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Panasonic

Genuine Windows® 7 Professional Intel® Core™ i5-2520M vPro Processor (2.5Ghz, Intel®Smart Cache: 3MB) 10.4" XGA 160 GB (Serial ATA) HDD 2 GB DDR3 SDRAM (8 GB Max)

Panasonic ideas for life

For more information: Vanessa Coopasamy (011) 313 1492 (vcoopasamy@pansolutions.co.za) or Cornette Van Den Berg (011) 313 1618 (cvandenberg@pansolutions.co.za)

Sales direct to trade and public. E&OE

Editor TechSmart & TechSmart.co.za Mike Joubert > 083-290-2889 michael@techsmart.co.za Business manager George Grobler george@smartpublishing.co.za

Print media manager

Suzanne Rall

suzanne@smartpublishing.co.za

Sales and marketing manager

Anneke Claassen > 083-301-9134

anneke@smartpublishing.co.za

Advertising (Agencies)

Carmel Ann Singh > 079-515-8708 carmel@smartpublishing.co.za

Designers Brett Wilson, Otto Ueckermann

Contributors Mike Joubert [MJ],

Hanleigh Daniels [HD], Ryan Noik [RN],

Linda Pretorius [LP]

Accounts & subscriptions

Ronel Keet > 012-342-5141

accounts@techsmart.co.za

Distribution

Renier van Vuuren > 082-555-6866

renier@smartpublishing.co.za

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The TechSmart Team The Green Issue February 2012



The end is (not) nigh

I 'm not one for sharing the idea of a 2012 apocalypse and various end of the world scenarios, but looking at the current state of the world, with a lot of incompetent politicians mad with power and a capitalistic system that is running amok, it's easy to believe that we're in the end-times already.

Despite this I remain extremely optimistic, because the internet has fundamentally changed how information flows and the way we interact. No longer is it possible to hide the corruption or curfew the power of the people - if this information is out there, it will be brought to light.

A good case in point is the unprecedented resistance worldwide from a bill originating in the States called SOPA (see p5), legislation that sought unjust control over the use of copyrighted material. Many sites, including Wikipedia, blacked out for a day in order to protest against the bill, lobbied for by the entertainment industry. The end result might have been the shelving of the bills, but I believe even more important is a new found vigilance the protest has fostered regarding the freedom of the internet.

Many people are waking up to the fact that the world around us is not right, and the people we've entrusted to run this show have a self-serving agenda. If this is to change, a free and open internet is crucial to the process.

Enjoy the issue, Mike (michael@techsmart.co.za)

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If you're planning to spend some time in front of the big-screen, 2012 won't disappoint, with some spectacular blockbusters due for release.

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Our trigger fingers are getting itchy when thinking about what's lying ahead in 2012. Here are some of our top picks for the first half of the year.









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Top Tech Titbits



Kodak's demise signal the end of an era

In what is at least in part a sign of a sad end to a bygone era, the beginning of this year saw the iconic photographic

company, Eastman Kodak, file for Chapter 11 bankruptcy protection. The company is also in the process of suing companies the likes of Apple, HTC and Fuiifilm, for patent infringement.

Once the providers of the photographic film of choice for professional and enthusiast photographers alike, Kodak has struggled to remain competitive in an era where digital photography terminated the photo film business.

Eastman Kodak rose to prominence with the world's first "snapshot" camera, the much adored Brownie, introduced in 1900. At a cost of \$1, it was not only affordable but also so simple that kids could use it.



Internet blacks out against **SOPA/PIPA**

here are not many pieces of legislation that are stopped dead in their tracks. However, that is exactly what happened to the United States'

Stop Online Piracy Act (SOPA) and to a lesser extent its counterpart, the Protect IP Act (PIPA), that was set to crack down on sharing links and content deemed to be copyright protected.

At one point the outcry reached a crescendo, such that Wikipedia, Reddit and Boing Boing 'went dark' for 24 hours in protest of an internet more vigorously controlled by the US government.

The proposed bills were so unpopular and prompted such a vociferous response, that previous senators who initially supported the bill did an abrupt about face and distanced themselves from it, causing SOPA at least to be placed on hold.



Google launches WOZA online

eb search behemoth Google has announced the launch of Woza Online, a local initiative with which the company and its partners are aiming to bring local small and medium enterprises (SMEs) online. South African businesses will receive the opportunity to create

their own websites via the Woza Online site (www.wozaonline.co.za) and develop an online presence for free, within the space of one hour or less.

Google has launched similar initiatives in 23 other countries around the globe ranging from the UK, Canada and Australia through to Brazil, France and Poland. Within Africa, this programme was introduced in Kenya and Nigeria last year, with these countries seeing more than 20 000 businesses going online within the first two months.

Hot New Products

Nikon D4

e saw Canon take out the big guns with their EOS 1D X, now it's Nikon's turn. Their latest flagship, the D4, will make any photographer drool. The FXformat camera offers 16.2-million pixels, an ISO range from 50 to ISO 204 800, along with a 51 focus point AF system. A 3.2" LCD monitor is onboard, as is a much improved video functionality



in the form of full HD (1920 x 1080) movie recording function at 30 fps. Three movie formats are also on offer, which is aimed at addressing a variety of video requirements, as is a continuous frame rate of 10 fps.

Razer gaming tablet (Project Fiona)

he Razer gaming tablet emerged as one of the more interesting concepts at the recent Consumer Electronics Show (see more on p6). Gaming peripheral maker Razer's tablet-like device (codenamed Project Fiona) offers PC gaming on a 10" touchscreen, aided by



two controllers on either side of the screen. Even though firm details are sparse, we do know that the device sports a powerful Intel Core i7 processor and runs on Windows 7. Might we see a new direction for tablet gaming - watch this space.

Tag Heuer Mikrogirder 2000

oes 1/2000th of a second matter to you? If it does, then Tag Heuer might have something right up your alley. Their new Mikrogirder 2000 concept watch uses a vibrating linear oscillator instead of the classic hairspring and balance wheel to accomplish its mind-blowing accuracy. While regular watches functions at about 28 800 beats per hour, the 2000 matches an incredible 7 200 000 beats. As with all things Tag, we're sure it will have the price to match the accuracy.



Nike Golf Method Concept putter

orget about concept cars or watches - how about a concept putter? Nike's new Method Concept has the appearance of a blade, yet plays like a mallet. The latest entry into Nike's Golf Method putter franchise sports a light-weight aluminium body supported by a stainless steel back ring. This strange design allows for a deep centre of gravity to produce a better roll with less skid - that is if you don't mess up your shot. It will be hitting the US greens this

month, with no news yet on its arrival in SA. 4





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Sci News



Walking wounded

Here's some advice worth listening to. According to a recent report in the journal *Injury Prevention*. walking with headphones on can be guite dangerous. Researchers studied more than a hundred accident reports in which pedestrians wearing headphones - mostly young people were hit by moving vehicles. In almost a third of these cases, the vehicles sounded their horns before the crash. Alarmingly, such accidents almost tripled over the past six years. It seems that listening to headphones while walking not only divides your attention but also drowns out sounds around you, which makes you unlikely to hear the warning of an oncoming car. Bottom line? When crossing the road, it's best to keep your eyes and your ears open.



Hot off the press

Graphene is hot news. And now it seems even more so because it helps to keep things cool. Scientists report in a January issue of the journal Nature Materials, that changing the chemical make-up of this special carbon crystal can transform it into an effective heat conductor. In its natural state, graphene contains a small proportion of carbon atoms with 13 instead of 12 electrons around its core. However, when the scientists removed the 13-electron atoms from graphene, they found that its ability to conduct heat increased significantly. Because effectively getting rid of heat in electronic circuits is crucial to developing ever-smaller devices, graphene may just be the key to next-generation electronics.



Finding fine food

Predators are picky eaters. According to a recent issue of the Proceedings of the Royal Society B. predators choose foods that give them a balanced diet. Researchers collected female ground beetles, known to feast on slugs, aphids, moths and other garden insects, and divided them into two groups. One group could choose foods that provided both protein and fat, while the other group was offered only high-fat or high-protein foods. The beetles that fed on a combination of fat and protein sources later produced more and healthier eggs than those that did not follow a nutritionally balanced diet. Similar behaviour has also been found among both herbivorous and omnivorous insects. The researchers say opting for balanced diets is likely a trend across the animal kingdom. [LP] 🐍

More amazing science

Mapping the psychedelic brain: bit.ly/mushbrain

How to learn to love maths: bit.ly/ilovemaths

Online gamers make first crowdsourced redesign of a protein: bit.ly/gamingprot

Green News



Getting cash for your eWaste

In today's tech loving world there seems to be a gizmo for every conceivable need. But what do you do with the phones, PCs and gadgets that are too dated to pass on to family? One solution showcased during this year's Consumer Electronics Show (CES, p6), dubbed the ecoATM kiosk, might just provide an answer. It employs patented machine vision, electronic diagnostics and artificial intelligence to evaluate and buy-back used smartphones and MP3 players directly from consumers for cash or store credit. These devices are then recycled at a later stage. A nationwide roll-out of the ecoATMs for the US is planned for 2012, but no local release info is available yet.



Going the extra green mile

A big hindrance for electric vehicles (EVs) is these cars' limited range compared to petrol-powered vehicles, with Nissan's Leaf for instance only able to do around 160 km before needing a recharge. Luckily IBM is researching lithium-air cell electric batteries which will enable a whopping 800 km range. According to New Scientist, lithium-air cell batteries have a theoretical energy density of over 1000 times that of the standard li-ion batteries. One challenge facing IBM though, is the chemical instabilities which limit the lifespan of this battery when recharging, making it impractical for use in cars today. Researchers are looking to solve that issue in order to have a full-scale prototype by 2013 and commercial batteries ready by 2020.



Vampire chargers illegal

According to Associated Press, California will become the first state in the US to target energy wasting chargers dubbed "vampire battery chargers". These waste up to 60% of the electricity that is drawn from power sockets, since they keep pulling power even after a device's battery is full. Despite opposition from within the consumer electronics business community, the California Energy Commission voted in favour of regulating these power-wasting devices. This move may deliver massive energy savings for the state, as it is reported that each individual household boasts 40 power-dependent devices with standby power consumption accounting to around 13% of residential electricity use. *

Other interesting green news

New eco-friendly Panasonic Blu-ray player switches on when you approach it: prn.to/ecoBlu-ray

Bubble power (Air lubrication technology) could make ships more fuel efficient: bit.ly/bubblepower

Qualcomm develops wireless power transmission system for electric cars: bit.ly/nomoresocket

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EBIG SOPA

FFATURE

The latest assault on the internet has come in the form of the controversial Stop Online Piracy Act (SOPA), an American anti-piracy bill which has been hotly contested by the tech industry and human rights organisations alike.



ad it passed, SOPA (and its sister the Protect IP Act, or PIPA) would have targeted websites that were deemed to be hosting copyright content, and shut down entire sites, as well as have them removed from search engines if so much as a link to potentially copyrighted content was found. Additionally, unauthorised streaming of copyright video would be made a crime, punishable by five to ten years behind bars.

Discontent

Facebook, YouTube and Twitter were all understandably up in arms about this, as they rely on user generated content for their existence and implement very little control over what that content is allowed to be.

Those who opposed the bill – which included technology companies, human rights groups, internet engineers and ordinary users - pointed out that it was far too draconian in application. For example, entire sites could be blocked or shut down when an external contributor posts a link that is deemed to infringe on copyright, irrespective of whether those running the site had any hand in or knowledge of the offense.

The web goes black

In protest against the bills, Wikipedia and Reddit, amongst others, blacked out their sites for 24 hours, and instead urged visitors to protest the bills by emailing or calling their representatives.

The blackout and the resulting backlash worked. Senators who previously supported the bill abandoned it, and first SOPA and then PIPA was placed on indefinite hold.

It comes as little surprise that the main supporters of the bill included large Hollywood studios, such as Twentieth Century Fox, who are understandably amongst the main victims of those truly illegal sites which peddle pirated

However, perhaps the most disturbing part of SOPA is that the bill originates not from China or North Korea, but from the US, which proclaims freedom of speech as a core value.

Of even greater concern was the fact that a potentially dramatic and sweeping internet changing move is being endorsed, if not encouraged, by the multibillion dollar entertainment industry, allegedly pushed through by Senators who have been lobbied by these companies.

It begs the question: has the internet gone on sale to corporate interest? Because that, regardless of where you live in the world, or under what guise it is implemented, would be the scariest aspect of all. [RN].



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The future starts here

Consumer Electronic Show 2012



The latest Consumer Electronic Show, held last month in Las Vegas, had a bit of everything to tantalise tech enthusiasts' interest, including ultrabooks, tablets, cameras, phones, and gadgets. Here's our pick of the standout products that will be appearing in 2012.

Ultrabooks



HP Envy Spectre

As HP's first foray into the ultrabook territory, the Envy Spectre boasts a litany of alluring features that made this one of the top must-sees at this year's CES. The first of these is an undeniably attractive appearance on a 200 mm thick body that weighs 1.7 kg. Base specifications include a Core i5 processor and either 4 GB or 8 GB of memory, along with a 128 GB or 256 GB solid state drive (SSD).

Beyond this, HP's ultrabook features a 14" Gorilla glass screen on a 13.3" chassis, a 1600 x 900 display resolutions and Beats Audio. Additionally, the Spectre includes a Near Field Communication (NFC) chip and a very admirable nine hours of battery life per charge.

Samsung Series 5 Ultra

Most ultrabooks are light, thin, powerful and almost universally have ditched the optical drive. The Series 5 Ultra is the exception to this rule though, as the 14" model includes said drive. Along with a high



resolution 600 x 900 matte display, the Series 5 Ultra further sets itself apart by boasting a hybrid drive that consists of 16 GB ExpressCache memory for rapid boot times and a 500 GB hard drive for those who want to keep their media on the ultrabook without worrying about running out of space. It will be released this month in SA (R10 199 for 13 $^{\prime\prime}$), R10 299 for 14 $^{\prime\prime}$).

Lenovo ThinkPad T430u

enovo's 14" ultrabook offering has been likened to being a slimmer Lenovo X1, boasting the same excellent keyboard. Lenovo's first ultrabook is set to sport a screen resolution of 1366 x 768, along with a choice between solid state drives (SSD) or up to 1 TB Sata hard drive. Rumour has it that the T430u will further boast Intel's new Ivy Bridge processors. As favoured by the business set, for whom security is of prime concern, the ultrabook also includes a fingerprint reader.



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from the pack, but apparently,
Asus' MeMO 370t manages to do just
that. The MeMO is a 7" Android tablet that boasts
the powerful Tegra 3 processor, 16 GB of
storage, along with 1 GB of memory. All together,
this should make short work of games and apps,
and apparently browsing the web on the device is
dreamy. The MeMO also offers up a 1280 x 800
resolution and Google's latest Ice Cream
Sandwich OS, and is expected to launch later this
year at the affordable \$250 (R2000) mark.

differentiating themselves

OLPC XO 3.0 tablet



Not every tablet is targeted at the technology enthusiast – some, like the non-profit group One Laptop Per Child's (OLPC) XO 3.0 tablet, is instead attractive to an entirely different market altogether. Just like their excellent netbook, the new tablet is targeted at children in developing countries. However, rather than being sold in retail stores, the tablet will instead be sold to governments of countries seeking to deploy a low cost computing solution.

The XO 3.0 sports an 8" 1024 x 768-resolution PixelQi display, 512 MB of memory and countries can choose between it running off Android or Sugar operating systems. Most notably it can be charged using a solar panel or a hand crank. What this means is that computing could become that much more available in countries traditionally on the wrong side of the digital divide.

The IdeaTab S2 seems to have taken the phrase "everything but the kitchen sink" and ran with it, showcasing a 10.1" Android tablet that features a 1280 x 800 LED-backlit IPS display, 1 GB of memory, a solid state drive (SSD) up to 64 GB all running on Android Ice Cream Sandwich.

While it curiously does not boast Tegra 3 (instead it packs 1.5 GHz dual-core Snapdragon processor) it does have a keyboard dock, which adds two USB 2.0 ports and an SD card reader to its offerings. While it offers a sufficient nine hours of battery life, it all weighs in at 580 g-5 grams lighter than the excellent Samsung Galaxy Tab 10.1.

Smartphones

Huawei Ascend P1 S

Chinese Cmanufacturer Huawei's Ascend P1 most considerable and standout feature is its wafer thin profile - at 6.68 mm, this bests even the scant Droid Razr's 7.1 mm. Even so, it also packs some other equally as impressive features into its slender body, including a 4.3" Super AMOLED screen lathed in Gorilla Glass, and a dual-core



1.5 GHz TI OMAP 4460 Cortext-A9 processor while running Google's Ice Cream Sandwich OS. In case that's not enough, the tantalising phone offers an eight megapixel camera that can record 1080p video.

Lenovo K800 Medfield

ven if the K800 did not have the distinction of being the first smartphone powered by Intel, it would still catch our attention. Boasting a 4.5" screen and running off a 1.6 GHz Intel Medfield processor, the phone further

features an 8



megapixel camera that offers up ISO 3200. Despite running a modified version of Android 2.3 (Gingerbread) rather than Ice Cream Sandwich, and although this phone will not be seen in SA it still looks like promising foray for Intel, who is strong on the PC processor front but lacking foothold in the smartphone and tablet market. Intel is also receiving support from Motorola, who will be releasing an Intel powered phone in the second half of this year.

Cameras

Lenovo

IdeaTab S2

Fujifilm X-Pro1



While there are many cameras that impress with their specifications, an argument could be made that not all have a distinctive character to

them. This doesn't apply to the Fujifilm X-Pro1, which to all appearances resembled a rangefinder from the 1970s.

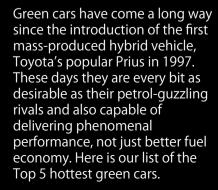
However, its technology under the hood is pure 21st century; a mirrorless design, APS-C sensor and 16 megapixels capturing capacity, ensure that pics with this retro beauty won't look like they are from the past. We can't wait to get our hands on one. [RN] •



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Top 5 Hot Green Cars

When going green doesn't mean going slow



5. Volvo V60 plug-in hybrid

Volvo calls the V60 the most technically advanced model it has ever produced seeing that its front wheels are powered by a five-cylinder 2.4-litre turbo-diesel engine producing 160 kW, whilst the rear wheels get their power from a 52 kW electric motor. Equally impressive is the vast list of standard equipment on offer, including speed-dependent power steering, front and rear parking sensors and high performance multimedia DVD audio system boasting four 40 W amplifiers, eight loudspeakers and a 7" display.

To round it off, a smartphone app enables the driver to, amongst others, set the climate control to pre-cool the car on a hot day or make sure you get into a toasty warm vehicle in winter.

4. Citroën DS5

From the technical V60 we change down a few gears to a very elegant, luxurious offering in the Citroën DS5. This all-wheel-drive compact executive car offers buyers a choice between numerous conventional petrol and diesel engines, or PSA Peugeot Citroën's Hybrid4, which combines a 163 hp (about 121 kW) 2.0 HDi diesel engine with a 28 kW electric motor, sending the power to all four wheels as it is required. The electric motor can also fly solo, powering the vehicle by itself on the condition that it is sufficiently charged.

3. Lexus LF-LC Sporty 2+2 Hybrid Coupe concept

The front-engine, rear-wheel drive LF-LC Sporty 2+2 Hybrid Coupe concept might have an underwhelming name, but its aggressively styled angular looks and futuristic interior more than make up for this. With driver input via a touchscreen control board on the center console, it enables the driver or front passenger to control the audio system, change the climate control settings or enter a destination for the satnav.

Besides the touch-enabled control board, there are touchscreen controls located on each door to perform functions like operate the windows, make seat adjustments and access the infotainment system.

2. BMW ActiveHybrid 5

One of the most famous brands in motoring, BMW, is renowned for its sporty, executive saloons and M badge boasting sports cars. However, the German car maker is also responsible for some gorgeous eco cars, as illustrated by the BMW i8 concept that featured in *Mission Impossible 4: Ghost Protocol*.

Changing lanes from the conceptual field to reality is the ActiveHybrid 5, powered by a turbo charged three liter straight-six that in combination with an electric motor, delivers 250 kW that propels this sedan to 100 km per hour in less than six seconds and to a regulated top speed of 250 km/h. All this while managing under six and a half liters per 100 km. This is one hybrid you can expect to pass you on the N1 during Q2 of this year.

1. Porsche 918 Spyder Hybrid

Porsche's sublime looking plug-in supercar delivers more power (around 521 kW) from its high-revving V8 engine, assisted by two electric motors, than the conventionally powered Porsche 911 Turbo S (390 kW). It is quicker than the Turbo S (0-100 km/h in 3.3 seconds, top speed of 315 km/h), being capable of a top speed of 320+ km/h and accelerating from 0 to 100 km/h in a mere 3.2 seconds. Even with this phenomenal performance figures this eco car will deliver fuel consumption of just three litres per 100 km and $\rm CO^2$ emissions of 70 g/km. Fans unfortunately have to wait a bit longer for this Hybrid to hit the roads, since it will only see the light of day in the US at the end of 2013.









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< 200 million & > 525 million. Number of Office 2010 licences and Windows 7 licences Microsoft has sold since launch

Bridge

Intel's next generation chip explained

vy Bridge is the code name of Intel's next generation microprocessor architecture, the successor to processors based on the current Sandy Bridge architecture. As with all processor improvements there are both speed and performance advantages.

One of its distinguishing features is the fact that Ivy Bridge employs 22 nanometer architecture (the current Sandy Bridge processors uses 32 nanometers), resulting in even smaller processors and better battery life.

Ivy Bridge also heralds a first for commercial processors – the introduction of 3D transistors in the form of Intel's Tri-Gate technology. Much like more people can live in a smaller area when occupying a skyscraper, this new 3D structure allows for a denser array of transistors. Where previously only one planar "gate", which controls a transistor's on or off state, could be fitted, three are now placed on a 3D silicon fin. This is essential for keeping Moore's Law rolling along, with engineers also able to adjust the height of the fins in future. Intel believes that 3D tri-Gate technology offers up to 37% performance increase at low voltage, as compared with the previous 32 nm transistors.

Ivy Bridge is expected to make an increasingly visible appearance in notebooks in the second half of this year



What is Moore's Law?

Moore's Law, named after Intel co-founder Gordon E. Moore, states that every two years, the number of transistors that can be placed inexpensively on an integrated circuit doubles. Stated more than 40 years ago, the premise has been proved accurate since the mid sixties, and is often cited by scientists and futurists alike as an indication of the exponential growth of processing power and technological progress.

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Unravelling lvy Off to a good start

Acer Aspire S3

Acer's Aspire S3 is the first ultrabook that we have reviewed this year, and despite its shortcomings, it proved to be a good start to Acer's ultrabook foray, and an above average notebook.

The first positive that stood out for us in the S3's favour is how feather light and easily transportable this 13.3" offering actually is. At 1.38 kg the S3 was highly comfortable to perch on our laps for long periods - a benefit all the new ultrabooks are bringing to the table.



On the appearance front, the S3 has pleasingly curved corners, with an all silver cover that is only interrupted by the Acer logo. Upon opening the ultrabook however, we were met by a somewhat understated combination of chrome and light grey. Luckily the S3's chiclet keyboard was impressive. The keys in particular offered up just enough depth, which easily offset the fact that the enter, backspace and shift keys were smaller than

More importantly though, the S3's overall build quality was solid, showing no noticeable flex. One of the device's stand-out features is its screen. This 13.3" beauty offered a maximum resolution of 1366 x 768, in a screen that is bright, crisp with particularly good viewing angles along with excellent contrast.

i7 performance

Under the hood, the Aspire S3 sports a Core i7 2637M CPU, clocked at 1.7 GHz, along with 4 GB of memory. As was expected from the Core i7, the general performance was very good. Programmes opened and ran speedily, and the processor coped more than ably with intensive tasks, such as benchmarking and graphics applications (although no dedicated graphics card is included, only Intel's offering).

The S3 also offers a decent 240 GB solid state drive (only 200 GB usable). This allowed for speedy boot-up times, including the Aspire S3's ability to wake up from sleep and be ready in 5 seconds, and similarly good-to-go from a powered off state in a speedy 17 seconds.

The sound produced by the S3 was superb crisp, clear, surprisingly loud - all of which made watching YouTube videos and listening to music an absolute pleasure. Battery life was also very good, offering six hours on a single charge.



"As was expected from the Core i7, the general performance was very good."

To the point

The Aspire S3 proved to be an all-round above average performer in a variety of aspects, most notably its performance, screen, keyboard and sound. Available from R9999. [RN] 🐁



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With instant on, instant connect, light and slender form, and its long battery life - Acer Aspire S3 Ultrabook powered by 2nd generation Intel Core is processor brings you fresh and exciting user experience on the go.





13 mm (0.51") thin, 1.35 kg light



Resumes in less than 2 seconds*, Lowest power consumption



Connects to favorite access points (Aps) 4X faster



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Apple iPhone 4S



Apple's latest iPhone might not be the 5 everyone was expecting, but the 4S is certainly faster, cleverer and more usable than before.





Although the 4S boasts a new processor, improved camera and a voice controlled digital assistant, for some the fact that it looks the same as the previous model came as a big disappointment.

Same design, but faster

Unhappiness about its lack of a new design aside, Cupertino chose to do most of the tinkering underneath the smartphone's bonnet.

This makes for an all-round faster experience, take for example its new dual-antenna design allowing the 4S to intelligently switch between these to send and receive data. In practice, this translated to significantly faster downloads over 3G, compared to the iPhone 4. Apple also included the A5 chipset that does duty

in the mighty iPad 2, incorporating the dual-core 1GHz Cortex A9 processor. The difference the A9 makes is discernible, resulting in smoother and noticeably quicker performance whilst navigating the iOS 5 mobile operating system (OS) and when opening and closing apps.

Speaking of the OS, iOS 5 may look a lot like iOS 4 but there are numerous improvements, such as the BBM-like iMessage instant messaging service, access to the camera and music player from the lock screen, as well as the enhanced Android-rivalling notification

system. One function that the iPhone 4S sports over any other iOS 5-running mobile device is, of course, the helpful Siri, an intelligent digital assistant for the smartphone (read more about it on the right).

An even better camera

"A faster CPU,

enhanced antenna,

new optics and Siri

combine to make the

4S one of our top

three smartphones."

As the iPhone 4S boasts a new 8 MP rearfacing camera with a new custom lens, a larger f/2.4 aperture and an advanced hybrid IR filter

to produces sharper, brighter and more accurate images, we were able to capture crisp looking and detailed photos. It certainly is one of the best, if not the best, camera on a smartphone these days. This new snapper also allows for the recording of full HD (1080p) videos, putting

it in the same video-recording league as devices such as the Samsung Galaxy SII and HTC Sensation.

So whilst the Apple's new iPhone may look like the outgoing model, it features a faster CPU, enhanced antenna, new optics and Siri which combine to make it one of our top three smartphones currently on the market. It goes for an RRP of R7699 for the 16 GB model, R8999 for the 32 GB model and R10 299 for the 64 GB model. Thanks to Vodacom for providing the review unit. [HD] *



Siri: Can it live up to the hype?

Although voice commands and voice search functionality aren't new, the iPhone 4S's Siri digital assistant's ability to understand context definitely is.

ike most voice-controlled apps, using Siri can be a hit-and-miss affair, but when it works (more often than not), it enables users to speak naturally to the phone as though they are talking to another human being.

Unfortunately you need to be connected to the net for Siri to do its business.

Siri doesn't just have its practical uses, such as calling people, setting reminders, searching for info on the web and sending SMSs. It can further be used to indulge in some clever dialogue. For instance, we asked it what the best iPhone is that Apple makes and it replied: "The one you're holding." When asked who makes the best computers it came back with: "All truly intelligent users prefer Macintosh". Telling Siri "I love you" came back with "You hardly know me".

After the initial fun of checking what Siri can and cannot do, the novelty wore off and we found ourselves visiting it less often. That said, there are a number of iPhone 4S users who can attest to their lives being made a lot easier with this little digital assistant.

Not lucky enough to have the iPhone 4S? A good alternative to Siri is the Vlingo voice assistant application available for Windows Phone-running smartphones, BlackBerry devices, Android-powered phones and the iPhone.



R18 000. Somewhat steep price of the Blackberry Porsche P'9981 smartphone

Nokia's Windows Phonerunning smartphones: What you need to know

Nokia's new Windows Phone-running Lumia phone range landed in SA at the end of last month. It marks a much important departure from Nokia's old and tired Symbian OS, to the brave new world of Windows Phone. Here is all you need to know about the new Lumia 800 and Lumia 710.



Illuminating the Lumia range: Lumia 800 Lumia 710 **CPU** 1400 MHz Qualcomm MSM8255 1400 MHz Qualcomm MSM8255 TOUCHSCREEN 3.7" ClearBlack 3.7" Curved AMOLED ClearBlack CAMERA 5 MP Auto Focus, LED Flash and 8 MP Auto Focus with Carl Zeiss Optics, HD Video (720p) 2x LED Flash and HD Video (720p) WEIGHT 126 a 142 g SIZE 119.0 mm x 62.4 mm x 12.5 mm 116.5 x 61.2 x 12.1 mm RRP TBA, available 2nd quarter 2012 R6999, available 7 Feb 2012



Features to expect:

Office and SkyDrive

A key benefit of the phones being Windowsbased is Microsoft Office integration in the form of the Microsoft Office hub. This is one of the strongest documentation creation and editing packages on offer for any mobile OS, and includes the mobile versions of Microsoft Word, Excel, PowerPoint as well as SharePoint. Users also have access to Microsoft's SkyDrive, a free cloud-based storage service offering users 25 GB of online storage for documents, music, photos and videos.

Nokia Drive and Maps

Users of Nokia's Symbian-operating smartphones as well as the N9 will be very familiar with the company's excellent Nokia Drive, their free turn-by-turn drive and walk navigation offering that boasts voice guidance.

Nokia Drive will also be available on their new Windows-based devices and helps set Nokia's devices apart from the other crop of Windows Phone OS-running mobiles out there. It includes the ability to employ maps in either a 2D or 3D view and also to change the screen contrast to enhance the readability of the display during night driving.

Smartphone + Xbox 360 = :-) gamers

Xbox fans will be happy about the close knit integration between the 360 and Windows Phone. Upon downloading the Xbox Companion App from the Windows

Phone Marketplace, you will be able to do things such as using your smartphone as a remote

control for the Xbox. Users can edit their Xbox Live avatar, keep an eye on their achievements and receive messages from friends who are on the Xbox Live network, informing them amongst others to join them for a quick gaming session in Battlefield 3.

Nokia Mix Radio and Music Store

Mix Radio enables Nokia users to stream a massive library of music for free (besides the data cost involved of course) by utilising a 3G or Wi-Fi connection, while the Nokia Music Store portal allows users to buy music and download it straight to their device. [HD] •

Nokia: Why Windows Phone?

2011 was a very turbulent year for Espoo-based phone giant Nokia, as its CEO

Stephen Elop admitted that Nokia was in trouble, not having products close to offering a user experience that rivalled Google's Android or Apple's iOS. This prompted the company to abandon the Symbian OS "burning platform" as well as ill-fated MeeGo OS it developed together with Intel, in favour of Microsoft's new Windows

Phone OS. The move looks set to benefit both companies – with Nokia receiving a much needed OS restructuring, and Microsoft a willing

handset partner ready to build on Windows
Phone which, up until this time, had limited support
from other handset manufacturers.





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Unlike plumbing, electrical and even general maintenance services, very few, if any, professional installation service providers are available for audio and visual equipment. Until now.



ligh quality audio and visual equipment require a bit more care and attention than regular consumer electronics. None more so than with the installation of this specialist equipment. Although there are companies available that do installations, many function outside the Consumer Protection Act, often delivering a second-rate service without any real after-sales service and accountability.

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WIN with HP and TechSmart!

We're giving away the Mini 210-3001ei netbook - ultra portable, ultra nice!

P's Mini 210-3001ei is a striking and colourful netbook, which weighs a portable 1.39 kg, aimed at those who enjoy an on-the-go lifestyle. At about 1.4 kg it does not require heavy lifting, with this little number easily able to slip into a backpack or handbag.

With a battery life up to 10.5 hours you won't have to constantly rely on a mains connection to browse the internet, access Facebook, watch movies or listen to music with the integrated Beats Audio technology for better sound quality.

What a gorgeous BrightView

HP's updated Mini 210 sports a 10.1" BrightView LED display, which is enough to easily watch movies, type notes or browse the internet. The netbook is further accompanied by a nearly fullsize keyboard, while its redesigned trackpad offers gesture support. Doing the hard work on the inside is Intel Atom N570 processor operating at 1.66 GHz, while 2 GB of DDR3 memory and a capacious 320 GB hard drive will easily cater to general tasks.

Lots of ports

Despite its small size, it still offers a generous three USB 2.0 ports, for accommodating an external mouse, portable hard drive and flashdisk simultaneously, for example, while an onboard webcam with an integrated digital microphone makes Skype sessions easy. It comes with Windows 7 Starter edition.

Quick Specs:

Processor: Intel Atom N570, 1.66 GHz

Chipset: Intel NM10 Memory: 2 GB DDR3

Storage: 320 GB SATA (5400 rpm) Graphics: Intel HD (up to 256 MB)

Display: 10,1" WSVGA LED HP BrightView Infinity Display, 1024 x 600 resolution Ports: 1 VGA, 1 headphone-out/microphone-

in combo, 3 USB 2.0, 1 RJ45

Wireless: 802.11 b/g/n; Bluetooth wireless

networkina

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Light and sound combined

Audiomotion L-2015 lightbulb speakers



speakers standing in the corner? Audiomotion's clever wireless speaker system enables just that, boasting two 5 watt long-life LED lightbulbs with built-in speakers, which can be installed into virtually any E27 light socket.

Doth screw-in and bayonet sockets are catered for, and once connected you simply plug your iPhone or iPod into the system's wireless docking transmitter, which transmits the sound to the speakers over a 2.4 GHz Wi-Fi connection. You can also employ an alternate music source, such as an MP3 player or other phone, via a 3.5 mm auxiliary port and appropriate cable which is included in the retail box.

In terms of performance the sound quality was surprising, with little to no distortion at the highest volumes. As the acoustic output of the speakers is 90 dB, these possess enough oomph to blast music throughout almost any sized room. Besides the sound, these two speakers will also provide LED-based lighting that is noticeably brighter than normal incandescent bulbs (and dimmable via the included remote).

Audiomotion's wireless lightbulb speakers retails for R3500 from Tierone Electronics on 012-667-4692. Check the video here: bit.ly/lightspeaker *

l'ma firestarter

Looftlighter

There are few things quite as enjoyable as standing around the braai. But surely there must be an easier way to light it up than smelly firelighters and lighter fluid?

Inter the Looftlighter, which according to the manufacturer, can start your braai in just one minute by employing nothing more than hot air. Simply plug in the power cord, point it at the base of the wood/charcoal pile, push the button and hold. The Looftlighter works like a hair-dryer on horsesteroids, getting the braai-party started via super-heated (600°C) air. Whether you prefer charcoal or wood, it makes no difference to this Swedish invention – it will light them all. There's even an integrated bottle opener included. Best is, there's no more borrowing of the wife's hair-dryer and then having to explain why it smells like a smoke stack. You can get it for R549 from The G.A.D.G.E.T. Shop on 012-346-2726.

100% smartphone juice

A common issue plaguing smartphones is battery life, as it has become standard practice to have to recharge these every night.

One solution looking to add some mileage to the lifetime of your smartphone's battery, is Energizer's AP750A micro USB portable charger. This ultra-portable (58 x 25 x 24 mm, 14 g) gadget will add extra standby time to devices sporting a micro USB port, which can be found on most, unless you are an iPhone user. Its compact size means it's easy enough to pop this back-up battery into your

car's cubbyhole, notebook case or handbag, or to carry it along with your house-keys since a keyring attachment is provided.

Energizer claims that the device's Lithium Polymer battery delivers up to 90 minutes extra talk time and we tend to agree seeing that the AP750A charged our BlackBerry Torch 9810 smartphone from virtually flat to over 40% power within 45 minutes. The Energizer can be recharged with the same power cable as your smartphone. It comes with an RRP of R239.



competition winners

3x Battlefield 3 PC, Dec 2011

James Clover Danie Chalmers Willie Scholtz



8x Jabra Active headsets, Dec 2011

Rachit Dedhia Hugo Smith Marnus Pietersen Jaco van Jaarsveld Christo Keyser Adheesh Ramnath MJ van Wyk Stephen Gray



3x WRC 2 packages, Nov 2011

Tshiamo Mogale Oscar Faulmann Jabumish



3x FIFA 12 PS3, Nov 2011

Justin Simmons Joachim Schulz Morne Lombard



3 x Norton Mobile Security, Oct 2011

Vishal Hurrichund Clement Dankuru Trust Mthimkhulu



5x Trend Micro Internet Security 2012, Oct 2011

Oboletse Moatshe Solofelang Machaba Pragesan Naidoo Tony De Bellis Nhlanhla Jeremia



HP: How green IT can reduce costs, increase productivity

Environmentally sustainable IT across the enterprise is possible.

All businesses must be prepared to address the challenges and opportunities associated with energy use, and IT is the catalyst that can help reduce their impact and costs in the short-term and transform their business for the low-carbon economy.



nergy has emerged as arguably one of the world's most urgent and far-reaching issues. It holds the key to not only the long-term health of the global economy,

but also the global environment. While there are a number of considerations when discussing these macro-economic and environmental issues, such as climate change or depletion of resources, in many ways they're all rooted in energy. This growing demand for energy will strain supply, driving prices higher and challenging availability in many regions, particularly rapidly growing urban areas. It will also increase levels and pace of Greenhouse Gas (GHG) emissions.

In all industries, enterprises are adopting environmentally focused IT solutions to reduce costs and create efficiencies. Many are turning to HP, long a leader in products and services designed with the environment in mind. Below are HP solutions that can improve energy efficiency, cut greenhouse gas emissions and conserve resources - all while improving performance and saving money.

Turn on power management

All HP PCs and monitors ship with energy-saving settings enabled. Using power management can save up to \$75 (about R600) per desktop

computer and monitor each year.

Convert to energy-efficient

HP was the first leading PC maker to offer desktops with 80% efficient power supplies, required under stringent ENERGY STAR 4.0 guidelines. HP lab tests found that PCs equipped with these power supplies and other ENERGY STAR 4.0 hardware requirements can reduce total system power use by more than half.

Lighten up Notebook PCs and flat-panel displays use fewer raw materials in manufacturing and less packaging to ship. Flat-panel HP TouchSmart IQ 500 series PCs. which feature an integrated PC and monitor, use 55% less metal and 37% less plastic than standard PCs and monitors.

Print immediately out of powersave mode

HP estimates that for monochrome LaserJet products, the energy saved by using Instant-on technology between 1993 and 2007 avoided nearly 6.5 million tonnes of CO2 emissions, the equivalent of removing 1.4 million cars from the road for a year.

Take control of your printing and imaging By centrally managing your printing fleet with HP Web Jetadmin software, vou can set device sleep and wake modes. And to save even more money, turning off imaging and printing devices outside of business hours can help lower energy costs associated with office equipment by up to 66%.

Recycle IT equipment and print supplies

The plastics and metals in IT equipment can be used in new products, lowering demand for raw materials and diverting waste from landfills. To date, HP has recovered 157 500 tonnes of print cartridges through its Planet Partners return and recycling program. Visit bit.ly/hpplanetpartners for more information.

Meet virtually instead of

Using HP Halo to eliminate 1000 commercial flights between New York and London for one person can prevent more than 1200 tonnes of

> CO² emissions – and save \$2 million (about R16 million) in airfare. HP SkyRoom will bring high definition collaboration to

the desktop, making virtual meetings even more accessible to a larger number of people.

Curb power-hungry data centers with HP EcoPOD

A typical 2000-square-meter data center consumes as much power annually as a 40 000square-meter office building. Key

benefits of the EcoPOD include: The EcoPOD with its enhanced cooling capabilities is HP's first air-cooled modular data center that automatically adjusts to the most efficient cooling method. The EcoPOD is the latest in a line of HP Pod Solutions that can be customised to meet the specific capacity, climate. and site requirements of organisations around the world.

Compared to traditional brick and mortar data

centers, the EcoPOD helps reduce energy usage by up to 95 percent. In addition, the power usage effectiveness (PUE) rating, which can go as low as 1.05 to 1.3, compares well

against the 2.4 rating of a typical brick and mortar facility.

Conclusion

With HP solutions.

everyone from consumers to enterprise customers to entire industries are becoming more energyand resource-efficient. They're making smarter decisions - for the environment as well as their lives and businesses. They're replacing carbonheavy processes with lighter, more sustainable alternatives. And they're coming up with new ways of doing, living, working and connecting while sparking innovation and sustainable growth today and for the long term. &



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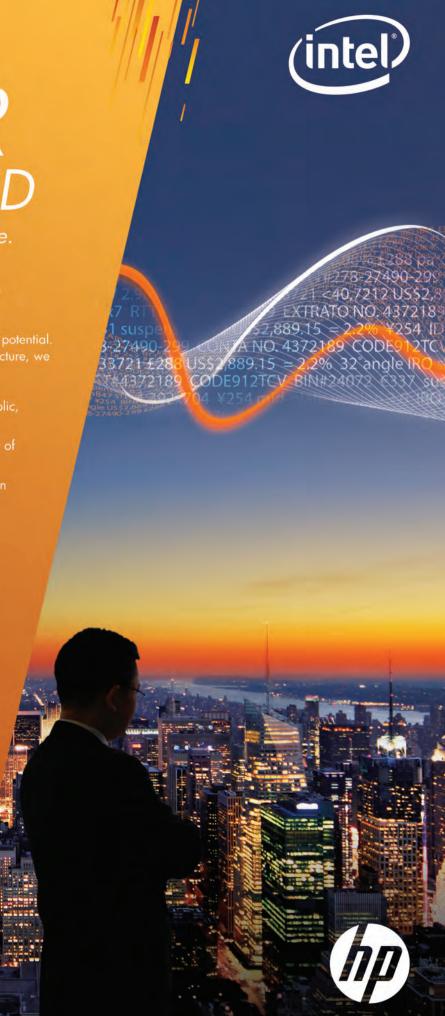
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What does it mean to go green?

In recent years the global information technology (IT) industry has stepped up its efforts to make its products and practices more eco-friendly. Many companies talk about their "green IT" efforts, but what exactly do they mean?





About the Author

Todd Thibodeaux is the president and chief executive officer of the Computing Technology Industry Association (CompTIA), the leading trade association representing the business interests of the global information technology (IT) industry.



Green IT remains a fuzzy concept for many, with uses of the term and its interpretation varying wildly. The definition from the article Harnessing Green IT: Principles and Practices by Sam Murugesan, published by the IEEE Computer Society, provides a solid foundation for framing the somewhat murky concept of green IT:

"The study and practice of designing, manufacturing, using, and disposing of computers, servers, and associated systems – such as monitors, printers, storage devices, and networking and communications systems – efficiently and effectively with minimal or no impact on the environment."

A 2011 CompTIA research study of the green IT market revealed a wide range of views on what green means, but reduced energy consumption and e-waste recycling are the practices most strongly associated with green IT initiatives.

Green IT becoming a priority for more organisations

Among organisational priorities, green IT initiatives tend to rank in the middle, though the CompTIA survey suggests this is changing. In 2009, only 9% of firms rated green IT as an upper half priority. The figure jumped to 37% in 2011 and is expected to rise to 54% by 2013. Also, one in five organisations had a dedicated budget allocated to green IT initiatives, but another 44% indicated that they are moving in that direction.

Presently, green IT initiatives and expenditures tend to occur at mediums-sized organisations (100-499 employees) and larger firms (500-plus employees). Businesses of this size consume more resources and energy and therefore are more apt to pursue strategies that yield real costs savings or efficiencies. Given the intense cost-cutting focus during the tough economic times of the past few years as well as periods of high energy costs, it's likely many of these firms eyed green strategies as a means to help the bottom line. This is not to suggest that small firms cannot benefit from green IT practices, but the bottom line impact is proportionally smaller.

Evaluating IT companies based on green

When evaluating whether to do business with an IT company, firms traditionally consider a number of factors like quality, price and flexibility. While these factors continue to be most important, companies are increasingly weighing in on green IT practices as well.

In the CompTIA survey, 76% of respondent companies indicate that they have hired or partnered with IT companies in the past two years, ranging from hardware vendors, software vendors, value-added resellers, solution providers, carriers and distributors. When considering whether to hire these companies, the majority of companies indicate that how green these IT companies are and how knowledgeable they are on implementing green initiatives are important factors. For instance, being green may entail efforts to reduce energy consumption, manufacturing, purchasing and using green IT products, or have an eWaste system.

When looking at what factors are most important in evaluating IT companies to hire, 74% say that the ability to help implement IT initiatives that conserve energy is a top factor. Nearly half (44%) indicate that it is important that IT companies purchase and use green IT products; have an eWaste program (42%); and use green manufacturing processes (40%).

Green Skills for the IT Workforce

Green IT is at the heart of virtually every aspect of sustainability, from the power grid, smart buildings and environmental control systems to telepresence, telecommuting and virtualisation. But to fulfill the promise of green IT, technology professionals must add new skills unique to its environment.

25%. Over 200 million of Facebook's 800+ million users were added during 2011

The CompTIA Green IT Certification is one way in which IT workers can enhance their green skills. The certification ensures knowledge and skills necessary to implement environmentally sound techniques within an organisation's IT infrastructure. The certification enhances existing IT credentials to incorporate emerging technologies that shape the global green IT industry.

CompTIA

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Maximising the use of solar power

Netshield Solar Tracker

While Eskom warns of possible load shedding and with winter still ahead of us (when electricity usage typically reaches its highest point), using solar powered solutions is as relevant as

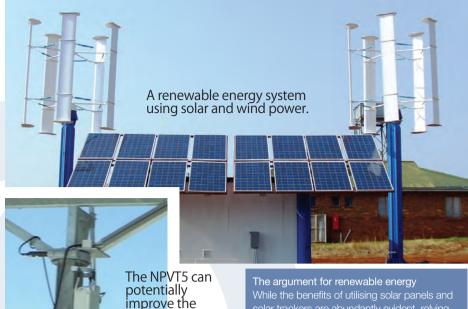
owever, while the country receives more than 2 500 hours of sunshine a year and its solar radiation output is more than twice that of Europe, just relying on the benefits of solar power is not always enough. It is also important to maximise the energy received from the sun as its position, relative to one's solar power set up, changes.

Solar trackers explained

To this end, solar trackers, such as Netshield's NPVT5, can help enormously, by minimising the angle of incidence between the incoming light from the sun and a photovoltaic panel, thus increasing the amount of energy produced.

Dual axis trackers on the NPVT5 allow for optimum solar energy levels due to their ability to follow the sun vertically and horizontally. No matter where the sun is in the sky, these are able to angle themselves to be in direct contact with the sun. This is important because significant power is also available in the early mornings and late afternoons. When the sun is only 10° above the horizon, the available energy can already be around half the noon-time energy levels.

In a nutshell, the primary benefit that can be gleaned from using a tracking system is that solar energy can be collected during the longest period of the day, and with the most accurate alignment, as the sun's position shifts with the seasons.



Solar Tracker highlights

To this end, the Netshield NPVT5's dual-axis solar tracker has been designed to maximise solar tracking performance, while offering a significant increase in energy production and reduction in costs. The NPVT5 affords accuracy and high performance, in a design which can be easily installed and potentially improve the production of a photovoltaic system by up to 45%. Additionally, the tracker can be remotely monitored, positioned and controlled, through Netshield's remote Site Monitoring service, while the requisite motors run infrequently and well below load limits. Moreover, the company's tracker is programmed to stow at a wind speed of 13 m/s, and is capable of surviving gust loads of 150 km/h, which makes it suitable for even the most wind-prone areas.

production of a photovoltaic system by up to

Netshield's solar tracker is also compatible with recommended MPPT's and inverters, which means users can take ample advantage of a variety of power source setups. It is particularly well suited to residential and small to medium commercial solar power plants. However, Netshield can also provide trackers for solar power plants ranging in size from 5 kW (Kilowatts) to MW (Megawatts).

While the benefits of utilising solar panels and solar trackers are abundantly evident, relying on renewable energy is all too quickly becoming imperative and essential. While society, and thus people, have become increasingly dependent on fossil fuels such as oil, coal and natural gas as sources of power, these fossil fuels are clearly finite and no longer offer a long term solution to growing power needs.

Along with the fact that they have been created by natural processes and have taken millions of years to form, burning fossil fuels to produce energy results in 'greenhouse gases' such as carbon dioxide. This traps solar radiation in the earth's atmosphere and is already being considered responsible for causing undesirable changes in the earth's climate, from which no country is immune.

Netshield's advantage

Netshield is a company that is dedicated to providing design, supply and installation of renewable energy solutions for customers needing to generate electricity from renewable resources, such as wind and solar power.

Additionally, Netshield offers a holistic view around energy use and generation by reducing the total amount of energy being consumed, while building lasting, durable systems and customer relationships in its bid to help create a better future, for current as well as future generations.

For more information on the NPVT5 solar tracker, contact Netshield on 086-111-4428, marketing@netshieldsa.com or visit www.netshieldsa.com.



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Issue 101 | February 2012

2012:

A mustwatch movie list



This year promises to be a good one if you're thinking of spending lots of time in front of the big screen, especially if you are, like us, a bit of a comic book geek. Here are five of 2012's must-see movies.

The Dark Knight Rises

The work director Christopher Nolan (*Inception*, *Memento*) has done with the Batman franchise should be considered critical viewing for all directors who are thinking about tackling a comic book franchise. In short, it is the gold standard against which all others must be measured. *The Dark Knight Rises* marks the end of his trilogy, and sees Batman (Christian Bale) up against the colossal Bane (Tom Hardy, *Inception*), which in the comics managed to brake Batman's back. There's also been much talk about the delightful Anne Hathaway purring her way on screen as the all-too-sexy Catwoman. What's not to look forward to?

Trailer: bit.ly/darkknightt

The Amazing Spider-Man

Reported spats between both director of the previous *Spider-Man* movies, Sam Riami, and Spider-Man himself, Toby Maguire, with Sony Pictures about the direction of the series, scrapped all plans for a *Spider-Man 4* sequel. Instead we'll now see a complete reboot in The Amazing Spider-Man.

We can't say that we're overly excited to see Peter Parker (played by relative unknown Andrew Garfield, Mark Zuckerberg's partner in *The Social Network*) back at school going from hero to zero again, but the movie also promises to focus on the unknown story behind the disappearance of Parker's mom and dad. Also watch out for Rhys Ifans (best known as the dotty Spike in *Notting Hill*) taking on the role of villain The Lizard.

Trailer: bit.ly/amazingg

The Hobbit: An unexpected journey

Ah, the return of the familiar. Director Peter Jackson revisits Middle-Earth, this time with the story of Hobbit Bilbo Baggins' epic quest to slay a dragon. Events take place before those of *The Lord of the Rings*, and sees our hesitant hero Bilbo (played by one of our favourite British actors Martin Freeman from *The Office*) join at least eight familiar faces, including lan McKellen (Gandalf) and Orlando Bloom (Legolas). Although part one can't come soon enough, we can't help but wonder what magic Spanish director Guillermo del Toro (*Pan's Labyrinth*), who was appointed as director but left due to delays, could have done with Tolkien's realm.

Trailer: bit.ly/hobbitss

Prometheus

One of our most anticipated releases since we heard it was in development, Prometheus will finally hit our screens this year. While the movie is not connected to the Alien series, despite originally being developed as a prequel, director Ridley Scott (*Blade Runner*, *Alien*) has hinted that it shares Aliens' DNA, meaning we expect it to be as scary, if not more so, and immaculately filmed.

Prometheus's story is alluring enough – it is based on a crew that goes in search of mankind's origins, but finds something far more menacing. The movie stars Noomi Rapace (*The Girl with the Dragon Tattoo*), picking up the Ellen Ripley warrior mantle, Michael Fassbender (who did an excellent job as a younger Magneto in *X-Men: First Class*) and local favourite Charlize Theron. The trailer for the movie looks highly promising, and this is one movie that cannot come quickly enough.

Trailer: bit.ly/promett

The Avengers

Another immensely promising movie, *The Avengers*, is set to unite several superheroes, including Thor (Chris Hemsworth), Iron Man (Robert Downey Jnr), Hulk (Mark Ruffalo) and Captain America (Chris Pines) – under the S.H.I.E.L.D mantle, headed by Nick Fury (Samuel L. Jackson).

Rounding off an already star studded cast is Scarlett Johansson, playing Black Widow, and Tom Hiddleston, who managed to steal almost every scene in *Thor* as Loki, and you have more than enough reason to believe Downey Jnr's brash assertion that this would be the best superhero movie, ever. Best of all though, *The Avengers* is helmed by Joss Whedon (*Angel*, *Firefly*), fine directing and at least some sexual innuendo is practically a given. [MJ + RN]

Trailer: bit.ly/avengerss



















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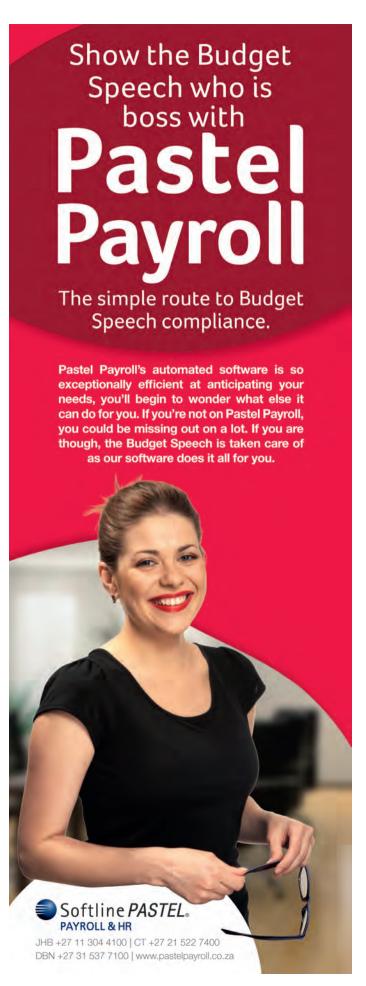
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Number 1. Chrome 15 has overtaken Internet Explorer 8 to become the world's most employed web browser according to analytics firm StatCounte

E-waste management in Africa

HP's action plan sets a new course

The rapid economic growth of emerging markets has led to a rise in the generation of electronic waste (e-waste) in the last decade. The European Environment Agency and United Nations Environment Programme estimate that 40-50 million tonnes of electrical equipment waste are produced each year globally.



In the case of Africa, collection and treatment of waste, and e-waste in particular, is typically handled by workers in the informal sector. HP studies have found that over 95% of e-waste treatment is handled through these informal networks.

The lack of a sustainable e-waste management infrastructure in most African countries means that unsafe dismantling and recycling of used equipment pose serious threats to workers' health and the environment. This is compounded by situations where there is often little e-waste policy or legislation, regulations to protect the health of e-waste workers are often limited, and where there is little or no infrastructure or training to support sustainable waste management systems.

Problems addressed

As part of its commitment to Extended Producer Responsibility, in 2007 HP began developing a programmatic strategy and action plan to address the e-waste problem in Africa. The 'e-waste in Africa' programme builds on HP's extensive experience implementing equipment take-back and recycling systems around the globe. Broadly, HP's involvement in the 'e-waste in Africa' programme is structured around three main lines of activity:

- Conducting research and feasibility studies to assess current e-waste practices and policies in African countries, and lay the foundation for planning
- Facilitating education and training for informal



- sector workers and others in the African waste management supply chain, including advising private sector recyclers and governmental organisations on environmental and health standards
- Providing technical and financial support on a variety of waste treatment and recycling projects on an ongoing basis. HP is also active in deploying IT equipment take-back programmes in Africa through its Recycling Services for Commercial Customers organisation, HP Planet Partners and associated HP end-of-life programmes.

Thinking local

HP continues to build its expertise on e-waste management through country assessments, participation in regional e-waste conferences, and development of collaborations with NGOs, governments, and local stakeholders to assist in local projects.

The company believes that a fresh approach is needed for e-waste management in Africa. It needs to facilitate collection by informal recycling networks as the main actors of change, providing them the tools to develop e-waste management systems that are locally-adapted and self-sustaining in the long term.

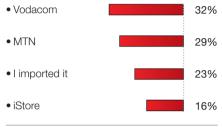
For more information on HP's Planet Partners project, please visit bit.ly/hpplanetpartners.

Top 3 news stories on TechSmart.co.za for Jan 2012

- iPad 3 slated for March release bit.ly/ipadmarch
- 2. Gaming News Round-up Fast cars and bullets edition bit.ly/gnrfastcars
- 3. Google launches Woza Online for local SMEs bit.ly/wozagoog

TechSmart.co.za online poll results

Where did you get your iPhone 4S?





Most read TechSmart reviews in Jan

- Samsung Galaxy Tab 10.1 P7500 tablet bit.ly/p491do
- 2. Sony Ericsson Xperia arc bit.ly/arcsonyeric
- Huawei IDEOS S7 Slim bit.ly/tTZwfg
- 4. Samsung Galaxy S II bit.ly/samsgals2
- 5. BlackBerry Bold 9780 bit.ly/usm4W1

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Android Apps of the month

With over 100 000 apps available for Android smartphones at the Android Market, TechSmart would like to help you get to the good ones first. Here are our top Android Apps of the month.



Apple iOS Apps of the month

You'll never come close to going through all the apps in Apple's App Store. Let us suggest the best.













Adobe Collage

urrently only on ✓ the Android platform, Adobe Collage is a superlative app for creative types and well worth the R78 price tag. The app enables one to create, as the name suggests, collages that combine backgrounds, images, text, drawing effects to create an array of moodboards. Photos can be resized and rotated with multitouch, while multiple layers are also supported. Although the app only offers four pen types and an eraser, it does support importing Photoshop's PSD and Illustrator's Al files, as well as files in PDF format, which greatly extends its versatility.

Galaxy

e love apps that challenge us to think on our feet, and Galaxy is a puzzle game that certainly fulfils that expectation. Its premise is simple you need to connect stars in a galaxy together to form a constellation. However, you cannot go backwards and in certain cases, you can only go in one direction. Also available is the time challenge mode, in which you need to complete as many puzzles as you can in a given time, and arcade mode, which enables you to play at a difficulty level of vour choice. Galaxv boasts 200 levels, is free and compatible with devices running Android 1.5 and up.

Dropsync

ropsync is in our view one of those essential apps that Android users need to add to their toolbox if they ever use Dropbox. The app, which is a twoway synch client for the cloud storage service, enables users to keep their files, with the latest changes, on their phone or tablet synchronised with Dropbox on their PC seamlessly. Additionally, Dropsync enables one to set how often files will be automatically synchronised during a day. While the standard version is free, the Pro version (at R15) offers the ability to synchronise multiple folders and no ads. &

SkyView Free

ver find yourself staring at the stars, wishing there was someone to help identify the constellations? SkyView Free is an augmented reality (AR) app that functions as the perfect stargazing companion. What makes SkyView different from other skywatching apps, is its AR functionality. This makes it a lot easier to find what you are looking for, since its 3D interface matches up to what you see on your screen via your device's camera. Tap on objects to read more and even follow the paths of both the sun and moon around the

Color Effects

he latest version (5) of Apple's iOS mobile operating system might enable you to crop, rotate and enhance photos, but as can be expected a number of enhancements are still missing. Color Effects is the app to get if you want to add a bit of selective colouring (making one object stand out from a monochrome background) to your pics. And you don't need a course in Photoshop to do so only a few swipes of your finger. Users are able to import photos from the photo library or directly from Facebook, but we should say that sometimes we wished we had a stylus.

Spider Monkey

opider Monkeys are commonly referred to as the trapeze artists of the jungle, swinging gracefully from branch to branch. On vour iPhone/ iPad it might be a more clumsy affair, as you try to get this rubbery armed primate from tree to tree and into his hut. In the process you need to also collect bananas (of course) and stars, all while trying your best to contend with bees. and the ground. The game features four differently themed worlds ranging from the Jungle through to the City, offering a whopping 32 stages to emulate Tarzan's daring swinging feats through. &

Android tip of the month

If you want quick access to recently used applications, simply press and hold your Android phone's home button. The resulting screen will show at least six active applications, so just click on the one you need. This can save you the hassle of going through the regular apps menu to find what you are looking for.



http://fiberflux.blogspot.com/2012/01/android-anyone.html

iPhone tip: Zoom feature

globe.

Having trouble making letters out on-screen? Simply activate the zoom functionality of your iPhone by going to "Settings" > "General" > "Accessibility" > "Zoom", to magnify whatever being displayed on the screen. To zoom you just need to double tap with three fingers and then drag three fingers across the display to move around the screen.



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Looftlighter

The original Looftlighter is a Swedish patented invention that lights your braai or fireplace with super-heated air within 60 seconds. It can also "fast-forward" your charcoal or briquettes and make it possible to start cooking in just a couple of minutes

The Boogie Board Rip™

The Boogie Board Rip™ LCD Writing Tablet combines an exceptional, paper-like writing experience with the ability to record your written and drawn images and save them as files. Then connect to a computer and transfer files for editing, organising, archiving and/or sharing!



Jabra Street

its new STREET2, a dog tag pendant with Bluetooth 3.0 designed to



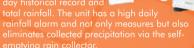
Veho 400 x USB Microscope

(interpolated) and alloy flexi-stand and measurement software. This handy USB desktop microscope (400x, 2 Megapixels magnification) has a multitude of home and office uses.

Bamboo 3rd Generation Tablets

expressive and easy way to work with your PC or Mac. Edit, write,

Digital Rain Gauge



Click Car Stick

tons of horsepower! This die-cast mini USB flash and tail lights or coasting wheels, is as a perfect car as a USB flash drive!



Gecko Keyboard Folio

Featuring innovative design, a removable bluetooth keyboard most from your iPad 2 in the office or at home

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Acer Aspire 5733

Core i3-370, 500GB HDD. 15.6" LED Display. Wireless LAN, Windows 7 Home Basic 64bit.

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Acer TM5760G

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Web Time Wasters Specially selected sites to spend some quality time with.



Howcast www.howcast.com

> lowcast could be considered the YouTube of DIY, as the

site focuses on 'how to' accomplish a broad spectrum of tasks across a staggering array of categories. These include arts and media, business and finance, crafts and hobbies, first aid, house and garden, personal care and style, personal fitness and technology, to name but a few. The site offers a wealth of knowledge, but a good broadband speed is recommended.



Mobilitate

www.mobilitate.co.za

It's one thing to complain about municipal problems here

in SA, it's another thing to do something about it. Mobilitate is a platform where citizens from across the country can report a municipal problem by pin-pointing the exact location of the problem via Google Maps. In turn, Mobilitate sends the issue to the relevant municipality and at the same time notifies the ward councillor. With 2025 issues resolved already, why not join their community today?



Big Think www.bigthink.com

Me love thinking about and pondering ideas and

concepts. For those who similarly crave mental stimulation, BigThink is a superb site to engage one's grey matter. The site hosts experts from a variety of fields and professions, such as a cognitive neuroscientist, an English professor, authors, artists, comedians, futurists, a Nobel Prize winning psychologist and a senior bioethicist from NASA. It makes for some excellent reading material.

The best

(and weirdest) YouTube can offer:



Stuff nobody says:

Best of the rest:





GIFs: bit.ly/kubrickgifs

during January.

TechSmart's

favourite tweets

Here are the tweets that struck our fancy

mikesnarman Miles Shamman People who don't understand 'reply to all' etiquette should be banned from the innernet.

degrumpysmurf Greg de Charthaumeuf You know you have strange taste in music when iTunes classifies most of your music as "General Unclassifiable"

Whathappenswhenyouhavetoomuchcoffeetokickstartamondaymorning

The absence of a tool to auto-transcribe an interview is one of the great disappointments of technology in the 21st Century.

Alan Knott-Craig appointed as CEO of Cell C17 is it April 1 already?

GreatScottinc Could South
Sometimes I sit on twitter putting all this energy into reading tweets

WhisperdScream (here: Sous It's actually pretty cool that my 82 year old grandfather decided to get onto Facebook. Just sucks for him when he's looking for friends.

when i can put the same energy into reading a book.



Twitter's top tweeters

So who has the most followers on Twitter? It comes as no surprise that the top positions are occupied by pop stars.



1. Lady Gaga –18,446,793



Lady Gaga o @ladygaga New York, NY

O Follow (m) Text follow ladypage to 40404 in the United State Can't believe I have 18,000,000 TwitterMonsters, really rad, vas just a few years ago I had barely any. ladygaga Lan Eage I know I'm a little late but Born This Way one Favorite Album of the Year at the People's Choice Awards! So amazing thank you

ladygaga Lady Gagai NOTE TO BLEACHED BLONDES WHO ARE TONING: do not

fear the sting of toner! Wait five minutes and it's just so painful

2. Justin Bieber - 16,749,552



Justin Bieber

@justinblober The World
new album UNDER THE MISTLETOE out NOW!! I GOT
SO MUCH LOVE FOR THE FANS...you are always there
for me and I will always be there for you. MUCH LOVE.

5 Text tollow justinbleber to 40404 in the United States

3. Katy Perry – 14,284,892



Katy Perry @katyperry Underneath a palm tree. d a airl AND diddled her skittle

□ Follow

4. Shakira -13,097,750



Shakira o @shakira Barranguita Welcome to Shakira's Official Twitter page. Bienvenidos a la página oficial de Shakira en Twitter ww.shakira.com

Text follow katyperry to 40404 in the Ur

5. Kim Kardashian – 12,765,865



Does anyone else find Twitter's "similar to you" suggestions ometimes vaguely insulting?

Listening to a track by Knife Party, vocals > "you blocked me on

senorblinky Alex de Coning Just realised that Twillight could've been much worse, I mean Nickleback could've done the soundtrack

Any snow forecasted for hell?

124 billion. Amount of spam sent daily between August 2010 and November 2011, down from 379 billion messages daily



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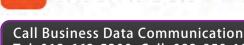
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Get ready to rumble...

Top 5 Games for the first half of 2012



This year is already promising to be a bumper year for games. In fact, trying to narrow down our top 5 games for the first half of the year was particularly challenging, with so many standout titles from which to choose. Get ready to clear your calendar ...

5. Max Payne 3

Poor old Max. He thought he might catch a bit of sunshine in Sao Paulo after what happened in New York in MP2, but unfortunately the girls and their troubles seem to follow him around. Doing duty as a "security consultant", this time around hard-drinking Max looks even gloomier than before, now also sporting a shaved-off head.

So why does MP3 make it to our Top 5 list? Simple – developers Rockstar Games have matured into one of the most bankable companies around, being responsible recently for L.A. Noire, GTA IV and Red Dead Redemption. We enjoyed the Matrix-style bullet-time of the previous version, so we're glad to see it back again, this time supported by the excellent Euphoria physics engine for some decent FPS thrills.

Due date: May 2012 | Trailer: bit.ly/maxisback3

4. Final Fantasy XIII-2

We hope and pray that the Final Fantasy franchise gets it right with XIII-2, since XIII was disappointing. Players complained about the title being too slow, too linear and even too boring, as well as more aimed at its Japanese core-audience than western gamers looking for a bit more excitement.

It's for this reason we believe that developers Square Enix released a playable demo of XIII-2 beforehand, making sure that players aren't afraid to buy the new title. Producer Yoshinori Kitase also claimed he wanted to "rectify every negative view" with this sequel, so we suspect we might be in for a decent JRPG. The title sold half a million copies in its first week in Japan, where it was released in December.

Due date: February 2012 | Trailer: bit.ly/finfant

3. Kingdoms of Amalur: Reckoning

The word "epic" gets thrown around a lot in talk about Kingdoms of Amalur. Reckoning. Although it's advisable to take this with a pinch of salt, we're starting to believe that it might not be that far off, especially with Spawn creator Todd McFarlane onboard as art director. The massive open-world RPG is developers' 38 Studios' debut effort, but already they're promising "the best combat that you've ever seen".

The RPG market is pretty hot right now and Reckoning faces some stiff competition (think Skyrim, Witcher 2), nonetheless Reckoning might just be one of the top new original titles of the year (and watch out for an Amalur MMO game to follow).

Due date: As soon as February | Trailer: bit.ly/amalura

2. Mass Effect 3

It's going to be a joyous but sad day when we finally get to say goodbye to Commander Shepard in the final instalment of the Mass Effect trilogy. Known for its massive world and excellent storytelling, the Mass Effect franchise has been one of the most successful of the past few years.

After defeating the Collectors in ME2, Shepard is once again at it, trying to unite species against the Reapers who have now invaded earth. ME3 allows you to include saved files from the previous titles, influencing not only gameplay, but also how the story (and ending) unfolds. One of the features we can't wait to test out is the four-player co-op multiplayer missions, while Bioware (Dragon Age II, Star Wars: The Old Republic) is also working on "deepening" Shepard's character, adding to the emotional appeal of the story.

Due date: March 2012 | Trailer: bit.ly/masseff3

1. Diablo 3

Words cannot express quite how much we are looking forward to the next installment in the Diablo RPG series. As we've come to expect from developers Blizzard (WoW, Starcraft II), they've certainly taken their time to get this finished, with Diablo 2 already marking its 13th anniversary.

From what we've gathered from the gameplay videos Blizzard has posted, Diablo 3 will look, and play, amazingly well, adding a new hotbar to help you use your skills more easily and upping the animation to a whole new level. There is even talk of a new Auction House, where you can sell some of your hard-to-acquire artifacts for either in-game gold or real money. [MJ]

Due date: Mid-April, but with Blizzard at the helm don't set aside that Easter holiday just yet. | Game demo: bit.ly/dia3blo















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