could be peeled off the base. The result was a conductor-carrying film that could be stretched by up to 50% of its breaking point, without conductivity being affected. With such bendable circuits, flexible gadgets promised by the sci-fi scene could be closer than we think.



## The ripe stuff

Our eyes think red tomatoes mean ripe tomatoes, but our taste buds often disagree. Now a study in the journal *Science* explains why looks can be deceiving. By default, tomatoes ripen unevenly, changing from a pale green to a patchy red. However, a natural gene mutation

causes tomatoes to turn evenly red upon ripening. This makes them attractive to shoppers but at the same time also leaves them flavourless. Using genetic analysis techniques, scientists found that the red-ripe gene switches off a protein that controls the amount of sugar that develops in the fruit during photosynthesis. In tomatoes without the mutation, the protein stays active and ripe fruit develop a high sugar and nutrient level. By understanding the genetic machinery behind tomato ripening, plant breeders will be able to choose which characteristic should dominate their produce. [LP] ♻️

# Green News



## Go eco racer, go!

Electric cars are known for relieving drivers of their reliance on petrol, but not for performance. Drayson Racing Technologies is looking to change this with their electric Le Mans prototype racing car, the

B12/69EV, which made its debut at last month's Goodwood Festival of Speed hill climb event.

The zero-emissions racer set a new record for electric cars with a timed run of 53.91 seconds, which made it the eleventh quickest vehicle overall. The B12/69EV is powered by an electric drivetrain, which delivers an astonishing 640 kW of power (more than a Ferrari F12 Berlinetta), enough to propel the green rocket from standstill to 100 km/h in just over three seconds and on to a top speed of 320 km/h.



## T-shirts to power our gadgets in future?

In the future, road warriors won't need to pack a car charger to keep their gadgets charged while on the go, just their favourite t-shirt. Researchers from the University of South Carolina discovered a method of using an

inexpensive t-shirt to store electrical power. They soaked a plain t-shirt in a solution of fluoride, dried it out and baked it in an oxygen-free environment.

This resulted in the fibres of the cotton fabric being converted from cellulose to activated carbon, whilst maintaining their flexibility. The scientists then utilised parts of the fabric as an electrode, illustrating that the material could be used as a high-performing capacitor. Capacitors store an electrical charge and are used within nearly every electronic device.



## Green label NB for Apple customers

Last month Apple withdrew 39 of its products from the electronic product environmental assessment tool (EPEAT) green registry, a US government-backed group that rates PCs and other

electronic equipment according to how eco-friendly they are. The move backfired, with the company not only having to contend with backlash from an eco-conscious user base, but also officials from the city of San Francisco that ceased allowing municipality staff from purchasing Apple computers as their work PCs.

A week later Apple issued an apology, with Bob Mansfield, senior vice president of hardware engineering referring to their decision as "a mistake". All eligible Apple products were relisted. ♻️

## More awesome science

Dr Love investigates the moral molecule. [bit.ly/lovedr](http://bit.ly/lovedr)

World's fastest camera (36.7 million frames per second) hunts for cancer. [bit.ly/fastcam](http://bit.ly/fastcam)

The science behind Spider-Man. [bit.ly/sciencespider](http://bit.ly/sciencespider)



## Green living tip of the month

The more spread out everything in your fridge, the more efficiently it's cooled, which saves you power. This is also true of leftovers. Rather than keeping food in a narrow pot that will be difficult to cool, decant food into a thinner, flatter Tupperware, which will retain less heat and probably be easier to store too. From *Going Green* by Simon Gear, Penguin Books.



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33.8%, 31.83% & 23.9%. Usage rates of the Top 3 browsers globally – Chrome, IE and Firefox.

## The Tech Tussle

# Microsoft's Surface tablets

Nothing divides the TechSmart office as much as a well-placed Microsoft announcement. News about the company's new tablets, dubbed Surface, did just that. And with the Tech Tussle, we try to bring you both sides of the argument.



## ✖ AGAINST

Ryan Noik



While international press fawned over the Surface unveiling, I am as yet unconvinced whether Microsoft's new tablets are as revolutionary they have been touted as being. I'm not sure whether the

Surface devices will distinguish themselves from the current crop of tablet devices and ultrabooks to really compete with either, especially with devices like the new iPad and the Asus Transformer Prime on the market already.

While the Surface Pro will boast a Core i5 processor, it does not strike me as being a compelling enough reason for the man on the street to lay down some cold, hard cash when one can already run full applications on a light and portable 13" ultrabook.

Nor does the fact that Microsoft is being coy about two critical factors – battery life and price – encourage me much. Surely if the former was stellar and the latter was going to give users a good reason to open their wallets, the company would have made a fuss about it? Both these issues leave me less than enthused about the Surface's emergence at this point.

## ✔ FOR

Mike Joubert



At this stage there is a lot of information missing from the two Surface tablets coming from Microsoft – most notably screen resolution, 3G connectivity options and more importantly price. But here's why I'm

optimistic, at least about the higher end model – the Surface Pro.

This 10.6" device will run a full version of Microsoft's Windows platform, namely Windows 8 Pro, while including an Intel Core i5 dual-core processor. It's interesting to note that these will also feature on future notebooks. This begs the question: combined with the optional Type- or Touch Covers which includes a keypad, what makes this much different from a great ultrabook? If you can live with less USB ports (it has a USB 2.0 port and microSD card slot), the Surface Pro combines the power of an ultrabook with the flexibility of a tablet. The fact that the Surface Pro also runs Windows opens up the enterprise market, since a number of workers can't use Android or iOS devices fully, simply because it can't run Microsoft specific programs.

Whether this will also apply for the other Microsoft tablet, the Surface featuring Windows RT for ARM-based devices, remains to be seen. ❄

## Also in the office

We never have enough space to feature all the products that made an appearance in our office. Here are some quick thoughts on a few of them.

### The Sony Xperia P smartphone

Sony's new Xperia P smartphone is the flagship S's smaller brother, arriving with a 4" screen (275 ppi) and a dual-core NovaThor U8500 1 GHz chipset. It looks smart and works well, but only comes with Android Gingerbread which does not do it justice. An Ice Cream Sandwich update is expected in September. R5000.



### Samsung Galaxy Pocket smartphone

Samsung's Galaxy Pocket is not going to win any design awards, but it will bring you smartphone goodness for about R1000 if you look in the right place. The 2.8" screen might be too small for some, while its resolution isn't great either (143 ppi), but at least the 832 MHz processor keeps things chugging along nicely.



### Logitech Touch Mouse M600

Apple's Magic Mouse brought touch control very elegantly to the humble mouse.

Logitech's M600 tries the same, providing scrolling abilities and side swipe by simply dragging your finger on the surface. Unfortunately it falls short on added features, and we feel the R1000 asking price is a bit rough.



### Kodak Hero 5.1 all-in-one printer

We like this solid offering from Kodak, since included is both Wi-Fi connectivity, and, our favourite, duplex printing. Although we initially struggled with the drivers, it eventually did what it was told, also impressing with relatively cheap consumables. Get this scanner/copier/printer for R1300. ❄



Acer recommends Windows® 7 Professional.



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## Apple iOS Apps of the month



### Chrome browser

Google's Chrome browser has finally come to iOS. It is speedy, with the most handy feature being that if you sign in to your Google account on your desktop, and then sign in on the mobile version, all open tabs, bookmarks and passwords seamlessly flows across the multiple devices.

### Trippy for iPad

Trippy enables users to gather inspiration for their next trip by viewing photos of places that are simultaneously plotted on an adjacent map. It can also serve as an informal itinerary of sorts, enabling users to mark where they want to go, see what is nearby and view comments from other travellers.

### SAS Survival Guide

If you were going to be stuck on a desert island or thrust into a survival situation by a natural disaster, the SAS Survival Guide app would very quickly justify its \$6 (R48) price. The app covers everything from survival essentials, through to making a camp, finding food and surviving a range of disasters. ❀

## Smartphone top tips

Struggling to master your new smartphone? TechSmart is on hand to provide some helpful tips.

### Apple tip



For those who are convinced that iOS's autocorrect is conspiring to test their limits of the irritation, or worse, make them look stupid, there is a simple way to prevent autocorrect from having its say when it encounters a word it does not know or that is not in its dictionary.

One needs only to type an extra letter on the end of the offending word, and then delete this letter afterwards.

**Tip 2:** If your iPad starts slowing down, check what apps are still running in the background by double tapping the home key, and stop them running by pressing and holding each icon.

### Android tip

If you're struggling to make the day on your Android phone's minimal battery life even though you don't use the device to surf the net, try the following. Go to Wireless and network settings and enter Mobile networks. In the drop down menu of Network Mode, select GSM only. Your phone won't be hunting for the 3G signal the whole time, but remember browsing the web will slow down to a crawl.

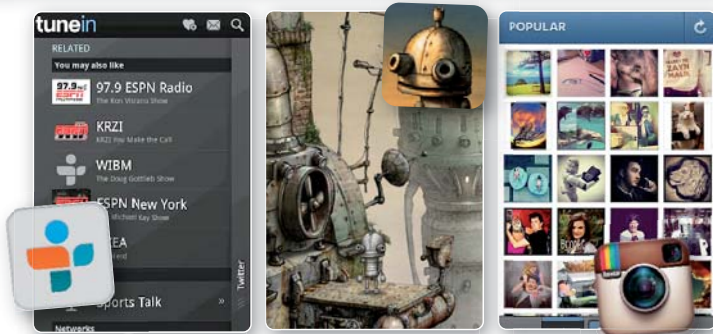


### BlackBerry tip

If you have recently upgraded to a new BlackBerry and do not wish to re-invite all your BBM contacts on the new device, do the following. On your old device, simply press the menu key within BBM, and choose "Options". Scroll down to "Back-up Management", select "Back Up" to save your BBM profile and contacts to either the microSD memory card or your e-mail. Whilst using your new phone simply go to Back-up Management again and choose "Restore". ❀



## Android Apps of the month



### TuneIn Radio

Music streaming is the way of the future, and if you're looking for a great selection of stations to listen to on your Android, you can't do much better than installing TuneIn Radio. Local stations (5FM, Tuks FM, 702) are well represented, while there's no lack of stations playing a wide selection of music. Wi-Fi recommended.

### Machinarium

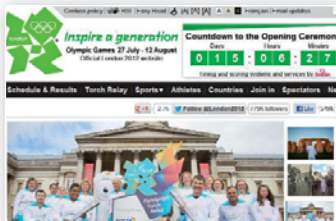
Machinarium is simply put a beautifully crafted game, setting it apart from some of the chaff that can be found in Play Market. The puzzle point-and-click game has a gorgeous steampunk look-and-feel, with an atmospheric, charming score that only adds to its charm. Unfortunately you'll have to pay R38 for the privilege.

### Instagram

Yes we know we are a bit late on this one, but if you're into your smartphone photography and you've not tried Instagram yet, you're missing out. You'll find loads of your iPhone pals on there, but more importantly some excellent photographs, lots of people willing to become followers and, more importantly, great inspiration. ❀

1 in 10. Amount of Android users whose devices are powered by Android 4.0 Ice Cream Sandwich.

# Web Time Wasters



## London 2012

www.london2012.com/

With the Olympics in full swing, this site provides a comprehensive stop, catering to both spectators who want to get closer to the Olympic action and lucky travellers planning their trip. It boasts regular Olympic news, photo galleries and a full schedule of events, all frequently updated.

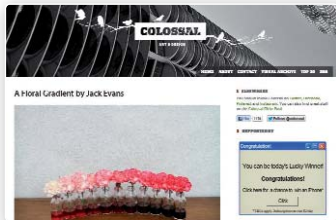
Handily, these can also be sorted by each sport being represented, while a variety of innovative ways to become more involved in the event are detailed. An essential visit for anyone interested in the biggest event of the year.



## Short of the Week

www.shortoftheweek.com

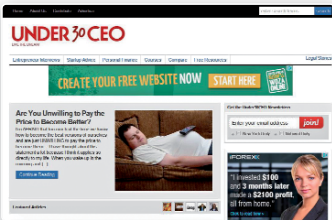
While previously rendered to being the training wheels of aspiring filmmakers, Short of the Week actually highlights these bite sized movies and offers up a new one on a weekly basis. However, rather than dismissing them in favour of the longer and bigger movie, the site showcases some genuinely artful movies. If you are looking for innovative motion picture story-telling, or just something a little different as compared to what is on the box, Short of the Week is a valuable first stop.



## Colossal

www.thisiscolossal.com

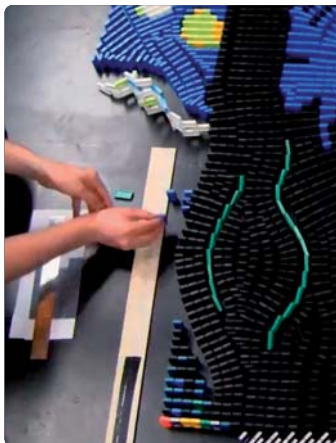
The visual arts (photography, digital art) are well appreciated in our offices, and when we are not indulging in Instagram, flirting with Flickr and dabbling in digital, we are often looking for inspiration. Thus, along with DeviantArt, Colossal serves as a rich source for visual inspiration. The blog offers a variety of work, from Flickr picks, painting, architecture and installation art, much of which is very good and a pleasure to feast one's eyes on.



## Under30ceo

www.under30ceo.com

It has been asserted that much of the resolution to the global economic crises rests on the growth of entrepreneurship, particularly amongst young people or those coming out of university. There's a range of articles updated daily, and additionally, an entire section is devoted to personal finance. The site also offers startup advice and interviews with both young and veteran entrepreneurs.



## Around the web

- Job interview of a lifetime: [bit.ly/ao8ALy](http://bit.ly/ao8ALy)
- How to catch a kangaroo: [bit.ly/kangaroo](http://bit.ly/kangaroo)
- The Muppets get existential: [bit.ly/ihavealeg](http://bit.ly/ihavealeg)
- Some breathtaking driving from Ken Block: [bit.ly/dcshoeskenb](http://bit.ly/dcshoeskenb)
- Starry Night in dominoes: [bit.ly/Lr9Ogk](http://bit.ly/Lr9Ogk)
- The Future is ours: [bit.ly/NlpAsz](http://bit.ly/NlpAsz)
- 50 funny billboards: [bit.ly/LvCuXp](http://bit.ly/LvCuXp)

# TechSmart's top tweets

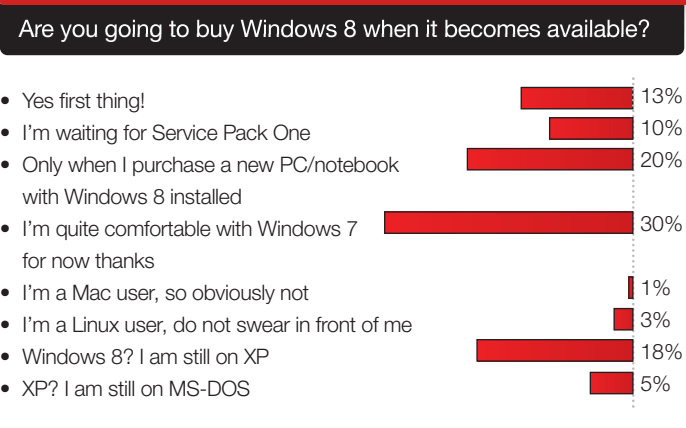


Here are the tweets that struck our fancy last month

- 
**Tyron** @TyronLSA  
 Just walked into a nursery school and gave all the children espressos. \*Ticks off bucket list.  
[Expand](#) [Reply](#) [Retweet](#) [Favorited](#)
- 
**Brett Commaile** @BrettCommaile  
 Wow! The sunrise this morning was so beautiful, I almost believe there's a Higgs Boson!  
[Expand](#)
- 
**Bryan Lawrence** @brandnewbryan  
 Hey where can I get an app that shows my oncoming traffic on my phone while I'm typing?  
[Expand](#)
- 
**Spilly** @spilly  
 Roses are red, I hate slow Internet.  
[Expand](#)
- 
**Deep Fried Man** @DeepFriedMan  
 If Tokyo ends up our next SA President I think it's only fair that the Japanese elect someone named Pretoria.  
[Expand](#)
- 
**Andrew Brauteseth** @guy\_with\_camera  
 iFace. The expression you get when you realize how much you spend on Apple products, apps and data to feed them.  
[Expand](#)
- 
**Gary Meyer** @garymeyerza  
 The world would be a better place if people put aside feelings and beliefs and form opinions on rational evidence-based discussions.  
[Expand](#)
- 
**Danaë Botha** @ThePixelPoet  
 This "work" thing is a major distraction from all the things I want to do.  
[Expand](#)

- 
**DJ Fresh (Big Dawg)** @DJFreshSA  
 My son (9) after meeting Presidents Mandela and Clinton: "Papa, thank goodness you took pictures; NOBODY was gonna believe me".

## TechSmart.co.za online poll results



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- ◊ 22X DUAL LAYER DVD WRITER
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### AR.DRONE 2.0

### ADONIT JOT PRO STYLUS

The AR.Drone was a fun toy when it arrived two years ago, but the new flyer promises an updated design and fresh features that put it much closer to the realm of your own personal spy drone. It is now stuffed with far more pro-level features and even offers a somewhat sleeker and, according to Parrot, more resilient design. **Now available!**

The professional, most precise stylus for iPad and capacitive touch screens. The Adonit Jot Pro is not your regular iPad or iPhone stylus. Instead of a round, mushy finger-sized capacitive tip, it has a very thin, very hard tip like a mechanical pencil, with a large, round, transparent capacitive disk on the end.

### Wahoo Fitness

Wahoo Fitness products wirelessly connect your iPhone to fitness sensors. With Wahoo Fitness, your iPhone, the best fitness Apps and real-time activity stats are all in the palm of your hand - or on your arm, or mounted on your bike. **Now available at all stores.**



### Efergy E2 Electricity Monitor

An electricity monitor that is simple to install and use. The sensor wirelessly sends information about the amount of electricity you are using to the display monitor. Input the amount your energy company charges you for each kilowatt-hour and you can see how much you are spending on electricity instantly.



### Davis Vantage Vue

The latest Vantage Vue wireless weather station provides accurate, reliable weather monitoring in a self-contained, easy-to-install system. Vantage Vue gives you all the weather data you need for home use, education, boating and more.



### Kikkerland Gear Clock

Looking for a modern clock that makes a statement? This funky clock has movable gears that turn while the clock ticks away. This time piece will surely attract attention wherever it is placed. Can also be wall mounted.



### Neo Cube

The Neo Cube is an entertainment device like no other in the world. The Neo Cube is composed of 216 individual high-energy rare-earth magnets. This allows you to create an outrageous number of shapes and patterns. **Now available in different colours**



### Corkpops Legacy Wine Opener

The CorkPops Legacy must be the simplest, fastest and easiest way to open a bottle of wine. Instead of the usual wire corkscrew, the Legacy has a non-stick coated, hollow needle, through which the CorkPops cartridge passes a puff of carbon dioxide - the cork just pushes itself out of the bottle. It's that easy!



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# The Amazing Spider-Man

Swing into this parlour



The Amazing Spider-Man swings his way back onto the console, and this time, gives us the chance to really fly.

The game starts as an epilogue to the recent movie of the same name, rather than just following the same events portrayed in the film. Peter Parker becomes embroiled alongside Gwen Stacy in a virus outbreak, after an accident at

Oscorp Labs results in some very dangerous cross-species escaping the sinister lab and wreaking havoc on the populace.

Once you get past the opening level, the game shows its sandbox roots, as a snarky Spider-Man has to contend with both robots and cross breeds. Along with the chance to upgrade Spidey's abilities, the game more importantly gives players the exhilarating chance to swing around a good portion of a well detailed Manhattan.

## Swinging into success

Overall, the production values are very high, which is hardly surprising, considering that it is Beenox at the helm, developers of Spider-Man: Edge of Time. While the voice-overs and the accompanying soundtrack are faultless, the game's graphics are also very well detailed.

"A true Spider-Man title needs to convey Spidey's inherent agility, which the Amazing Spider-Man does very well."

The one issue that did take a little getting used to is the fluidity of both the camera and the controls, at least on the Xbox 360 version. Granted, a true Spider-Man title needs to convey Spidey's inherent agility, which the Amazing Spider-Man does very well; however, sometimes the camera left us facing or web shooting in the wrong direction in confined areas.

## Play it your way

On the plus side though, a handy ability, Web rush, enables players to temporarily freeze time and zip to the nearest available point, which makes swinging one's way around a breeze. Combat has also been improved somewhat since the last entry in the franchise, echoing that found in Batman: Arkham City to an extent.

You can elect to play the game three different ways: on Human level, which favours an all action approach and is geared towards beginners and casual players; on Hero level, offering balanced action and stealth; or on Superhero level, which is reserved for hardcore players who opt for a predominantly stealthy approach.

## To the point

The Amazing Spider-Man is well worth playing, spinning a web of fun open world gameplay, that actually plays a great homage to the titular webslinger. RRP R450. [RN] 🍷

## TechSmart's To Do List for August



### To watch



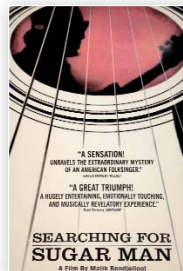
#### Total Recall

Arnold Schwarzenegger's 1990 version was a romp, and all signs point to the fact that the new *Total Recall* remake, starring Colin Farrell and Kate Beckinsale, will be just as good. Based on a Philip K. Dick short story, Douglas Quade (Farrell) finds himself with previously unknown skills of the killing kind after visiting a company that implants fake memories. What's real and what's not? It's a classic Dick story, now with awesome CGI.



#### Abraham Lincoln: Vampire Hunter

Talk about revising history – you can't get much better than *Abraham Lincoln: Vampire Hunter*. In this deranged alternative timeline, American president Abraham Lincoln (Benjamin Walker) picks up an axe to go after Dracula's ilk trying to take over America. Should be fun to watch if nothing else. Coming up, *Winston Churchill: Zombie Killer*, and *Thabo Mbeki: Ghost Buster*.

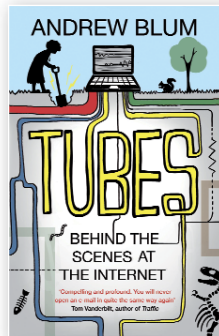


#### Searching for Sugar Man

American folk artist Rodriguez's 1970 album *Cold Fact* was massively popular in South Africa but did not make many waves anywhere else. This documentary tracks two SA fans' quest to find out what happened to the Sugar Man. The trailer looks inspirational and the movie won two awards at the Sundance Film Festival, including World Cinema Documentary Special Jury Prize. We're sure it's going to melt South African hearts.



### To read



#### Tubes by Andrew Blum

R195, Penguin Books

*Tubes* will certainly change the way you look at and think about that most pervasive of modern miracles, the internet. Journalist Blum argues that the internet is not as nebulous as it seems, and actually can be likened to places in the world, while its tubes (fibre optic cables) increasingly contain our thoughts, our ideas, our communications and personalities. *Tubes* is written in a very engaging style, which makes it both easy to 'get into' while still being intelligent, thought provoking and highly interesting.



### To play



#### Darksiders 2

We simply cannot wait for the hotly anticipated follow-up to *Darksiders*, which should arrive at the end of August. The fearsome horseman of the apocalypse, Death, tries to redeem his brother, the first game's lead character, War, from prematurely causing the apocalypse. Expect a more agile protagonist, a significantly vaster game world, distinctive and sumptuous environments, a variety of usable weapons and yet more memorable characters. 🍷

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