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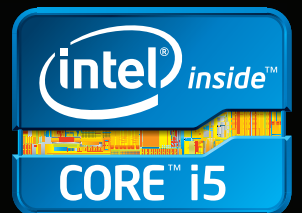
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The choices you make

A couple of months ago I wrote a sarcastic / satirical piece about SOPA (Stop Online Piracy Act). As expected, I got a couple of hate mails from people who didn't read the whole column, and actually believed I was campaigning for such idiocy. Oh well!

However, I also got mail from people who not only understood the sarcasm, but also agreed with my views. People are just not comfortable with being told what to do online, or what they can or can't view. We like our little freedoms – the freedom to express our views and the freedom to look at every other point of view.

However, we're also extremely testy and sensitive about certain things – religion is a prime example. Terrorism is also something we abhor enough to sacrifice a few non-essential liberties without making too much of a fuss. Every traveller to the US from this country is now completely used to being treated as if guilty until proven innocent at airports. We shrug our shoulders and quietly try to put on our socks and shoes in a corner. "It's just the way the world is now", someone once told me.

Right here at home, terrorism is as big a threat as anywhere else in the world, and especially in Mumbai, where I live. People seem almost indifferent to it now – "It happens. So many people. What can authorities really do?", another friend once said.

That said, we all oppose SOPA. We're all against invasions of our privacy. Those who own BlackBerrys nod their heads disapprovingly and make little clicking noises with their tongues at the news that RIM had to set up servers in Mumbai to allow the Indian Government to gain access to BBM (messenger) chats – because terrorists can, and have used BBM to co-ordinate attacks. Of course they could use email, Yahoo! Messenger, WhatsApp, GTalk, Facebook chat, and a myriad other ways to communicate as well. So are those being monitored already? Perhaps every email you send and receive is already being monitored. Maybe your Facebook activity is under the scanner – every wall post, every picture you put, what your friends talk about, which videos you watch, how badly you spell and who you think is "cute" even.

Why stop there? maybe absolutely everything you do on a device that's connected to some sort of network is being fed to computing farms to analyse the content and create a profile of you. I'll bet mine says, "wastes a little too much time watching stand-up comedians on

YouTube; extremely boring otherwise." Ever wondered what yours would say?


If you're thinking, "Nah, that's not possible. There's no way all of our data is being analysed.", you're wrong of course. It very much is, has been for a long time, and there's nothing you can do about it!

Whether the government is doing so or not, I really have no clue, and if they are, then it's just another set of algorithms being run on my data, or profile, or whatever they call it. However, I do know that pretty much everything you do online is recorded somewhere, in some form and analysed for various reasons. The biggest reason is money of course – you and your habits – buying, surfing, etc. – are all worth something to someone.

Yes, Google and Facebook, and every other site you visit are doing this analysis of you, and everything you do. They do it to try and decide what kind of ads you would be more likely to click on, and slot all of us into nice, neat little piles of humanity to be monetised when possible.

Nothing wrong with that, of course – if you like the service Google or Facebook provide, so what if they make money while providing you that service for free? You can go to <http://t.co/hSxzJaPf> to see what information the Google cookie stores about you. Of course, they have a separate data store somewhere about your Gmail account, your search habits, YouTube videos you like, and all the stuff you do when logged in, and even all the stuff your IP or browser does when not logged in. At Facebook, since you can't do anything without being signed into your account, the data is probably much more precise and "real". And yes, even those adult sites you didn't think anyone knows you visit – they know!

So why is it we like to moan about our Governments monitoring our mails or IMs for keywords, and start discussing our democratic rights, but the fact that the companies and corporations of the world have much more in-depth and intimate knowledge about you doesn't even elicit a whimper?

Perhaps it's because you have no individual-level control over who governs you as a citizen, but using a service that stores your data... well that's a choice you make. Write in and tell me what you think. 



Robert Sovereign-Smith
Executive Editor
editor@thinkdigit.com

"If you're thinking, "Nah, that's not possible. There's no way all of our data is being analysed.", you're wrong of course"

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- Logitech Harmony 900 + RF
- Huawei Ideos U8510 X3
- HP Officejet 6500A Plus
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- WD TV Live
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- Seagate GoFlex Satellite
- Canon SX150IS
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- Huntkey Cabinet H403
- Maxx projector phone
- Jabra Supreme Bluetooth headset
- Logitech G9X mouse
- Microsoft Sidewinder mouse
- Logitech G500 mouse

Laptop Comparison Test

- Acer Aspire 5830TG
- Acer Aspire 5755G
- Acer Aspire 5755
- MSI GE620
- MSI CR640
- Asus U32U
- Toshiba Satellite L750-X531B
- Toshiba Portege R830-I3310
- Toshiba Satellite L750-P5210
- Sony VAIO C
- HP Pavilion dv6-6121tx
- Lenovo Y570
- Dell XPS 14z
- Dell Inspiron 13z
- Apple MacBook Pro
- Acer Aspire S3
- Apple MacBook Air 11
- Asus Zenbook
- Lenovo IdeaPad U300s
- HP Folio 13

SSD Comparison Test

- Kingston HyperX 240 GB
- Corsair Force GT 240
- Corsair Force GT 120 GB
- Silicon Power SSD V30
- Intel Series 520 240 GB
- Kingmax SMP35 120 GB
- ADATA S510 120 GB
- Kingston SSDNow V+ 200 90 GB
- Strontium Python Series 240GB
- Kingston HyperX 120GB

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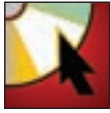
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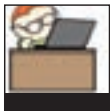
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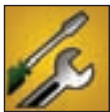
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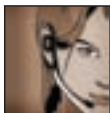
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why facebook might fail!



Despite the behemoth it is, there are a few chinks in the Facebook armour that you should be aware of...



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The logistics of space travel



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One of the best 55-inch smart TV on the market



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111 HUAWEI U8510 IDEOS X3

Entry level Android player offering cloud storage

Regional Blog Censor Controls

Google's brought country-specific censorship controls to Blogger, just weeks after Twitter made a similar move, extending their platforms' global reach <http://bit.ly/ywRdaE>

Facebook's New Photo Viewer

Facebook updated its photo viewer, making it similar to that on Google+, hoping to make it easier access comments <http://bit.ly/zIUK4t>

✉ What an awesomee magazine Digit is!! I love it. It's been six years since I started reading Digit. Your February issue was a good one. I loved the section that showed how people are nowadays talking on social networking sites. And the part where you showed the (d)evolution of English. You guys are doing very well and I hope you will reach far in "Navigating Technology".

Here are some points I'd like to put across:

1. Can you please provide a Fast Track to Augmented Reality and Blue Eye technology.
 2. Your DVD is good but it tends to freeze on my computer. Please look into this and improve it.
 3. Fast Tracks on more interesting topics like the ones I just mentioned
- To the editor, I'd like to say that your magazine is the best. Keep it up Team Digit and keep on "navigating" the minds of students like me.

Abhimanyu Singh

Hi Abhimanyu. It always gladdens our hearts to read messages from our fans, especially from such long-term readers as yourself. Regarding the issues with your DVD, try out the DVD on someone else's PC to make sure that it's working properly. If it is, you might want to run some diagnostics on your PC. On the other hand, if the DVDs do turn out to be defective, send in an email to help@thinkdigit.com and we will ensure you get a replacement.

Your ideas for the Fast Track are very interesting and we'll keep them in mind when deciding on topics for upcoming issues. Your faith in the magazine is not taken lightly believe me. We'll always strive to do our best to assist students like you in whatever way we can.

Robert

✉ Nor am I a Digit subscriber, neither am I a regular reader of the magazine. While passing by a book stall on the 8th of February, I noticed the February issue and stopped to have a look at the contents. To my surprise, I found one of the DVDs provided alongside the magazine contained "Web Dev Tools".

Feedback about the February 2012 issue of Digit



I instantly bought the magazine and ran home to check out the DVD, and found to my utter pleasure, not only 35 web development tools but also many more tutorials and resources on website building. At that very moment, I promised myself that I would start reading Digit on a regular basis.

Let me tell you the reason for my becoming overjoyed with the inclusion of "Web Dev Tools". I am planning to start a website on Photography after completing my graduation in mid-2012. I always search for tutorials and resources on the internet for building websites and in fact get tons of resources but find myself unable to decide which ones to follow. But I know, Digit is a trustworthy Tech magazine and won't lead me the wrong way. So, hoping your "Web Dev Tools" and resources will help me build my website with ease.

Bijit Sharma

Hi Bijit, Glad to hear that you liked the web-dev tools and the tutorials on the DVD. It's not something we do once in a blue moon. You should know that there are such tools along with every issue we

bring out. Check out <http://devworks.thinkdigit.com/> for more news and articles regarding the programming and development scene. We hope you'll find the Fast Tracks that we've included this month equally informative.

Robert

✉ My first encounter with Digit happened in 2002 purely by chance. One of my friends had the Playware CD (yes, it still reminded of the old times when we got Playware and Mindware CDs with each issue) which had the demo of Cricket 2002. I borrowed it to try out the game and ended up losing the disc so had to buy the magazine to give him back the disc. Since then I doubt having missed a single issue.

Over the years, Digit has taught me a lot. I get a lot of tech knowledge from the magazine every month which has enabled me to become the tech guru among family and friends. It's also taught me to become self-reliant to the point that I felt confident enough to assemble my own PC, judge different products in order to select the best one to buy and find out solutions to my tech problems and for that you have my gratitude. I've seen the magazine undergo a lot of



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Google+ iOS App Updated

Google updated its Google+ iOS app, adding several new features, including instant photo uploads and the so-called "What's Hot" stream <http://bit.ly/wxPGCC>

Firefox 10 Launched

Firefox for desktop and mobile has been launched, with a significant number of changes, from improved add-on compatibility to developer tools <http://bit.ly/w16to0>

LETTER OF THE MONTH

✉ Before I begin, I would like to assure Mr Keshava who wrote in last month that this is in no way a rebuttal to his letter but just my opinion on the subject at hand. I've been reading Digit regularly since 2005. The very fact that I, with so many others before me, still continue to do so with aplomb should be proof enough that a majority of us don't consider the articles as space-fillers. In fact, Digit should be credited for being consistent and focused on what it set out to do originally. Digit cannot be faulted just as we can't fault the "International Science Magazine" for not writing about sports or philosophy. And other publications too cost no less than Rs.100 and they don't dole out anything like Fast Track or multiple DVDs. Just as Science magazines' readers lap up all those wonderful articles, there are lots of us who swear by every article in Digit. It isn't hard to fathom that Digit is PC-centric, aimed at readers interested in it and guiding new PC-enthusiasts

on their way in. The continuous stream of reviews and tests can be attributed to the fact that nowadays new products are launched, older ones upgraded and prices change virtually every other day. Digit, in fact, should be lauded for keeping up with these so efficiently. But having said that, in a way, the views of Mr. Keshava actually bring forth everything that's good about Digit. There are readers who like Digit but want it to cover other aspects of technology they are interested in. Something akin to feeling aggrieved over Sachin's decision not to play T20 internationals!

Pema Wangchuk

✉ Wow, it's like yin and yang. Digit gets many letters each month, and for each critique we receive, we also get many letters of appreciation. We're humbled by your feedback, thanks for reminding us that we're headed in the right direction.

Robert

changes and I must say currently the magazine is as good as it has ever been. Ideas like planting a tree and the new DIYs are simply brilliant. I know a lot of people complain about the layout of the pages, the discs and too many ads but it's understandable. Not every person will be satisfied with the same design and as for the ads, well, considering the awesome deals you give your readers, even you have to generate revenues. However, placing the ads in the middle of an article is definitely irksome.

Although it's really hard to pick out a particular favorite section, still I guess the two things that I love to read are the editorial and Agent 001. The quality of writing and information provided in these show how hard you work to keep your readers happy.

I do have one request. In the next issue could you give us some tutorials on Android app development such as how to retrieve data from a website into the app and linking items such as timetables from the app to Google Calendar on the phone. It would be really helpful.

Before I sign off I have one issue that I wanted to know your thoughts on. My friend bought the HTC Salsa which was claimed to have 512 MB of internal memory. But it had way lesser than that with HTC claiming most of the space is taken up by the OS. As a result she can install at most 7-8 apps before her phone starts to run out of memory. Shouldn't the internal memory quoted be exclusive of the space taken up by the OS?

Finally, the journey with Digit has been great to say the least. Keep up the good work and best of luck for the future.

Apoorv Singh

✉ Hey Apoorv, It's always a pleasure to hear from someone who has been reading our magazine since 2002 and we're glad that the articles have helped you out and that you've helped others in turn. The more people we can help, the better we feel about putting in our best efforts to bring out the magazine. About the phone, manufacturers market a product in a way which may seem

attractive but they rarely give out false information. It's mostly a play on words. In your case, the phone does indeed have 512 MB ROM and 512 MB RAM. You can use App 2 SD, from the Android Marketplace to move most of your apps onto the memory card. However, performance may take a slight hit given increased memory access times.

Nimish

✉ I'm a big fan of your magazine and I must say that you all are doing really great work to keep all the readers like us always updated about the latest gadgets and other trends. Although, I'm not a regular reader, I always try to get my hands on your magazine whenever I can from my uncle. Ever since I first played Mario on my gaming console, I have always loved gaming and now it has almost become impossible to skip a day without trying out the latest games.

However, I'm really interested to know more about how people make such games like Call of Duty, Gears of War, Crysis, Prince of Persia etc. with such splendid graphics. I too want to make my own 2-D and 3-D games but have no idea about where to begin. I have searched the internet for it but couldn't find any informative article that I could grasp properly. Books on gaming couldn't help me either. So, I would like to have an article about game designing, details about all the skills necessary for game designing and development. I hope to see it soon so I can learn some of the skills necessary to bring out my first game.

Sanat Biswal

✉ Hi Sanat, You couldn't have asked this question at a better time, you're in for a treat. We have a Fast Track on Careers in Gaming this month. We believe that we've covered pretty much everything that you've mentioned here from learning about game development, to earning from the same and gaining better visibility for your games. There's also resources to get you better acquainted with the industry. Do write in and let us know how useful the book was.

Nash



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Google wireless entertainment device?

Google is apparently testing out a wireless home entertainment device, according to a filing with the Federal Communications Commission (FCC). The company will be conducting testing across four cities, with devices distributed across 252 homes until July.

The filing reads: "Google is developing an entertainment device that requires testing outside the laboratory environment. The device is in the prototyping phase and will be modified prior to final compliance testing."

The relevance of last year's project, Android@Home, announced at the Google I/O event, is striking, functionality that allows Android apps to interact with devices at home. Combined with Google Music, and Android Market Movie Rentals, this will probably give the hub-like wireless entertainment device the ability to stream various types of content to devices in the home.

Google so far has not officially commented about the veracity of these reports, rather expected if the device is in its prototype stages. With Google TVs and set-top boxes offering nearly the same functionality, Google is probably trying cover all bases, with different home entertainment product types, for various demographics.



Sony PlayStation Vita arrives in India

At the time of writing, Sony India announced it will be launching the PlayStation Vita in India at the same time as the UK - on February 22. The Sony PlayStation Vita, Wi-Fi only model, will be priced at ₹.19,990 and the Wi-Fi + 3G model at ₹.24,990. Game titles are expected to range vary between ₹2,200 to ₹2,800, according to the NDTV report. The PlayStation Vita memory cards, which replace the UMD, will come in sizes ranging upto 32GB, but haven't yet got official India prices.

The Vita will run on a quad-core ARM Cortex A9 processor, feature SGX543MP4+

graphics; apart from multiple input interfaces including gyroscopes and touchpads, six-axis motion sensing, dual analog sticks to a 5-inch OLED capacitive touchscreen. The Vita also has a front and rear camera, built-in stereo speakers and a microphone, GPS functionality, and apart from that, Wi-Fi 802.11b/g/n, Bluetooth 2.1+EDR (A2DP/AVRCP/HSP), and unspecified 3G connectivity.

Sony has already announced 26 titles at launch, including such games as Lord of Apocalypse, Super Stardust Delta, Ninja Gaiden: Sigma and Ultimate Marvel vs Capcom.

BSNL launches three Android tablets, starting ₹3,250

BSNL has announced it will be launching three Android tablets on March 1, with special data plans. Manufactured by Pantel, BSNL's three tablets run on Android 2.3 Gingerbread, and aim to cater to both the low-end and mid-range segments of the markets, with prices ranging from ₹.3,250 to ₹.13,500. Pantel will also be looking to launch the tablets via MTNL in its markets.

The budget tablet - BSNL Penta T PAD IS 701R bears a 7-inch resistive touchscreen with an 800x480 pixel resolution, a 1GHz processor, 256MB of RAM, 2GB of built-in storage, microSD expandability up to 32GB, and Wi-Fi connectivity with 3G Dongle support. It will be interesting to see the competition between the Aakash tablet and this device.

Next up, is the BSNL Penta TPAD WS704C, priced at

₹.10,999. It runs on a 1GHz processor with 512MB of RAM. The leader of the pack is the BSNL Penta TPAD WS802C, will be priced at ₹13,500. It will bear



an 8-inch capacitive touchscreen, and will run on a 1.2 GHz processor with 512MB of RAM. Other specs include a 2MP rear camera, a 0.3MP front camera as well as an HDMI port and support for 1080p HD playback.

All three tablets will come with one year warranty. BSNL's data plans for these tablets start at ₹.250 for 2GB of data and ₹.750 for 5GB.

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Hard drive prices soar 28 percent after Thai floods

The average price for a hard drive jumped 28 percent during the fourth quarter as a result of the Thai floods. While prices will decline by 3 percent in the first quarter and by 9 percent in the second quarter, they will remain inflated above 2011 levels throughout 2012, IHS said in an analyst report.

Just 124 million hard drives were shipped during the fourth quarter, the peak of the holiday season, down 26 percent from last year. The disk-drive industry is not expected to return to growth until the third quarter. Hard-drive sales are typically strongest near the end of the third quarter and the beginning of the fourth, as OEMs begin ramping up purchases for holiday sales.

IHS said shipments should increase 2 percent during the third quarter, to 178 million units. By the fourth, the drive industry is expected to sell 185 million drives, 45 percent above the flood-ravaged shipments of the fourth quarter 2011.

Prices however, may remain high because of long-term contracts as well as the impact of the Seagate-Samsung and Western Digital-Hitachi mergers, which have consolidated the industry.

Floods ravaged Thailand from mid-2011 until January. Hundreds were killed. The World Bank said that the largest portion of the damage at about \$35 billion, was to manufacturing.

RIM sets up server to intercept BBM data in real-time



It looks like Research in Motion's woes in India are finally coming to an end, with the Canadian mobile manufacturer delivering a real-time data interception mechanism for its BlackBerry

Messenger (BBM) services to the Indian government.

RIM's troubles started back in July 2010, when the Indian government requested access to BlackBerry data for internal security purposes, later even threatening manufacturer with a country-wide ban of services. RIM has finally set up a server in Mumbai for the task, allowing various government agencies to monitor BBM data feeds in real-time.

Mozilla to unveil Boot2Gecko at MWC

Mozilla will be making a major announcement at an MWC, and according to the latest industry speculation, the non-profit foundation will be unveiling the first mobile device running the Boot to Gecko (B2G) OS.

At MWC, Mozilla will also finally be opening the Mozilla Marketplace to developers, seeking to populate it with open web apps for the Firefox

browser and Boot to Gecko devices, using only CSS, HTML5, and JavaScript. Similar to Chrome OS, the OS will be primarily browser-based. Mozilla will be using its Firefox Web APIs for HTML5 and JavaScript scripts to interact with the device's hardware.

The first B2G device is expected to be made by LG. It will be a developer phone to assist in app development for the newly created app store.

The best office suite ever – released



The Document Foundation (TDF) has released a new version of LibreOffice, the popular open source productivity suite. Officially the third major release, LibreOffice 3.5 will apparently show end users the improvements derived from the new development strategy adopted in September 2010, involving a combined effort of full time and volunteer hackers.

According to TDF, in the 16 months it took to develop the latest version of LibreOffice, with 80 developers working on it each month, producing over thirty thousand code commits. The latest version is being called "the best free office suite ever".

New features are spread across Writer, Impress/Draw, Calc, and Base applications. Writer has a new built-in Grammar checker for English

and other languages, improved typographical features, an interactive word count window with real time updates. Impress and Draw get an improved importer of custom shapes and Smart Art from PPT/PPTX, a new display switch for the presenter's console, new line ends for improved diagrams, and Microsoft Visio import filter.

Calc now has support for up to 10,000 sheets, a new multi-line input area, new Calc functions, better performances when importing files from other office suites, multiple selections in autofilter, and an unlimited number of rules for conditional formatting. Base will get a new integrated PostgreSQL native driver. The biggest change for the whole suite is the online update checker, which will notify users when a new version of the suite is available.

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Amazon lowers prices for S3

Amazon S3, or Amazon Simple Storage Service, is a cloud storage service. Unlike Dropbox or other cloud backup and sync services Amazon S3 isn't meant for consumers, it's for use as a storage and distribution service. It provides an API for storing, retrieving, setting permissions for and deleting objects on their service, and is intended to be used at the back-end of sites. Amazon levies charges for S3 based on how much storage is used, how much bandwidth is consumed and the number of requests made to their API on a monthly basis. The current price drop is for storage consumption only and not for bandwidth usage or API requests.

To see the full list of price changes, go to <http://bit.ly/yc6aSo>. **f**

Welcome to the jungle, says Amazon

While most of us were expecting Amazon.com to launch its India site, it came as a slight surprise when it launched Junglee.com instead. With a name that is at once a nod to its parent company and the South American rainforest, Junglee.com also subtly separates itself in form and function from Amazon. It officially refers to the Hindi word meaning "of the jungle", and is a site that helps

retailers in India, and would have been called an aggregator if it didn't also sell stuff from Amazon.com. The site currently boasts of a wide product range, spanning 12 million products and 14,000 brands, with a plethora of retailers lined up including online stores and deal-of-the-day sites such as Saholic.com and Snapdeal.com, and others such as Homeshopl8, UniverCell, Hidesign, Gitanjali, The Bombay Store, Fabindia, Bata India Limited, Dabur

Here's the downside though. You still pay the full shipping costs if you make international purchases from Amazon, so there's no benefit to customers. You're better off buying your gadgets from Ebay India.

Junglee.com also features customer reviews, product and seller ratings and integration with Facebook, Twitter, other social networking sites and email if you want to share your finds with friends. Amazon.com's reviews are also available.

The good thing about shopping on Junglee is that you discover sites and stores that you've never heard of, and you have so many more product variations to choose from, including those available exclusively abroad.

Junglee.com is currently in beta mode, and expects to continuously evolve based on user feedback.

For now, amazon.co.in doesn't seem likely given how the Indian government has yet to give its final go-ahead for FDI in multi-brand retail. **f**



customers "navigate the jungle of products, brands, sellers, shipping options and payment methods, and make informed purchase decisions."

Junglee.com is called an "online shopping service" where customers can search for products from online and offline

Uveda, Microsoft India Store and Reebok.

Rather than buying directly, users of Junglee.com are directed to the seller's web site, and in cases of physical stores, given directions and contact details to place an order. There's a selection of buying options.

Flipkart acquires Letsbuy

Flipkart has acquired LetsBuy for an undisclosed sum. Reports estimate that it was bought for roughly \$20-25 million. LetsBuy's founders and 350 employees will stay on, as will the online retail site. Flipkart, which until now has been looking to sell across categories, will now be able to use Letsbuy's

richer catalogue of electronics and lifestyle products.

LetsBuy is the second-largest online electronic goods retailer and one of Flipkart's biggest competitors.

Speaking about the deal, Flipkart's CEO and co-founder, Sachin Bansal, said: "This acquisition fits into our strategy of building dominant shares in all



categories where we operate. We are already leaders in the books and media verticals. Given that we managed to build a leadership position in consumer elec-

tronics as well since its launch in early 2011, it made sense for us to consolidate when we saw this opportunity. This acquisition opportunity came at a very attractive price and the timing had also been ideal. The synergies will now allow us to accelerate faster and get to a share similar to what we enjoy in the online books category." **f**



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HTC Music Streaming Service

HTC is supposedly working on a music streaming service as a step forward together in its partnership with Beats <http://bit.ly/xEDQX7> Audio.

Google TV YouTube Updated

Google has released an update for its YouTube app on Google TV, with better content discoverability and community interaction. <http://bit.ly/wS73AL>

Google to launch Drive cloud storage service soon

Google is looking to launch its own cloud storage service in the near future, according to a report by the Wall Street Journal. The new cloud service will be called Google Drive, and will be geared towards easy access across multiple types of portable and desktop devices.

Google Drive, taking on Dropbox and Apple iCloud, will reportedly allow storage of photos, documents and videos, and access via any Web-connected device. Sharing files will also be easy, with users able to pass on a link to the file via email. Drive is expected to be a free service, with paid premium

benefits like larger storage. The idea of a Google cloud storage service has apparently been in the works for years, with a project internally known as G Drive doing the rounds in 2007. Since then, many services have been catering to the rapidly growing demand for cloud storage, and

Google was definitely a big player missing from the market.

Google apparently hopes to compete with Dropbox and other mobile-accessible cloud storage services, by offering much cheaper paid storage, leveraging its massive server farms. Integration with Google Docs is, of course, expected. [f](#)

Chemicals Behind Facebook 'addiction'

From time to time, you hear people make the tongue-in-cheek assertion that

they're "addicted" to Facebook. But recent data suggests that there might be some truth to such statements. A group of

researchers from the University of Milan and the Massachusetts Institute of Technology (MIT) identified chemical reasons at the root of the pervasive need to check social networks, Boy Genius Report has learned.

They found that users exhibit physical and psycho-

logical responses when they log onto Facebook, similar to the sensations experienced by people when they play an instrument or engage in some kind of creative activity. Scientists monitored 30 subjects ages 19-25 as they looked at photos of nature, tried to solve math problems, and perused Facebook. They recorded physical reactions including skin conductance, blood volume pulse, electroencephalogram, electromyography, respiratory activity, and pupil dilation to uncover a pattern.

indicates that the Facebook experience was significantly different from stress and relaxation on many linear and spectral indices of somatic activity. Moreover, the biological signals revealed that Facebook use can evoke a psychophysiological state characterized by high positive valence and high arousal." It added that it's possible users reach a "positive affective state" when they access their social networks.

The report comes the same week that a University of Chicago study found Facebook can be more addictive than cigarettes or alcohol.

With Facebook boasting 845 million users and Twitter at around 300 million, this research could be part of the reason for their enormous numbers. In fact, the researchers indicated that people seek out sites like Facebook and Twitter to receive this type of satisfaction, which has in turn, boosted their growth.

There's been no shortage of Facebook studies and another report released last week found that those with a low self-esteem suffer more by using the site, as posting negative items to Facebook often makes them appear less likable to their friends. [f](#)



physiological responses when they log onto Facebook, similar to the sensations experienced by people when they play an instrument or engage in some kind of creative activity.

Scientists monitored 30 subjects ages 19-25 as they looked at photos of nature, tried to solve math problems, and perused Facebook. They recorded physical reactions including skin conductance, blood volume pulse, electroencephalogram, electromyography, respiratory activity, and pupil dilation to uncover a pattern.

The study says: "Statistical analysis of the psychophysiological data and pupil dilation

Web censorship row: Facebook, Google remove "offensive" content

Google and Facebook have told a Delhi court that they've already removed offensive content from their sites. The court is hearing a civil suit filed by a Delhi resident Vinay Rai against 21 internet companies including Yahoo and Orkut for allegedly hosting objectionable content. Google and Facebook had earlier told the Delhi High Court that it was impossible for them to monitor content with billions of people accessing the web sites.

During the court hearing, another legitimate question was raised - whether blog-service providing companies should also be made a party to the case for posting offen-

sive content posted by their users on blogs.

The web censorship row came into the limelight in December last year after the court issued summons to the social networks over the "anti-religious" and "anti-social" content they hosted. The government previously has made various attempts at removing such content from the internet. Google, however, refuses to oblige stating that it won't simply delete content because it's controversial.

It now looks like Google has softened its stance on the ongoing censorship row in India. It may be recalled that both Twitter and Google recently have come up with country-specific content filtering mechanisms. [f](#)

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Chrome Comes To Android

It took Google ages, but it has finally released a beta Chrome browser for Android, with mobile and tablet versions.

<http://bit.ly/Asuzj0>

Sony Ericsson No More

Sony has finally completed its acquisition of Ericsson's stake in their joint venture – Sony Ericsson is now Sony Mobile Communications.

<http://bit.ly/zKRUXj>

Samsung Galaxy Nexus coming to India in March

Samsung's Android 4.0 Ice Cream Sandwich-based smartphone, Galaxy Nexus, is likely to arrive in India in March. The launch of the Samsung Galaxy Nexus was pushed till January after Samsung said it had "many products" scheduled for December.

Samsung India on its official Twitter account said that the smartphone is going to be launched in March but didn't supply exact dates. In another post, Samsung India promised to give updates



about the Nexus smartphone once it got more information. The official registration page of the handset, however, it still has the product listed as "coming soon".

The Samsung Galaxy Nexus may not be the first ICS-based smartphone in India. Huawei's Honor is reportedly arriving in India in February with the ICS update. It's notable that other manufacturers such as LG and Sony are also rolling out ICS update for their respective premium smartphones. **f**

Windows Phone Tango minimum specs and limitations

New details have been uncovered about the Windows Phone Tango update, by members of the Russian WP7forum, while testing the new OS on a developer device – the HTC Mazaa. While the news brings details about the various improvements that Tango will bring to Windows Phone, it also brings word of the limitations in place for lower-end devices that Tango will enable.

Windows Phone Tango will apparently bring the minimum memory down to measly 256MB

RAM, which brings with it the caveat that Windows Phone devices with that much memory



will not be able to support all apps, their third-party Live Tiles will not work, they won't playback videos with more than a 4Mbps bitrate, they won't be able to upload images auto-

matically to SkyDrive, and, they don't support on-phone podcasts management. Win-

dows Phone Tango's minimum camera configuration is 3MP, compared to 5MP.

Improvements come in the form of SIM contacts migration, enhanced roaming options, automatic app update via Zune, more pre-installed apps, more

languages and C++ support (as we've heard before), as well as improved MMS capabilities finally featuring audio/video support, and multiple photo attachments. **f**

Apple top smartphone manufacturer of 2011

According to data by Gartner, Apple was the top smartphone maker of 2011, with the most shipments giving it to 18.9 percent of the market share, up from 15.6 percent last year, when it also led the pack. Samsung comes in a very close second, with less than half a percent difference, at 18.4 percent, up from 8.5 percent last year. Nokia came in third, at 17.9 percent, down from 34.2 percent last year, while RIM came fourth, with a 10.9 percent share, down from 16.6 percent last year. HTC's share rose from 8.2 percent last year, to 9.1 percent this year.

Fourth quarter sales of the iPhone 4S were what gave Apple

the edge against Samsung, with 37 million iPhones sold, giving it a 23.8 percent share in that period. 149 million smartphones were sold in the last quarter of 2011, a 47 percent increase from the same period last year. The report pegs total sales in 2011 at 472 million smartphones glo-



bally, 58 percent more than 2010, accounting for 31 percent of all mobile sales.

In overall smartphone sales by operating system, Android

declined in market share in the last quarter, the same period that saw Apple's iOS-based iPhones doing spectacularly well. While shares dipped, Android still dominated the market, with a share of 51 percent, up from 30 percent in the same period last year. Apple iOS claimed a 23.8 percent share of the market in Q4 2011, compared to 15.8 percent last year.

Overall, across both smartphones and feature phones, Nokia retained its top position with a 23.4 percent market share, while Samsung came in a close second at roughly 19 percent. Apple reaped its smartphone success, taking third place, while ZTE pushed ahead of LG at fourth. **f**

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Dual-SIM Android Trio

Samsung has launched the Galaxy Ace Duos, Galaxy Y Duos and Galaxy Y Pro Duos in India.
<http://bit.ly/wHMJMY>

What's Hot, with msnNOW

Microsoft has developed a new social and news reading application, called msnNOW, what's hot, and trending.
<http://bit.ly/xhyYlu>

Windows Phone 8 will be based on the NT Kernel

Despite the similar names, Windows Mobile / Windows Phone and the Windows we use on desktops don't share the same kernel. While the Linux kernel used in Android devices and the one used in desktops are quite similar, the same has not been true of Windows desktop and mobile OSs. Come Windows Phone 8 this will change.

For those who might not know this, the kernel is the very core of any operating system. It handles direct communication with the hardware, managing system resources such as CPU, RAM, and I/O devices. Applications built to run on one kernel will not run on another. Despite looking and behaving drastically different, Ubuntu Linux, Android and MeeGo at their very core use the Linux kernel.

It is possible for some applications written for MeeGo to run directly on Ubuntu, and vice-versa, although Android is a different story since its applications run on a VM.

Quite some details about Windows Phone 8 have been leaked via a video intended for internal distribution within

kernel from Windows 8, this essentially means that Windows Phone 8 and Windows 8 will be the same OS. By basing both operating systems on the same kernel, developers at Microsoft can share code for common features between the OSs. This would include code for sensors, networking, multimedia, etc.

So what does this mean for Windows Phone 7 apps, considering that Windows Phone 8 changes the architecture of the OS. Well, not much. Windows Phone 7 applications are not built on native code, so it is easy for them to be supported on Windows Phone 8. On the other hand, this might make it possible for developers to share more code between Windows 8 apps and Windows Phone 8 apps.

Of course, simply coming up with a new architecture won't attract any new users. Windows

Phone 8 will also come with a number of new features: Internet Explorer 10 for mobile will come in Windows Phone 8. Like Opera for desktop and mobile it will support server-side compression for lower bandwidth usage and faster internet access on mobile. A new technology called "Data Smart" that comes in Windows 8 and Windows Phone 8 optimises cellular data usage.

Skype, recently acquired by Microsoft, will be more tightly integrated into the system, but still a separate app. SkyDrive, Microsoft's cloud storage service will be integrated for sync across phone and desktop. New business features such as support for hardware-accelerated encryption - allowing businesses to distribute apps privately within the company. NFC support will also be available, for sharing content and payments.

Windows Phone 8 seems to be an exciting prospect indeed, although for now the new kernel seems to be the biggest revelation of all. 



Nokia. With Windows Phone 8 it seems Microsoft will finally unify their operating systems at the very core level. With Windows 8 already taking UI direction from Windows Phone, and Windows Phone taking the

Android menu button to be replaced by Action bar

Google is now recommending that Android app developers stop using the Menu button for their apps, instead, start using the Action Bar introduced in Honeycomb, and incorporated in Ice Cream Sandwich. A new section of the Android Design style guide has also been made, with recommendations on how developers should design their Action Bars.

The move is another step away from hardware buttons, a trend seen in Honeycomb tablets, and Ice Cream Sandwich devices,



which like the Galaxy Nexus, only feature Back, Home, and Recent Apps buttons - doing away with Menu, and Search buttons.

The change in design philosophy was announced on

the developer.android.com blog, with Scott Main, Lead Tech Writer, explaining that developers should move away from using the menu button, toward the more intuitive

and consistent action bar. "This isn't a new concept - the action bar pattern has been around on Android even before Honeycomb - but as Ice Cream Sandwich rolls out to more devices,

it's important that you begin to migrate your designs to the action bar in order to promote a consistent Android user experience."

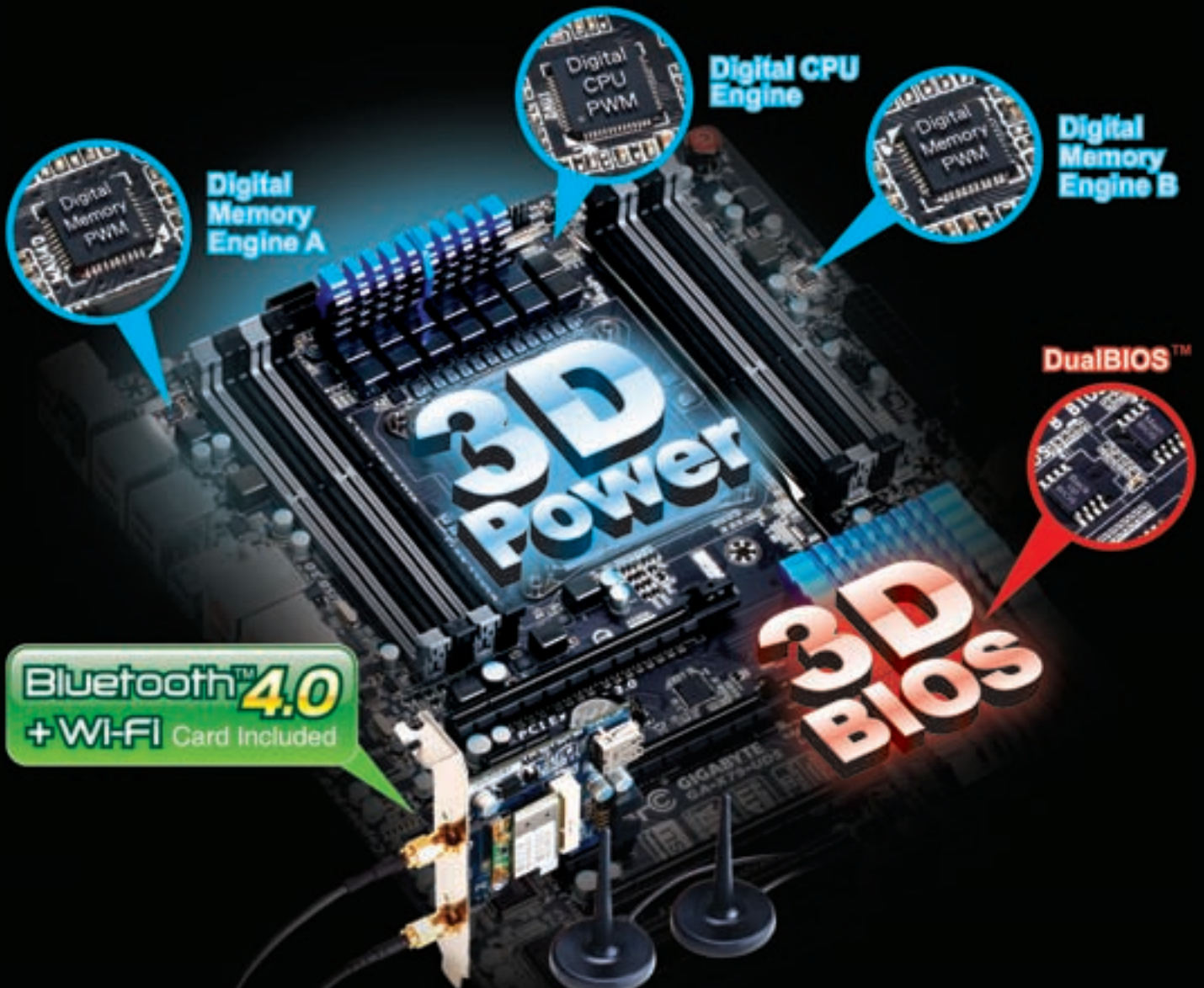
Further ensuring a consistent user experience for the action bar, the Android UX Team has designed common action icons to use, such as Refresh, Delete, Attach, Star, Share and more. For more information, refer to the "Say Goodbye to the Menu Button" post, the Android Design's Action Bar style guide, and the Action Bar developer guide. 

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From the horse's mouth

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<http://goo.gl/7nYgZ>



CAMERAVAGANZA IN JAPAN



Digit got a chance to visit CP+, the largest Japanese camera and imaging fair along with Canon's manufacturing facilities and HQ. In our free time, we also explored the beautifully heady Tokyo and picked up some Japanese lingo

Nimish Sawant

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Japan – the land of the rising sun, is also the hub of all the major camera manufacturers. Digit visited this beautiful country for its camera and imaging fair and also the Canon Oita manufacturing facility and Canon museum. We explored Tokyo in our free time, trying out some wild sushi dishes. So brave yourself for big fat Japan adventure!

The imaging fair

The CP+ fair started off as a camera show in 1960 in a Tokyo departmental store. Toay its organised by the Camera and Imaging Products Association, it's held in Yokohama, Tokyo. The "Shooting, Viewing and Linking", theme was apparent in the emphasis of dig-

ital images via technologies such as Wi-Fi, online printing services, cloud storage, etc. Over 50 new products were introduced this year with this theme.

Canon had announced its flagship pro DSLR – the EOS 1 DX and the EOS C300, its interchangeable lens video camera, towards the end of last year. These two products were the showcase of the Canon booth. We got a good-hands on time with both the beauties. The camera shutter at 14 fps on the Canon 1DX sounds like a machine gun. With as many as 61 autofocus (AF) points and the ability to choose single AF point or clusters of them, 1DX makes sure your images are in sharp focus.

The C300 has a unique form factor considering that it's a digital video camera. The best part is that you can affix any EF lens on the C300 and still

shoot. It's priced at a hefty \$20,000. Though its currently unavailable in India though. But we have got an exclusive preview of the camera just for you. Check it out at http://bit.ly/digit_C300preview



Canon 1DX with its superfast 14 fps burst rate was a joy to play around with

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Canon PowerShot D20 was the water resistant camera introduced at CP+ <http://goo.gl/JbDR7>

More images from CP+

Due to lack of space we could not fit in all the photographs we took at CP+ http://bit.ly/digit_cpplus2012



The latest innovation from Canon for film makers - the EOS C300

Canon also showcased its PowerShot series' flagship camera - the PowerShot G 1X, which has quite a large sensor at 18.7 x 14mm (putting to rest any rumours of a mirrorless compact). Infact Canon had a very neutral opinion on the matter, saying that it was studying the mirrorless compact market.

DSLR fanboys were disappointed as the rumoured 5D Mark III was just that, a rumour. No new DSLRs were announced. Canon launched a range of compact cameras including two IXUS cameras, the IXUS 510 HS and the IXUS 240HS; two travel zooms - PowerShot SX260HS and PowerShot SX240HS; six new PowerShot A series cameras and a rugged underwater compact - the PowerShot D20. Barring the underwater compact, all other cameras will soon hit the Indian shores. The IXUS and SX260 and SX240 cameras will feature the latest DIGIC 5 image processor.



The Nikon D800 created even more buzz than the D4



Canon had arranged their whole line-up of lenses in this wonderful display at the CP+ booth, where users could try out the lenses (Picture: Nimish Sawant)

The announcement that really impressed us was IXUS cameras supporting Wi-Fi. This allows you to transfer images as well as movies to your iOS



Canon IXUS 510 supports Wi-Fi image and video transfer

devices with the help of an app called Camera Window to be launched in March. An Android app will launch in May, according to a Canon rep. Once you review your images, a Wi-Fi symbol will show up in the top left corner. On selecting that, you get the option to send the image wirelessly to any of the devices seen on the camera. The Wi-Fi option also allows you to upload and images to the concerned device.

Canon Image Gateway, which is basically a cloud-based service offering 10GB of free storage space. There's still some time before it will be available in India.

Alongwith these compacts, Canon also launched three new EF lenses namely the EF 24-70mm f/2.8L USM II,

EF 28mm f/2.8 IS USM and EF 24mm f/2.8 IS USM. The latter two are the world's first wide-angle prime lenses to feature an optical image stabiliser.

Nikon had a booth dedicated to its flagship full-frame DSLR - the Nikon D4 and its recently announced upgrade of the popular D700 - the Nikon D800. The Nikon D800 is the more affordable option. A hefty 36.3MP sensor, 6fps shooting, 51 AF points and full HD shooting mode are just some of the features of this semi-pro D800. There was a huge line for the hands-on session with these two cameras.

As we were walking around the floor, we saw tonnes of booth babes posing for the army of photographers. It seemed like a great training ground for aspiring fashion photographers as they had everything at their disposal - beautiful models, great lighting and



The gorgeously retro Olympus OM-D E-M5 features a five-axis sensor-shift image stabiliser technology

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Paint - Sound - Photography

Here's a video which teaches you how to get some innovative shots with paint, a speaker and a camera
<http://goo.gl/0GoiC>

**Canon C300 preview**

EOS C300 was showcased at CP+ We got an exclusive hands on preview
http://bit.ly/digit_c300preview

elaborate setups. You only needed to have your own camera and flash unit.

Coming back from the babes to the booths. Though the Sony booth looked huge from a distance, a closer inspection revealed that the majority of the space was dedicated to the modelling stage. Sony had a whole line-up of compact, mirror-less compacts and DSLRs on display. What caught our eye was the CyberShot TX300V, a Japan-only camera. It looks like any other CyberShot compact, but its accessory – the inductive charging and transfer dock was impressive. All you have to do is place the camera on the charging dock, which is powered by your laptop's USB port. Once on the dock, you can charge the camera and at the same time transfer images.

Olympus took the curtains off its retro-looking flagship micro four-thirds camera – the OM-D E-M5. At first glance, the camera looks straight out of the 70s in terms of its design. It houses the TruePic VI image processor, 9 fps continuous shooting mode and is the world's first camera to implement a five-axis sensor-shift image stabilization technology.

One thing we found really refreshing was the love for vintage cameras in Japan. Many of the small booths were selling these vintage camera body covers for



No, that's not a vintage camera, it's an iPhone case!

your iPhone, complete with a neck strap. Speaking of iPhone accessories, we came across a bunch of additional lenses to clip on over your iPhone to give you the macro effect, wide-angle effect or even a fish eye effect. As it's not possible to



Photography wasn't allowed within the Oita complex, so Canon provided us this image of the DSLR assembling floor

show all the images here, head online for the whole CP+ coverage featuring lots of images of cameras, lenses, accessories and of course, booth babes. Here is a link http://bit.ly/digit_cpplus2012

Canon facility visit at Oita

We got a chance to visit Canon's camera manufacturing facility in the beautiful Oita prefecture,

renowned for its hot water springs. Oita gives you a glimpse of what the Japanese country side can look like – peaceful, a far cry from the heady Tokyo. At Oita, is located Canon's manufacturing plant which oversees three main product groups namely DSLRs, compact digital cameras and video cameras. In short, this is the birthplace of all of Canon's cameras. It's a bit ironic but you can't use your camera

inside this complex which makes cameras.

The whole complex comprises of around nine buildings which are spread over a huge area. But once you're inside one building, you can get to any other building as they're internally connected. Before entering the buildings, you have to place showercaps over your shoes

to prevent any dust from entering the facility. While walking from one facility to another, we tried our best to find even a hint of dust, but failed. It's pertinent that the environment is squeaky clean, as even a minor dust particle invisible to the eye can be problematic for the electronic and optical components. In fact, so particular is Canon with cleanliness, that even in the areas where cameras and lenses are assembled, there's a down-flowing air conditioning system. It carries away any dust particles and then that same air is recycled back.

Around 1999, Canon switched from the assembly line manufacturing process to the cell production system, which involves teams (cells) of workers building one camera from start to finish. This process works to Canon's advantage- cells of workers working on different aspects of the camera assembling stage makes them proficient with every stage of assembly.

Of course, there are automated machines for making circuit boards and glass moulding. But there's always a human element involved at the stage of inspection after the machines do their work. So there's a healthy human-machine work culture. Around 350,000 circuit boards are produced daily at the plant with end-to-end time for each board being around 40 minutes.



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Canon camera hall

The Canon camera museum is a treasure trove of information, but heres a site which tries to do that <http://goo.gl/Vr7cU>

An unlikely partnership

A more detailed take on the Canon-Nikon partnership for making the Hansa Canon <http://goo.gl/kji80>

The plant which pioneered the camera lens system for the compact cameras was particularly interesting. DSLR lenses are not made in this plant. Before being sent for moulding, the glass is first heated at very high temperatures – at around 700 degrees Celcius, and is then moulded to form the aspherical lens element. Then that glass element is polished. It is then sprayed with a vapour deposition coating to avoid unwanted reflections. The next step is the jointing and finally edge painting. These lenses are then inspected with a laser beam to see how light scatters within. After getting an all clear signal from inspection, the lens is ready to be inserted into the camera body.

On the DSLR and compact camera assembling floor, there were teams working on various aspects of the camera. For instance, one team was assembling the components while another was switching on the camera and performing some preliminary tests. Cameras are also tested for resistance to high/low temperatures, humidity and ability to withstand vibrations. Finally, comes the cell that's involved with packaging the approved camera. The floor also has an automated guided vehicle, which is a robotic vehicle with trays full of components that are in short supply on the floor. This vehicle delivers the components to the individual cells and then finally takes the packaged products to the shipping section.

The workers at Canon Oita plant keep filing Kaizens all year round. Kaizen refers to the philosophy or practise of continuously improving processes in any area of work. At the Oita plant, we were shown two such Kaizen programs- one which helps install miniature screws at perfect right angles and another which helps save time while handing over the camera from one worker to another on the floor. The latter kaizen involved a whole sort of machine which employed a pulley system and ball bearings.

Canon museum

Canon's headquarters located in Shimomaru, Tokyo, houses the Canon camera museum. This really brought out the photography enthusiast in us, as we



1) Film cameras from the 1960s; 2) Kwanon camera- the first camera prototype to be produced in 1934; 3) Hansa Canon (1936) was the first commercial Canon camera sporting a- hold your breath- 50mm f/3.5 Nikkor lens! (Pictures: Nimish Sawant)

checked out the first ever Canon camera, which was called Kwanon back then. The story of Canon's origin goes back to the 1930s when a group of friends in Tokyo were discussing how Japan still had to make a big name in the precision industry, notably cameras, where the only quality players were from Germany ie. Leica. In 1933, the Precision Optical Laboratories was established on a third floor apartment in Tokyo and in 1934 the first camera prototype – the 35mm focal-plane shutter Kwanon camera was launched. The Kwanon was named after the thousand-armed Buddhist Goddess of Mercy. That name later became Canon as we know it today. However, the first 35mm Canon SLR camera, Canonflex, was sold. This was followed by the mass-produced Canonet in 1960.

But the real kicker came when we learned about a collaboration that would be unthinkable in present times, that between Canon and Nikon. Yes, the arch-rivals collaborated on Canon's first commercial camera- Hansa Canon, which sported a Nikkor lens. Nikon just made lenses back then and the Nikkor lens was used in Canon cameras till 1948, when Nikon came out with its first camera. Check out some of those vintage cameras showcased above.

Exploring Tokyo

Being in Tokyo and not trying out the local cuisine is like committing hara-kiri. Japanese food is much more than just plain old Sushi – a raw fish cum boiled rice concoction bordered by seaweed. We also sampled the succulent Yakitori which is a form of grilled chicken on wooden skewers oozing with barbeque sauce; crispy Tempura which to put it simply is a shrimp *pakora*; slurpy Ramen with pieces of chicken and pork. Bored with chicken and fish after a while, we swallowed all our inhibitions and dunked right into the octopus meat sushi. All the food above was washed down with a liberal amount of Japanese rice wine popularly known as Sake. It was served to us in traditional earthenware which helped keep the sake cool. It had a lovely flavour to it and no, we didn't suffer from any hangover the next day. Japanese manga culture is a very profitable business in Japan. Where else in the world can you have comics book sales of over 500 million in a year or revenues of \$3.5 billion! At a venue called Takeshita Dori, you get to see an interesting side of this same manga culture. Takeshita Dori is flooded from end to end with the uber-fashionable youth, most of whom are dressed up as their favourite manga

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Shibuya timelapse video

A look at the sea of humanity that crosses the roads at Shibuya and how quickly the roads clear up as well
<http://goo.gl/s6pRj>



Maid Cafe culture

Maid Cafes in Tokyo cater to Otakus, but there's much more behind this subculture. Read on:
<http://goo.gl/0ku0P>




1) Popularly known as the Times Square of Tokyo, Shibuya is famous for its signal crossing; 2) We got adventurous and tried the Octopus sushi, it tasted like a stiffer version of squid; 3) Otakus or nerds outside the electronics megamall Akihabara engrossed in gaming. Notice how they're neatly standing against the corner of the pavement; 4) Vending machines are as common in Tokyo as paan shops in India. You'll find one at every street corner. There are over 5 million of them in Japan; 5) Looks tempting doesn't it? You'll come across many such imitation food displays outside Japanese restaurants. It's an art form in itself (Pictures: Nimish Sawant)

characters with elaborate makeup. On both sides of the street are shops, some selling simple desserts and clothes while others selling wilder items. If you happen to be in Tokyo, this is one place that deserves a visit to just get a feel of the teen culture here. You will find it right opposite the Harajuku metro station.

Speaking of metro stations, the Tokyo rail network is one of the most elaborate networks we've ever come across. We, the travellers of the famed Mumbai locals. While it's difficult for outsiders from

Mumbai to get their heads around three lines, imagine our dilemma as we had to make sense of around 13 lines dotted with 274 stations! But worry not, with the Tokyo subway map, you're good to go and you will always find a good samaritan to help you out. We encountered two such samaritans on two days. And if you miss the Mumbai rush hour, head to Shinjuku metro station which is packed to the gills with people during the Tokyo rush hour. Saving the best for the last - Akihabara, the mecca of electronics in Tokyo.

The Yodobashi Akiba building in this district has seven floors filled with electronic items. Each floor is categorised and you won't see such variety in products anywhere else. So be prepared to spend hours here.

And don't forget to check out the maid cafes which cater to the Japanese nerds also known as "Otaku". After a week full of camera extravaganza and introduction to Japanese culture, it was disheartening to bid Sayonara to the land of the rising sun. 

Adobe patches Flash

Adobe pushed an update to its Flash player to address around seven vulnerabilities

Twitter protects WiFi users

Twitter has turned on the secure browsing capability ie. HTTPS by default to protect WiFi users

Security watch

Govt attacked, Anonymous lingers

Last month saw a bevy of activity in the World Wide Web's underbelly. Here's the gist

Nine government sites hit by cyber attacks: NIC

The National Informatics Center (NIC) has revealed that as many as nine government websites were defaced by recent cyber attacks. It further said that the servers, which host these government sites, suffer a number of hacking attempts on a daily basis.

The websites www.kumbh-2010haridwar.gov.in, www.ueppcb.uk.gov.in, www.gov.ua.nic.in/ujn, www.cdodoon.gov.in, www.arunachal.nic.in, www.bee-india.nic.in, www.civilsupplieskerala.gov.in, www.mpcb.gov.in and www.informatics.nic.in were defaced, prompting authorities to ramp up the cyber security safeguards.

In an RTI reply, the NIC, which reports to the Ministry of Communications and Information Technology, said that it was impossible for the body to accurately quantify these attacks but they are usually blocked by security controls put in place. The NIC says there was "no such compilation available" on the affected URLs and portals. "Source of an attempt is mostly traced through Internet protocol (IP) numbers making these attacks. However, the IP number may not be correct, since usually attackers attempt to masquerade their origin."

Anonymous hacks FTC's OnGuardOnline.gov site, promises more mayhem

Part of its continued protest against online piracy bills, ACTA/PIPA/SOPA, hacker

groups Anonymous and AntiSec Ops took down a U.S. government anti-scam website, OnGuardOnline.gov.

The FTC said that it had taken the site offline, and will keep it that way until they can secure it. The OnGuardOnline.gov website contains information from various U.S. government agencies, such as military and law enforcement. Anonymous hackers recently took out the DOJ, FBI, Universal Music Group, MPAA, RIAA, and U.S. Copyright office websites, calling it their single biggest strike till date.

Announcing the deed on pastebin, along with links to file dumps, Anonymous hackers said:



If SOPA/PIPA/ACTA passes we will wage a relentless war against the corporate internet, destroying dozens upon dozens of government and company websites. As you are reading this we are amassing our allied armies of darkness, preparing boatloads of stolen booty for our next raid. We are sitting on hundreds of rooted servers getting ready to drop all your mysql

dumps and mail spoils. Your passwords? Your precious bank accounts? Even your online dating details?! You ain't even trying to step on this..

FBI wants an app to detect global and domestic threats

The FBI is in talks with developers to create an app that will notify them of suspicious behavior, combining information from Facebook, Twitter and Google Maps. The FBI has been monitoring user content on a lot of these sites for a while, and have lucked out in the past, catching many criminals who've unthinkingly revealed incriminating information.

"Social media has become a primary source of intelligence, because it has become the premier first response to key events and the primal alert to possible developing situations," according to the FBI.

The app will work as an early-warning system, allowing the FBI

to be alerted of any threats or crimes, with location information displayed on maps. The FBI's Strategic Information and Operations Center (SOIC), had put out a market research request for a "Social Media Application," in February, specifying the features required, including collecting open source information from

across the web on domestic and global terror data, automated search and scrape capability of social networks, and more.

Microsoft Store India hacked

Microsoft Store India has been hacked, by a group calling itself Chinese Evil Shadow Team. The site is not run by Microsoft, but Quasar Media, an Indian company responsible for its maintenance and operation. The website was taken down by Microsoft until it can be secured. The hackers have also leaked Microsoft Store India members' usernames and passwords, which horrifically enough, were stored in plain text.

The Chinese Evil Shadow Team is apparently a two-man team, who also managed to upload a page to deface the site. Microsoft India confirmed the attack, and sent out precautionary emails to members. The company reassured users that credit card details and payment information databases were not affected, however, other data may have been exposed, such as order details, and shipping addresses, apart from usernames, e-mail addresses, and passwords.

The company has asked users using the same e-mail and password combinations on any other sites to "proactively change the password immediately." Microsoft Store India will be sending an email with a temporary password and a prompt to create a new password. Users who receive the e-mail are requested to immediately create a new password. 

HTC to be PS certified

Some HTC phones are expected to get the PlayStation certification this year <http://bit.ly/xnQuqt>

Nothing beats streaming

After acquiring a stake in headphone maker Beats Audio, HTC will start a music streaming service

No iPhone = No Siri? Not really!

Third-party Android alternatives to Siri

Vishal Mathur

vishal.mathur@thinkdigit.com

The iPhone 4S allure lies in its full-time “intelligent” assistant at your beck and call. At its price though, an iPhone 4S isn’t within the budget of the majority of us. This made us wonder – can we get something similar for our Android phones? A bit of research later, we downloaded a whole bunch of third-party Siri clones from the Android Market. We’ve shortlisted three of the best. We asked each app the same question and got varied responses.

Iris.

Developer: Dextra

Price: Free

This is by far the most talkative



of all these clones, and gives the wittiest answers. You can ask Iris a general question, get it to call someone from the phonebook, play a song from

your phone’s library etc. The app is still in the alpha stage, but at the current speed and precision of development, it just may be Android’s answer to Apple’s assistant.

Andy

Developer: 74

Technologies

Price: Free

Voice recognition is something that’s going for this app in a big way. We didn’t have any issues with regards to accent or ambient noise for the most part, and Andy’s aura of seriousness when interacting is noteworthy. At first run, the app downloads a couple of 4GB worth add-ons, for which we suggest using Wi-Fi. While Iris has a humorous side to it, Andy keeps it very simple.

Alice

Developer: YourApp24

Price: Free

Alice works as well as Iris and Andy, and is yet another alternative, even if only for some fun. Again, this app seems to have better voice recognition than the original assistant on the block, Siri! Some answers seem to cross the border of being funny, deep into the “What the hell!” category! However, Alice is plenty of fun to use. Must download, more so because it’s free.

Surprisingly or not-so-surprisingly, when we think about it, all the slaves...umm, we mean friendly personal assistants on Android have better voice recognition than Siri. Android apps use Google’s very precise built-in speech recognition. **tl**

Windows Phone Apollo – landing soon

But will it take Windows’ smartphones (or superphones) to the next level, particularly in the app ecosystem?

Vishal Mathur

vishal.mathur@thinkdigit.com

Yes, yet another leak, this time detailing the complete feature-set of Microsoft’s next smartphone OS – Windows Phone 8, codenamed “Apollo”.

Wider hardware compatibility

As expected, Windows Phone 8 will bring in support for multi-

core processors, allowing for a wider range of smartphones to fill the market – that means more dual and quad core processor powered smartphones for sure. Essentially, Microsoft is looking at the upcoming “superphone” segment (expected later in 2012). Though there’s no solid definition for the superphone, devices that will be based on Qualcomm’s A15 architecture and sporting HD displays fall into this category. While the exact

numbers haven’t been specified, the new OS will support four different display resolutions. Expect a host of display sizes with varied resolutions. To be at par with Android and iOS on the spec sheet, Near Field Communication (NFC) will also be supported. Tap-to-share capabilities will allow sharing with multiple platforms, allowing desktops, tablets and other smartphones to share content with ease.

We think

This brings WP 8 on par with Android and iOS in terms of hardware compatibility. As for the superphone bit, WP 8 does nothing earth shattering – there’ll be similar phones on Android. And who knows what the iPhone 5 will be like?

Applications and OS features

Windows 8 Phone will have a lot in common with Windows 8



Facebook app for WP

After being updated, this brings Windows Phone at par with Android and iOS apps

Call details for prepaid users

Vodafone has started MyAccount services for Prepaid users with complete call details

App Watch

desktop OS, critically “most of the code”. This will help developers port Windows 8 apps on to Windows Phone 8, particularly on tablet devices. At the time of writing, we were getting conflicting reports, some suggesting that this kernel sharing may not happen. Safe to wait on that one! The current Windows Phone 7 has the same kernel as Windows CE. The Metro UI will be very similar on the two OSes. Zune desktop will make way for a more streamlined application for syncing data to and from the phone. SkyDrive will have deeper integration – all your documents and media will be instantly available on your new phone. Skype has been integrated into the OS, allowing for VOIP calls to be made in a way similar to non-VOIP calls.

On the way is the removable storage feature for microSD cards. At the moment, Windows Phone 7 needs to format the external storage before it can be read.

We think

If the kernel-sharing thing goes ahead, the sheer number of apps ported across the two platforms will be tremendous. It will give WP 8 a huge advantage in catching up with Android and iOS in terms of app store population. And hopefully a smoother sharing experience between the desktop and smartphone, with the likes of SkyDrive, Office etc.

Secure for business

With one eye on getting a chunk of the BlackBerry

market, the new OS will come with 128-bit full-disk encryption, similar to the one we see on higher-end versions of Windows 7 PC OS at the moment.

We think

Microsoft wants to call up all the Windows Phone 6.5 Professional users (who have now surely moved on to BlackBerry, iOS and Android) and probably meet up for coffee!

Managing data

While this feature has been around in most other smartphone OSes for a while, WP8 will offer data usage monitors. A live tile will allow a one-glance check. While this feature may not be available in India, the new OS will

automatically connect to cellular network operated Wi-Fi networks.

We Think

Nothing new. iOS and Android already have apps that do this. But this is a step in the right direction.

At the moment, it isn't clear when exactly this version of the OS is coming. However, we expect it to be not soon after the Windows 8 official release sometime in October. It's safe to say that you'll have Windows Phone 8 smartphones in the global markets by the end of 2012. And this shouldn't be confused with Windows Phone Tango, an update for the current Windows Phone 7 OS. 

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Digital Life

38

How HANS (Head and Neck Safety) device saves lives of the race car drivers driving at blinding speeds

It's Sony Mobile now

Sony Mobile rebranding quietly begins after it buys out the Ericsson's wireless stake
<http://engt.co/AburHz>



Hasselblad H4D-200MS

Hasselblad products don't warrant any sort of introduction. The H4D-200MS is the latest offering from makers of the first camera to go to the Moon. The camera boasts of a massive 200MP resolution which is achieved by using an extension of the proprietary sensor-shift, multi-shot (MS) technology to create a 200 megapixel file from six images taken at slight offsets. Available at a heart-attack inducing price of ₹22,50,000.



Bionic Bopper Cars

This is what you'll get when you cross Bumper Cars with Rock 'Em Sock 'Em Robots. The driver sits inside the robot's protective steel cage and controls the pneumatic-powered, tire-tread-fists. A small speed-bump if you've gone ahead and started daydreaming about starting a Bionic Bopper Fight Club in your backyard, this pair costs about ₹8,50,000.

Ferrari F2012

The Italian car maker's F1 team will be racing with this brand new car, which they've dubbed the F2012. The main changes from last year include revisions to the front height, position of the exhaust outlet, changes to the electronic engine controls, the use of pull-rods to operate the suspension for better aerodynamics and a lower center of gravity. Ferrari is very confident about the car, though how well-placed that confidence is, only time will tell.



HUD glasses from Google

Insiders say that Google HUD Glasses will become available for purchase by the end of 2012
<http://bit.ly/yJBRIk>

Ubuntu for Android

Canonical has announced that it will be bringing Ubuntu in its full-fledged desktop form to multi-core Android devices

Drool maal

Motorola Motoactv

Motorola just gave you a new reason to start exercising. Motoactv is a GPS fitness tracker and an MP3 player bundled into one. The sensors along with the GPS track your time, distance, speed, calories burned and heart rate. An interesting feature is the MP3 player which actually learns about which tunes motivate you the most and then it helps you to create a perfect workout playlist for yourself. You can get one for yourself at around ₹12,000. Time to take out those running shoes.



Mark Levinson No52 Reference Dual-Monaural Preamplifier

Simply put, No52 is the best preamplifier to come out from Levinson's stables, period. This ₹12,00,000 preamp has systems in place to protect your aural experience from being degraded by sources you didn't even know were a problem. It completely isolates the analogue audio, control and power circuitry from each other to deliver the most pristine sound.



Celsius X-VI-II Papillon

You can leave it to the French to come up with something as zany as this, Celsius, a French company has launched the world's first mechanical cellphone priced at a whopping ₹1,50,00,000. It claims to have devised some sort of micromechanical system which converts the kinetic energy generated during opening and closing the clamshell into electrical energy. The phone does have a battery on the inside, but the flap has a fully-mechanical watch integrated inside it. The body is completely transparent, so you can peek inside its guts and wonder why you paid so damn much for the phone.



Limiting gizmos in a car

The U.S. Dept. of Transportation wants laws limiting the variety of gizmos that a manufacturer can install in a car

Tesla and Mercedes join hands

Tesla will provide the powertrain for an electric Mercedes set to be launched later this year

H.A.N.S. PROTECTING THE RACING DRIVER'S NECK



You thought speed kills. Well, actually, it's stopping instantly that's fatal. Safe to say, HANS has saved the necks of a lot of racing drivers over the last few years

Vishal Mathur

vishal.mathur@thinkdigit.com

“There are only three sports: bullfighting, motor racing and mountaineering; all the rest are merely games,” are the words of Ernest Hemmingway, American novelist and three-time winner of the Nobel Prize for Literature. The fact that he puts motorsports in the same category as bullfighting and mountaineering shows the very real danger the driver is in every time he straps himself with the five-point safety harness. And these dangers haven't gone away despite multiple safety measures.

After the fateful Imola Grand Prix weekend in 1994 that saw the demise of two drivers Ayrton Senna and Roland Ratzenberger, Formula 1 fans have been spared of any further fatal crashes. But there've been many dangerous ones over the years. Seven Indy Racing League and ChampCar drivers and four Nascar drivers (Adam Petty, Kenny Irwin, Tony Roper and Dale Earnhardt Sr.) have had fatal crashes.

What was common among all of them? They all had a fracture at the base of their skulls. The cracks happen when the head moves around freely upon impact, while the safety harnesses securely hold the rest of the body back. In simpler terms, it's essentially a whiplash.

What prompted HANS development?

While most people believe that the Head and Neck Safety (HANS) device came into being over the past 10 years, work on this began way back in 1981. Dr. Robert Hubbard was at the Uni-

versity of Michigan Highway Safety Research Institute, understanding the causes of head injuries during car accidents. What kickstarted this was the death of IMSA driver, Patrick Jacquemart during testing at the Ohio race track. Dr. Hubbard got in touch with his brother-in-law, Jim Downing, who was also a race-car driver and a close friend of Patrick. After understanding that Jacquemart had died because of what is now known as basilar skull fracture, the two teamed up and started working on a device that would keep the driver's neck secure at all times.

What HANS is meant to do

HANS is a U-shaped device that sits behind the neck, and has two shoulder supports on either side of the neck, extending all the way to the top of the chest. The critical bit of this device is the portion that starts at the base of the neck and extends half-way up the rear skull (an extender collar, if you will). When the racing driver wears his crash helmet, this portion is supposed to be outside the helmet, not inside. There are two tethers on either side of the HANS portion, which lock on to the helmet. In case of impact, these tethers are the most critical. By restricting sudden head movements, the energy (g-force, in other words) that would usually be in the neck and upper spine area is shifted to the front of the head, with very limited (padded or muffled, if you may) movements. With this in place, the head won't suddenly whip forwards and backwards in case of an impact. While the neck isn't held back stiffly, the idea is to keep the position relative to that of the body, preventing sudden and extreme



Beauty and the babes

Ford revealed the 2013 Mustang in a Sports Illustrated Swimsuit advert

Geek Life

movements. Even when wearing the HANS device, a driver's movement doesn't get hindered in any way.

It isn't heavy in any way, because this device is made of carbon fibre, kevlar, comfort padding and polyester straps. Different estimates give different figures, but the HANS device reduces the load on the neck by anywhere between 70 and 80 per cent. And that's the difference between life and sure death.

Initial apprehensions

Hubbard and Downing produced the first prototype of this device within one year of starting the project. However, despite its use in crash testing over the years, it wasn't until after Senna and Ratzenberger's deaths due to basilar skull fracture did Formula 1 teams sat up to take notice. By the late 90's even Mercedes F1 was doing the final stages of research on its HANS device. But interest started waning again, and not only the FIA, even authorities at Nascar, ChampCars and IRL weren't very interested. Probably exasperated, Dr. Hubbard went to a few races and offered these devices free of cost to any racer who would want to wear them. But a combination of ignorance, machoism and probably lack of self-preservation instincts ensured that this effort was in vain. The device went on the backburner again, for the next few years, until another life was lost.




In what was a very serious shunt in Montreal 2007, look at how Robert Kubica's head remains steady during multiple impacts.

HANS becomes mandatory, finally

February 18, 2001 at the Daytona 500, it was the last lap of the race. Dale Earnhardt, one of the "larger than life" figures in stock car racing in the States got dragged into a crash that started when two of his other colleagues tangled. Nascar had lost one of its icons, again due to the basilar skull fracture. In what was the deepest investigation of Nascar's safety in 50 years, it was found that Dale died almost instantaneously after his head hit the steering wheel.

After much debate and studying the device, authorities made the device mandatory in October 2001. FIA made this device mandatory in 2003.

Unfortunately, the motorsports world witnessed the death of Dan Wheldon at the Las Vegas Speedway, in a fiery crash, when his car flipped, and his head hit the fence. Just drives home the point that while danger will always be an integral part of motor racing, what matters is by how much extent we can remove that element. HANS takes care of one of those elements. 



The HANS system approved by Formula 1



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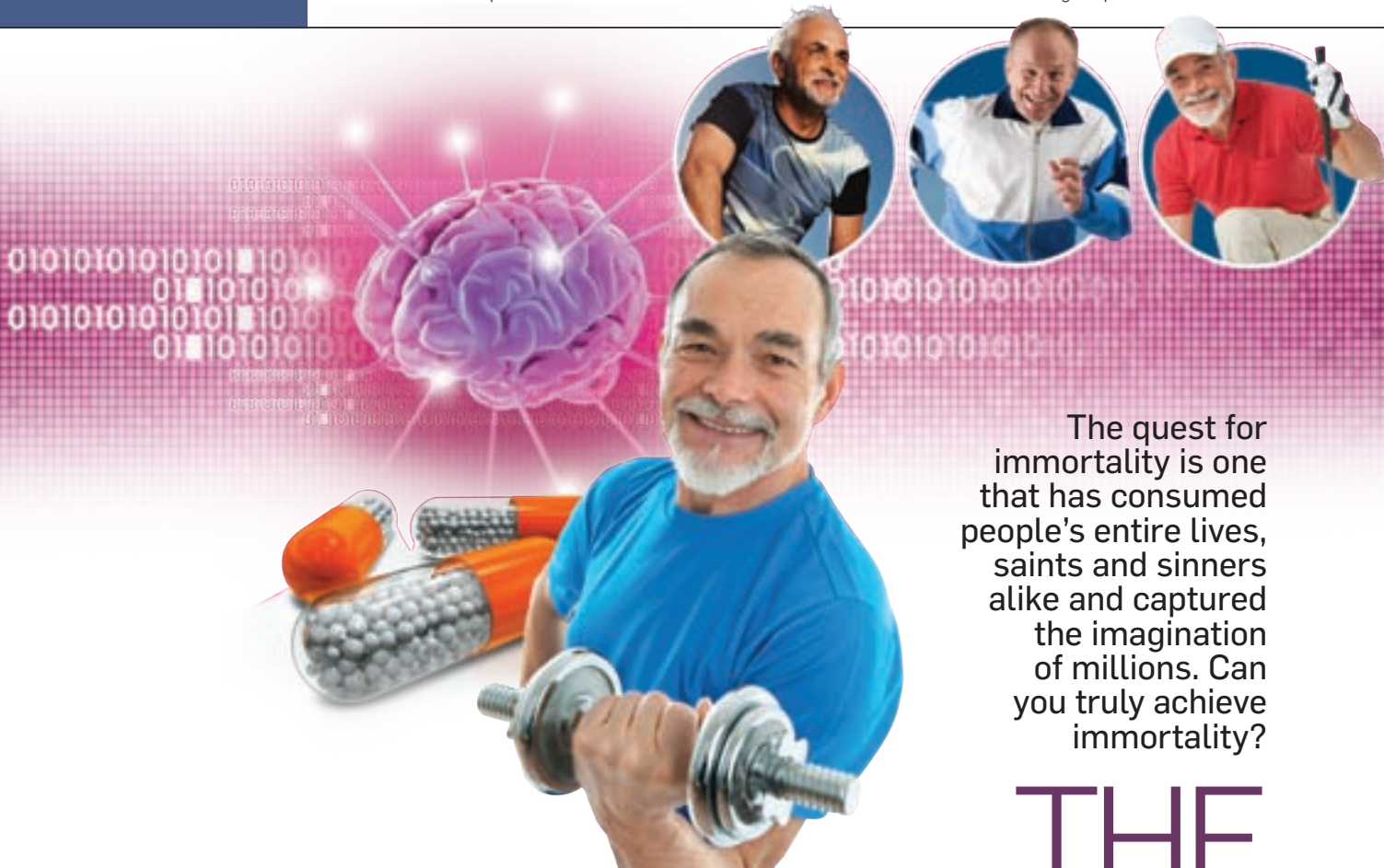
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 Types of jet engines and their inner workings explained



The quest for immortality is one that has consumed people's entire lives, saints and sinners alike and captured the imagination of millions. Can you truly achieve immortality?

THE IMMORTAL BEING

Anirudh Regidi
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What is immortality? A question that has driven many a philosopher to madness and one to which no one truly has an answer as yet. When you think of yourself as immortal, what do you envision? Your body frozen in time, but your brain untouched, gaining wisdom with the progress of time but still living and experiencing the human condition? A being of pure energy, one that can observe the passage of millenia with leisure (Dr. Manhattan, ring a bell?). Whatever your concept of immortality, we take a look at what medicine can do for us in this regard and see how far it can get us.

What is ageing?

Ageing is nothing more than your body wearing out and being unable to repair itself. An accumulation of changes. Consequently, a person who looks young at even, say, 50, does so because that person hasn't actually aged much. His or her cells are still going strong and are in better shape than those of the average

person. Scientists have a term for this, they call it negligible senescence, which is nothing more than a fancy term for saying 'negligible ageing'. Some organisms such as sturgeons and tortoises are considered to be in such a state. They are not immortal of course, but they do seem to live for hundreds of years with a barely noticeable difference in their physical condition.

Our body wears out over time with use. It is constantly bombarded with radiation, UV light, even foods such as glucose can damage the body from the inside, not to mention the action of various microbes. The cells in our body die and regenerate continuously because of this and several other factors. In fact, every few seconds,

approximately 50 million cells die and are regenerated and thus, a healthy body is one in which the cells are regenerating continuously. Once your rate of regeneration slows down and is unable to keep up with the rate of cell death, that is when you begin to show signs of ageing. Most cells in your body are only a few hours old, many even younger. Humans do experience a peak of regeneration or a state of "low senescence" between the ages of 20-35. A condition, if maintained, can lead to an exceptionally long life.

The basics

To understand ageing, we need to understand how a cell grows old. Cells in our

Jonathan the old

Jonathan, the 176 year old tortoise is considered to be the world's oldest living animal

Tomorrow's Tech

body are made up of various components, but the ones that we are going to consider are the chromosomes. These are super-coiled clumps of DNA (the template for life if you will) and contain all the possible data that is needed to describe you as a whole. These chromosomes need to be replicated identically in every cell in your body and are absolutely essential. So essential in fact, that the body has very advanced and reliable mechanisms to ensure that any cell with damaged DNA is destroyed immediately. The cell is forced to commit suicide, apoptosis according to biologists.

During normal cell division (mitosis in this case), chromosomes split exactly in half, ensuring that by the end of the process two daughter cells are formed which are identical to the parent. This is how most of the cells in our body are replenished. It may seem to be an ideal process, one in which cells can literally reproduce forever, but there is a catch as you will see.

Telomeres

At its tip, each chromosome has a protective "cap" called a telomere which protects it from breaking up, and also prevents it from fusing with another chromosome. This ensures ensuring that the DNA sample it carries remains undamaged. The telomere unfortunately, gets depleted every time the cell divides till finally, it can no longer protect the chromosomes. At this point, there is a chance that the chromosome gets damaged and the cell self-destructs to ensure that the DNA is not contaminated. This, in effect, is how ageing takes place.

Certain cells like the sperm and egg cells in our body produce an enzyme called "telomerase reverse transcriptase" (TERT), which increases the length of the telomere as and when required, potentially making the cell immortal. In fact, if any cell can produce this enzyme continuously, it can potentially live forever. Unfortunately for us, the only cells in our body that have managed to do this, other than the above mentioned egg and sperm cells, are cancer cells. If cells continue to replicate after the telomere is depleted, DNA contamination

can and does occur, this contamination usually results in a cancer cell, especially if TERT production is accidentally activated.



Telomeres seen at the tips of the chromosomes

The goal

To prevent ageing, or even slow it down, it is essential that your cells divide and replicate for the longest possible time. If all your healthy cells replicate forever, you are immortal. To do this, scientists are trying to figure out a way of ensuring that TERT production is optimised. This may seem like a simple enough task, but it is far more complicated than just injecting the enzyme into your body, each type of cell requires a different, but exceptionally precise quantity of TERT, at regular intervals. The only way to achieve this is to make sure that the cells are actually doing this on their own and thus, genetic modification seems to be the only way. To put it more simply, the goal of every single researcher who is trying to prevent ageing is just one thing, sustained rejuvenation.

The solution

As far as scientists can make it out, it is currently impossible to be immortal, there are just too many natural and artificial sources of harm that are continuously damaging your body. With the right techniques and proper care however, it is possible to live for at least 400-500 years or more. The average human lifespan in developed countries is about 70-80 years, with proper dietary care and exercise, this can be extended to a theoretical 130 years or more in ideal circumstances.

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Feeling old? Here's why.

An in-depth look into your body's ageing process
<http://goo.gl/VSEFu>

Print-a-limb

3D printers of the future will let you print your own limbs
<http://slate.me/wn4SZJ>

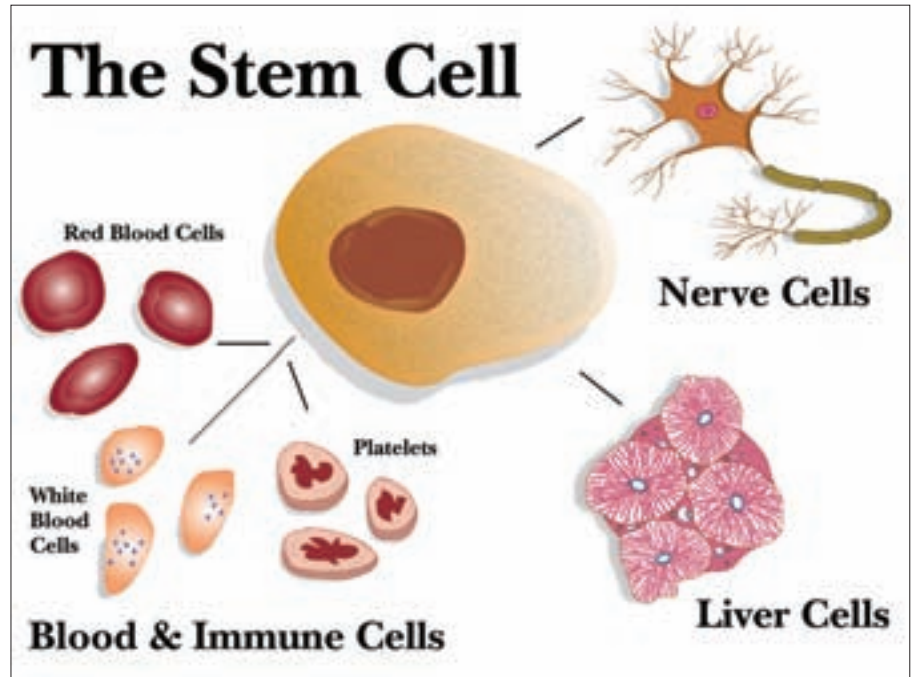
Nano skin

Synthetic skin has for long been produced in laboratories the world over. However, this skin, while it can provide protection, it cannot provide a sense of touch or pressure. Scientists at Stanford university succeeded in producing a type of synthetic skin that can do just that. Consisting of a series of carbon nano-springs, the material can stretch like normal skin and can detect changes in pressure and temperature

Small size = Long life?

Scientists have been experimenting on rats for a considerable amount of time and there is a competition under way for an award known as the "Methuselah Mouse prize" which includes a few million dollars as part of the award. The award will go to the creators of the "ageless" mouse. A lot of researchers are vying for this prize and in the course of this research work that is currently in progress, there are some interesting conclusions that researchers have come to.

It seems that smaller mice live for a relatively longer period than larger ones. It is an interesting observation and the only conclusion that the researchers could come to was that the smaller the mouse, the lower the chance of a failure (organ) at an older stage. The smaller mice were genetically-engineered ones, which lacked a gene required for producing sufficient IGF-1, a hormone that regulates size and is, incidentally, present in all



organisms including us humans. Basically, rats lacking the growth hormone, thyroid stimulating hormone (TSH) and prolactin were found to live longer than their normal brethren. Unfortunately, we can't just stop producing those hormones in our body as they are essential for our survival but it is possible to genetically produce smaller humans. The next time you are ribbed about being tiny, know that you will outlive the ribbers, so rejoice. Bear in mind though that it is not just about being tiny, you need to be tiny and perfect at the same time.

The advantage of being small, in terms of ageing, is statistically very slight (upto a maximum of 10 per cent increase in longevity), but it's a step in the right direction.

Caloric Restriction

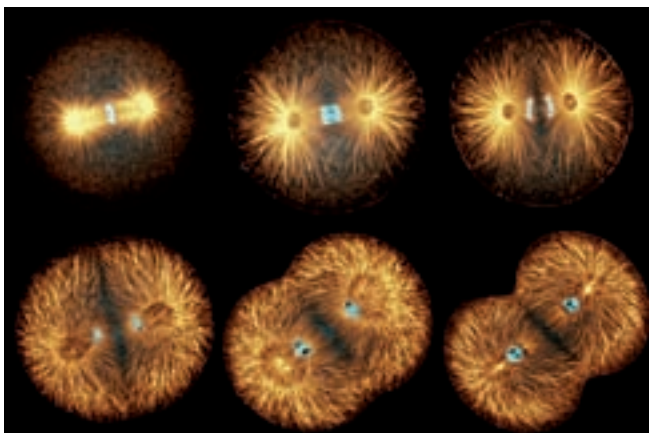
Another method to improve your life span is called Caloric Restriction. Research conducted on mice (again) shows that restricting their calorific

intake, while still keeping them well nourished, increased their lifespan by as much as 30 per cent. In humans, that translates to almost 25 years of extra life. Buddhist monks and Indian rishis have been advocating this way of life since time immemorial. Its time we started paying more attention to them.

Stem Cells

The weak spot in this quest for immortality is actually the human body itself. We can theoretically live as long as our brain can. With proper care and maintenance, that can easily be 400-500 years. As mentioned earlier, taking good care of your body helps, but it can only get you through to maybe a 120-130 years and you will be quite frail at that stage. Nowhere near what you would want for immortality. This is where stem cells come in. The magic of stem cells is that these cells can turn into any cell in your body. You might be wondering why this is such a big deal, but don't worry, all will be explained in due course.

Medical science has advanced far enough that you can keep a body on life support even with the absence of an essential organ such as a heart. So, as you grow older, if your organ fails, it is just a matter of replacing it. Torn blood vessels have



A beating heart

Doris Taylor of the university of Minnesota has grown a mouse heart from scratch. <http://bit.ly/x6VpaW>

Did you know?

170 billion RBCs and 10 billion WBCs are manufactured daily just to transfer oxygen and fight diseases

Tomorrow's Tech

Moon



This movie, released in 2009 is a chilling depiction of Lunar Industries' exploitation of cloning techniques to improve their profits and escape accountability. The movie follows Sam Rockwell as he spends his lonely three year stint on the moon, incommunicado, when a sudden accident reveals the company's dirty secret.


been grown back. The problem comes when you have to actually replace organs, donor organs can be attached to your body with ease but your body will do its very best to reject it.

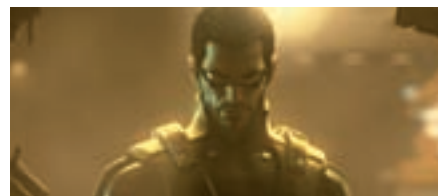
Every cell on your body has antigens on its surface, a pattern that is recognised by anti-bodies, if the anti-body cannot recognise the pattern, it tries to destroy the cell. Therefore, any alien body part, even if it is essential for your survival, will be destroyed by the anti-bodies, people with transplants have to spend their entire life taking suppressors.

Stem cells on the other hand are cells that have not yet decided what they want to be. If they can be programmed by a doctor to form a required organ, you can actually have your organs grown for you. In terms of immortality this means an inexhaustible source of fresh spare parts as and when you need them. The beauty of stem cells is that they can also be transformed into brain cells too, meaning that even your brain can be repaired and enhanced as well. Stem cells can be easily extracted from bone marrow and certain other areas of your body. They have to be treated with certain chemicals to bring them back to their initial embryonic stage and can then be "reprogrammed" later.

True immortality

In conclusion, if you just do what your parents and grandparents have always told you to do, eat good food, exercise and generally live a healthy life, you can almost double your effective life-span. However, with advancements in science, especially stem cell research, you can effectively grow new organs and replace your entire body as and when you need to.

Lead a sinful life, starve yourself, jump off cliffs, it won't really matter. Just wear a helmet and make sure your brain is intact. If someday scientists develop a system that can take snapshots of your brain, you won't even need a helmet. Kill yourself and they will just resurrect you from the last restore point! 



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The longest mission

Read about the longest running mission in space ever. The story of the Voyager I probe
<http://1.usa.gov/ijdXsv>

Space menu

A series of images showcasing the various foods that the average astronaut enjoys in space
<http://bit.ly/wtbxsF>

COSMIC LOGISTICS

What will space travel be like a decade from now? If we suddenly discover life on a distant planet, how will we get there? What are the logistics involved in such an endeavour?

Anirudh Regidi
anirudh.regidi@thinkdigit.com

Space is vast, the sheer scale of it is mind-boggling. Even within our solar system, distances have to be measured in millions of kilometres, anything smaller would just have too many zeroes in it. It isn't just the distance, the speeds you have to deal with are also incredibly large. The voyager space probe for example, travels at over 17km/s, which is still only a fraction of the speed of the Earth around the sun. This just a tenth of the speed at which the sun moves around the central axis of our galaxy. The problem is that even at that speed, it would still take us over 50 years just to get to the edge of the solar system; 70,000 to reach

our nearest star. How does one plan for such a trip? The spacecraft can manage fine on its own, but what about us humans? What will we eat? Can we even survive such a trip? Read on to find out.

The problem

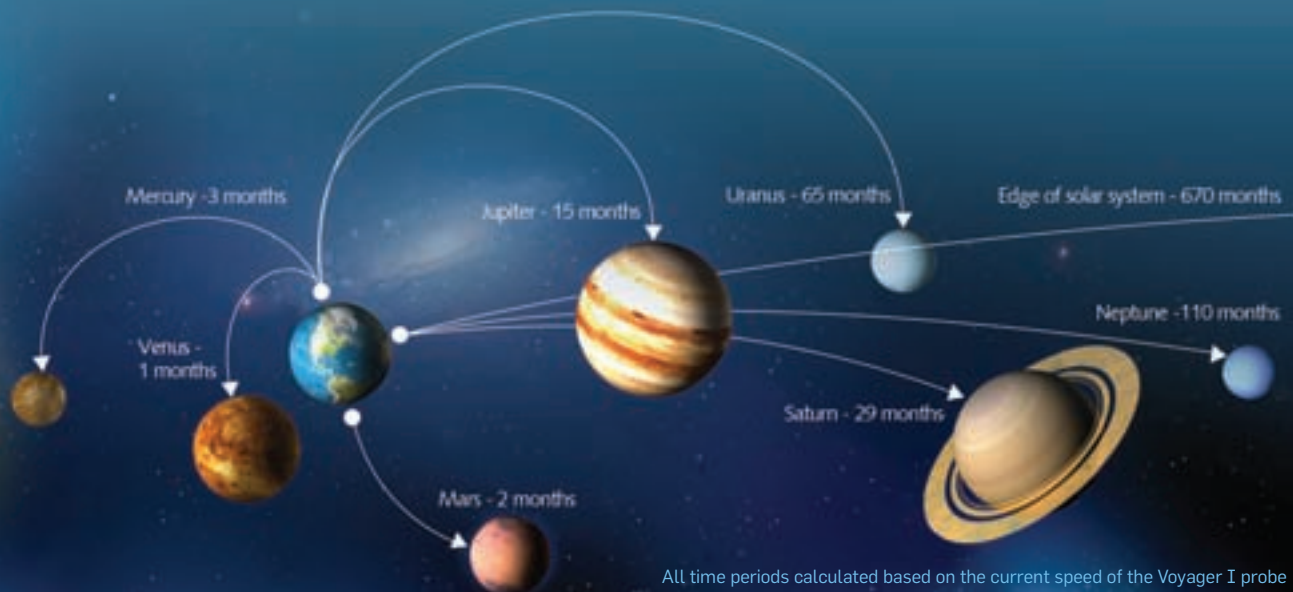
At present, dining in space is almost as good as enjoying a meal on Earth, once scientists discovered that all they had to do was make the food sticky and reduce the portion sizes, astronauts are being spoiled silly by the choice of food available. The Russians alone have a menu sporting over 300 items and enjoy everything from soup to mashed potatoes and roasted meat. The shelf life of the food products, depending on their type and how they are stored, ranges from a few months to many years.

The problem therefore is not what to eat, but rather where and how to store that food. An average meal packet is about 16 cubic inches in volume, an astronaut will

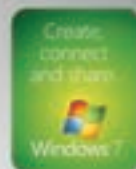


Astronauts can have almost all their favourite foods in space

need at least four such packets per meal, three meals a day, resulting in a little over a cubic metre of storage per year per astronaut. This does not even include the water that would be required, for drinking as well as re-hydration of the food. One cubic metre of food would weigh more than a tonne on the Earth and if you consider a trip lasting over 50 years, that would be more than 50 cubic metres of volume just for food alone. 200 tonnes of food for a crew of 4 onboard and as many cubic metres of storage.



All time periods calculated based on the current speed of the Voyager I probe



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A taste of space

The chinese government is commercialising the food that their "taikonauts" enjoy in space
<http://bit.ly/xBkA85>

A space odyssey

Arthur C. Clarke's most famous works. The book was written even before the launch of the moon missions but was acclaimed for being uncannily accurate

Even if we developed a ship that could travel at a tenth of the speed of light, it would still take us half a century to reach our nearest star. What if there is nothing there, and we want to come back? That would be a century of space travel, unless we can develop systems for hibernation, we would need to send a family or two on that trip. A family that might never see our solar system again, let alone the Earth. The need for vast quantities of supplies and a self-sufficient ship are paramount.

The solution

Scientists are still unsure how to manage these things at a cosmic scale. The ship will have to be built in space over a period spanning several years, perhaps decades. There has been talk of launching unmanned cargo ships in advance of the ship while it is being constructed. These robotic ships would head along the course that the ship intends



The venerable Voyager I probe

to take and would have plenty of time to pick up speed without expending much fuel by the utilisation of unconventional means such as solar-powered ion thrusters. This makes a lot of sense as a spacecraft with a large mass is much harder to get off the line. Arthur C. Clarke didn't stray very far from the truth when he spoke of replenishment bases on Europa and similar moons. Such stops would be absolutely essential

not just for refuelling, but for water supplies as well.

Food would have to be something that can be grown and replenished. The ship, self-sustaining in every possible way, a veritable Noah's ark with its own menagerie. Growing edible plants on the ship is completely out of the question, almost all food crops require sunlight and the spectrum of light provided by indoor lamps is simply not enough. The power required to drive "daylight" lamps required for such a job would be tremendous, not to mention the supply of water that would be required and, the spare lamps that will have to be carried. The only possible solution is freeze-dried foods that would have to be stored at cryogenic temperatures.

Once it leaves the solar system the crew will be subject to such loneliness as they would never have experienced before. Radio transmissions from the ship would not be able to reach the Earth, not just for lack of power, but also because the target would be so small that it would be almost impossible to hit as the distance keeps increasing. Even the space around would not have anything in it, nothing more than maybe a speck of dust per million cubic miles. The light from stars would provide no warmth and no power, it would be the same as trying to warm yourself by the light of the stars, only much colder, the ship, nothing more than an unmanageable hulk hurtling through space at more than 3,000 km/s; and despite that incredible speed, would still seem stationary with respect to its surroundings.

The only source of power in such a situation will have to be some sort of a sustained nuclear reaction. No other fuel will be compact or efficient enough to provide power for such a time period. In fact, nuclear power will be everything. The true heart of the ship, pumping its radioac-

tive life blood throughout the ship just to generate heat.

A monumental task


The ship so designed would have to be faster than any ship ever made, not to mention so large that it would probably end up like a miniature moon in itself.

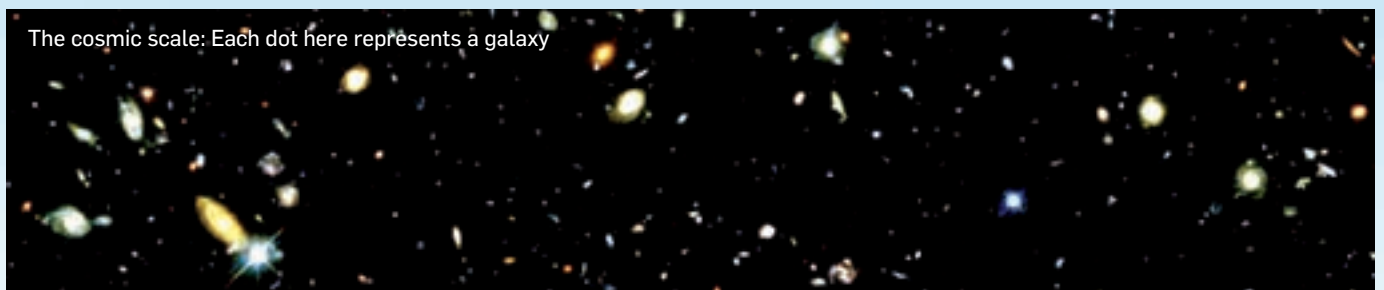


The glow of the future- A nuclear reactor

Unless there is a real possibility for hibernation, such a ship would be most impractical for any purpose other than some sort of emergency. With most of the current consumer electronics products lasting barely 3 years on average, a ship designed to function perfectly through a hundred years of the harshest conditions known to man will have to be something really extraordinary.

As it stands, such a ship is possible to construct, but at a cost that would be astronomical, considering that the ship is meant for space, that is understandable. Despite all this, the probability of failure during interstellar travel are extremely high.

Despite these challenges, once man sets his sight on inter-planetary travel, such ships would be absolutely essential. Behemoths, large enough to be miniature moons by themselves would end up as the taxis of the cosmos, ferrying passengers and cargo through the depths of space. 



The cosmic scale: Each dot here represents a galaxy

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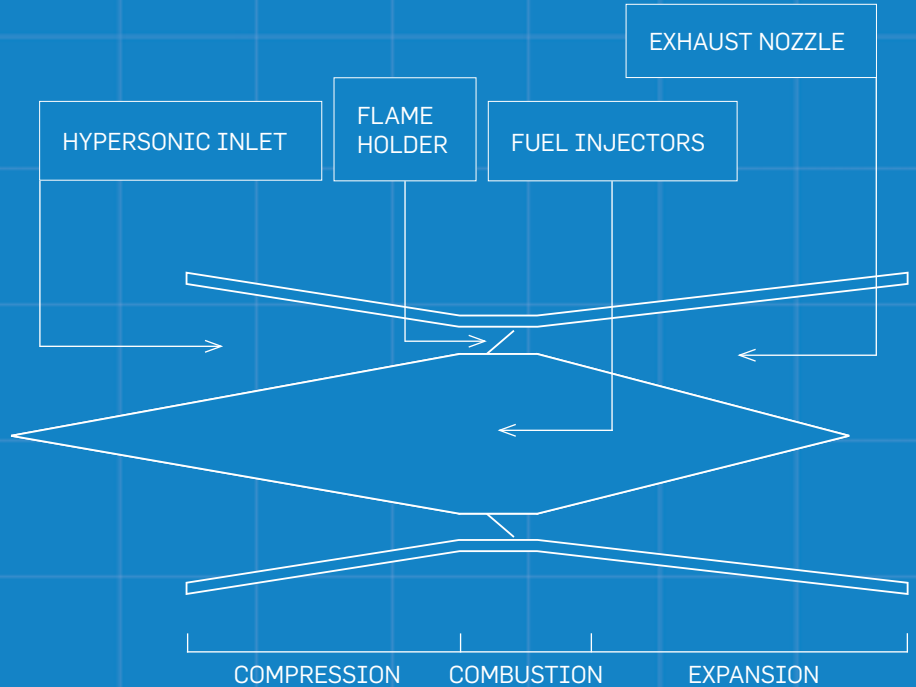
JET PROPULSION

An examination of the various types of jet engines currently in use throughout the world

TYPE	SCRAMJET
SPEED	Mach 3 - 25

The simplest form of a jet engine, a supersonic combustion ramjet (SCRAMJET) is also the fastest air-breathing engine in existence. They are hypersonic engines, i.e., they can travel at speeds of over Mach* 5. These engines are incapable of working at low speeds and are only efficient at a speed of around Mach 6. At low speeds (below Mach 2), the air speed is just not enough for efficient compression and hence, doesn't get hot enough to ignite the fuel.

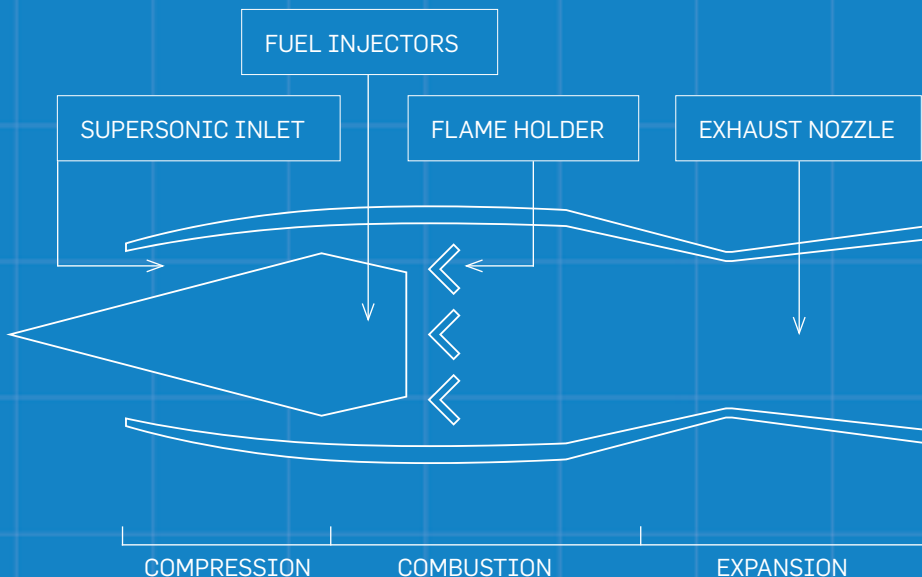
The way it functions is very simple, air enters through the inlet and gets compressed due to the nozzle design and its speed. This compression heats the air up and at the point of maximum compression, the fuel is injected into the stream. This fuel ignites, rapidly expands, and then hurtles out the exhaust at high speed, thus providing thrust.



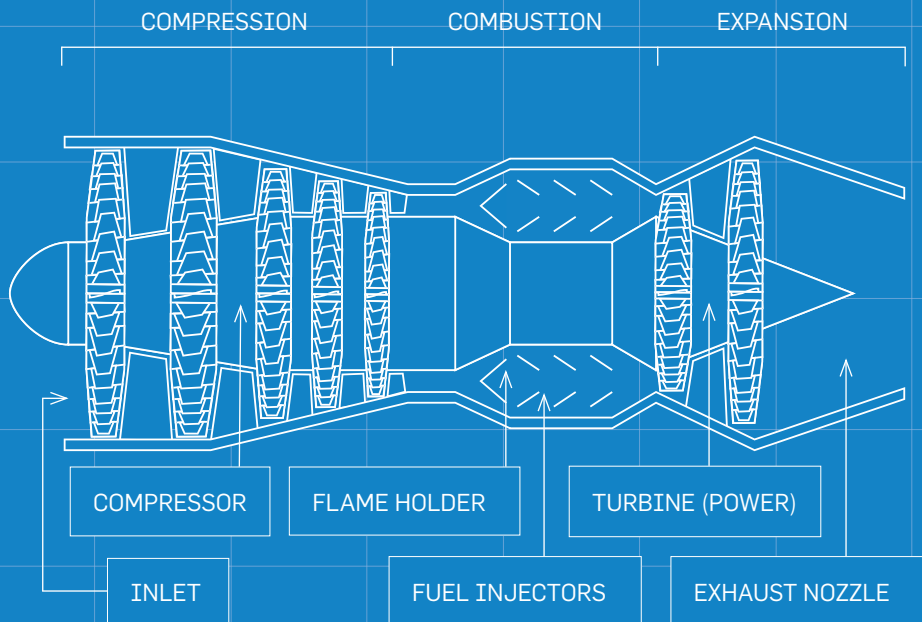
TYPE	RAMJET
SPEED	MACH 0.5 - 4

RAMJETs are low-speed variants of the SCRAMJET engine. By low-speed we mean "only" supersonic. The working of these engines is identical to the above mentioned SCRAMJET- the only difference being the inlet, which is designed to compress the air at comparatively high subsonic velocities.

These engines work most efficiently at speeds of around Mach 3 and are not capable of providing thrust below Mach 0.5 without extensive modifications. The SR-71 blackbird uses a combined TURBO-RAMJET engine to allow for subsonic flight as well as for a supersonic cruising speed of Mach 3+.



TYPE	TURBOJET
SPEED	MACH 0 - 3



The essential principle behind the functioning of this jet engine is the same as that of the RAMJET. The difference is in the design, where turbines have to do the job of compression. A compressor in the front of the engine sucks in air and compresses it. The air then enters the combustion zone. The hot air ignites the injected fuel and is ejected out the back when it expands. Before being ejected however, the air is passed over another turbine which uses the kinetic energy of the air to generate electricity as well as drive the compressor shaft, increasing efficiency.

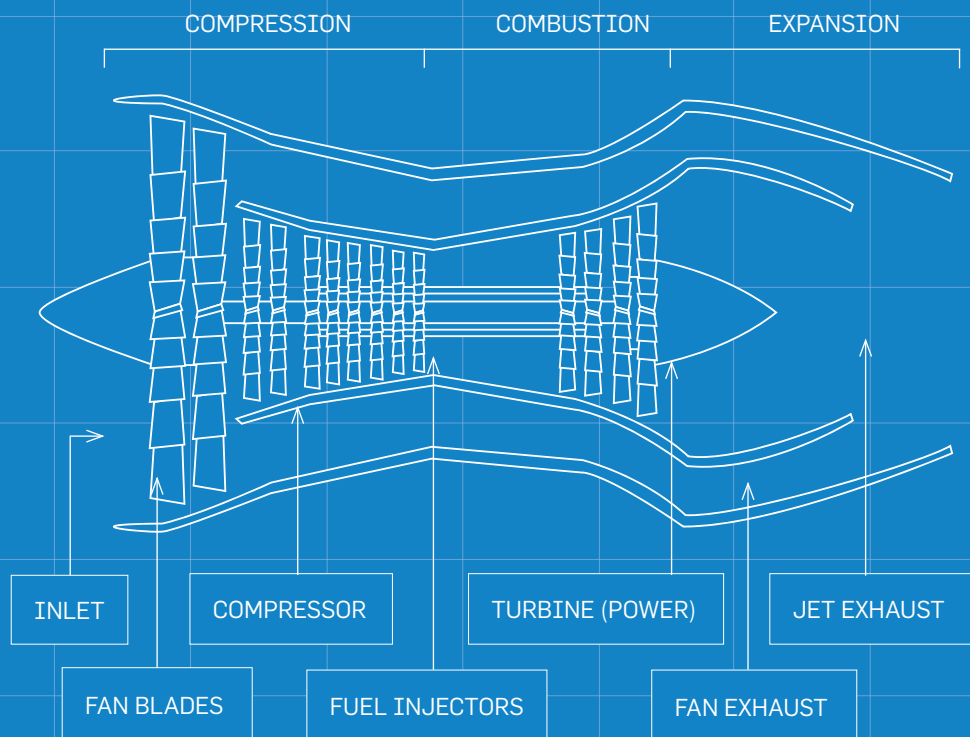
The advantage of this engine is that it can take an aircraft from a stand-still to a very high velocity. The only drawback is that the engine, though capable, is inefficient at low subsonic, and high supersonic speeds. The sweet spot for efficiency is around Mach 1 - 1.5 and is thus, very suitable for current military fighter aircraft.

TYPE	TURBOFAN
SPEED	MACH 0 - 1.5

This is the most common jet engine in the world and is present on almost every modern aircraft currently in existence. You can call it a cross between a propeller driven aircraft and a jet. In fact, a variant of this engine (called a turboshaft engine) is used in helicopters and even the US military's famous M1A1 Abrams tank.

It works the same way as a TURBOJET except for one key difference- there's a fan present in front of the compressor. The function of this fan is to efficiently provide thrust at low speeds. You can think of it as a propeller added to a TURBOJET to improve its efficiency at subsonic speeds. The fan sucks air into the compressor as well as into a ducted passage designed to accelerate the air. The air that goes into the compressor undergoes the same process of compression, combustion and expansion as the TURBOJET.

The advantage of this design is that at very low speeds, when the incoming air pressure is insufficient for jet propulsion, the fan functions as a propeller. At higher speeds, it augments the TURBOJET, improving its efficiency at that speed and thus, the engine's overall efficiency. The disadvantage of this design is that an aircraft won't be capable of efficient supersonic flight owing to the drag induced by the fan at such speeds. These specifications are sufficient for commercial flights though.



NOTES	All figures not to scale
	*Mach: The speed of an object relative to the speed of sound
	Jet engines are also known as "reaction engines" as the reaction to the flow of exiting gases provides the required thrust
NAME	ANIRUDH REGIDI
EMAIL ID	anirudh.regidi@thinkdigit.com

Crawling HD videos, undetected hard drives, need for support...

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I'm a big Digit fan since 5-6 years and I need your help. My PC configuration is:

- **Processor:** Intel P4 2.66 GHz
- **Motherboard:** Intel
- **RAM:** 512 MB DDR2

When I play an HD movie or videos, they play very slowly and many a times as slow as a steam rail, so I can't enjoy HD videos and game trailers from your DVD.

I tried many players such as VLC, Window Media Player, GOM Player but none of these work. Can you suggest any player which will run HD videos on my PC.

Will adding one more 512MB DDR2 RAM in my system resolve this problem?

Anshul Gehlot

Your system specs are not capable of playing HD videos. You'll need a RAM upgrade and a dedicated GPU to fully enjoy HD videos. Any of the latest ₹3,000-₹5,000 GPUs will do the trick for videos, but if you also want to game, you'll need to spend more. HD playback is dependent on hardware as well as the codec used. CoreAVC is known to utilise your hardware properly for HD playback; however, you won't be able to perform others task while this is going on.



This is my second email to you after 2008. I'm in deep trouble. I bought a HP Pavilion DV6 6115TX laptop. The problem is that whenever I try to switch my graphics mode from dynamic to fixed in my InsydeH2O BIOS setting, I can't play any games. *Crysis2* gives 1-3 fps, and when I switch my mode to dynamic in BIOS, then I can play games even at high

setting and get up to 90-100 fps; even *Crysis 2* gives 78 fps!!(medium to high settings). In my Catalyst Control Centre I can't seem to find Display setting (both, fix and dynamic mode). It shows that it's currently using Intel display. I tried to contact HP and other sites to no avail. If you could help me out it would be helpful. I have no problem playing in dynamic mode, but why's it not able to play in fix mode?

One more thing. I've been given Altec Lancing Dolby Digital Surround Sound. My question is that is it better than Beats Audio or are they more or less the same?

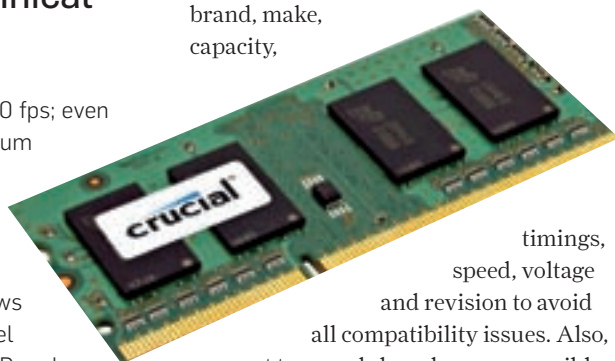
And I have a 4 GB ram of Micron Technology. My computer states that I can upgrade it to 16 GB. Please can you suggest which company memory module I should buy? My memory is 4GB 9-9-9-24 latency and runs at 1.5V. Kindly help me with my queries.

Dipan Talukdar

The information that we came across threw us off. The 6400M web page on the AMD web site states that it supports AMD's Switchable Graphics Technology whereas on the homepage of AMD's Switchable Graphics Technology, the 6400M series isn't listed amongst the supported hardware. It would help to note that just possessing the hardware doesn't entitle support for the technology; it must also be enabled by the system manufacturer. You'll need to get in touch with a service engineer at HP in order to resolve this problem.

To avoid compatibility issues, try to find RAM modules with the exact same memory chips and the models built for OEMs are often easily available. If not,

you may use modules with the same clock timings and speed. The G.Skill 1x4 GB (9-9-9-24) (Find it here: <http://bit.ly/yfo4No>) should get the job done in your case. It's hard to tell whether you're talking about your laptop or desktop. However, the rules are the same. Get a module of the same brand, make, capacity,



timings, speed, voltage and revision to avoid all compatibility issues. Also, get two modules whenever possible to enable dual-channel configuration.

My desktop has the following config:

- **Motherboard:** ASUS M4N68T M LE
- **RAM:** 2 GB
- **Storage:** Western Digital 500GB Caviar Blue HDD
- **DVD writer:** LG
- **SMPS:** Mercury 450W

Last week, it refused to turn on. We suspected a problem with SMPS, replaced it with another 450W one, and everything looked fine. We gave the old SMPS for repair.


Again this week, the computer doesn't turn on, which might indicate that again the SMPS might be malfunctioning.

Is this because a 450W SMPS isn't enough to supply power? Or is there anything else I need to check?

Teja Darla


Do you have a GPU in your computer? If yes, then there might be an issue regarding inadequate wattage but if you don't have a GPU then 450 watts is more than enough to handle your configuration. The problem often lies in refurbished SMPS. Local repair shops tend to use low-end components to replace the blown out ones which then tend to easily get spoilt again. Spend a little more and get an FSP SAGA II SMPS for your system and always invest in a good spike-guard. Also, if the electrical wiring at your place is prone to spikes

and/or fluctuations then that spells trouble for all your electrical hardware.

 I'm facing a problem with installing the Linux Mint 12 OS which was included in the January issue's DVD.


When I mount the ISO file, my K7 anti-virus blocks access to the file. When I install it after disabling anti-virus, it just doesn't start and gives an error in the console commands (in the installation where the final steps of the installation takes place). This is despite me downloading from the official site. Please help.

Udit Yadu


 Just disabling your anti-virus or enabling game mode doesn't get the job done most of the time. Malevolent programs can do the same and hence, anti-viruses have their fall-back mechanisms to counter the actions of such programs. Unfortunately, false-positives lead the anti-viruses to flag down proper programs as well and this seems to be your case. Burn the image file onto a




DVD or use the Universal USB Installer from www.pendrivelinux.com to make a bootable USB device. Boot from the DVD/USB device and begin your installation.

 I've been owning an HCL PC since 18 months. My system specs are Pentium dual-core processor (E5400, 2.70 GHZ), Windows 7 Ultimate 32-bit operating system and 2GB RAM. I've been experiencing some abnormalities on my system. My screen blinks suddenly and the dialog box shows "display driver stopped working and has been recovered". This happens when I play some games and also when carrying out some simple tasks. When I play *Warcraft 3*, a blue screen error occurs and my system restarts and now it doesn't detects some of my external storage devices and some of my files are also not getting copied to external storage devices. Also some games like *Return to Castle Wolfenstein* which used to work with my system don't work now. I use Glary Utilities periodically. Please give me solutions of these problems as well as suggestions on how to improve my system's performance.

Sharique Maaz

 This display error occurs either when the GPU takes up too much time to display the graphics onto the monitor, or when the CPU is too worked up by having way too many applications running in the background or even due to faulty drivers. The frequent BSODs will eventually corrupt your operating system files and the files on your hard drive too. Start off by getting the latest video drivers for your system. Get rid of unwanted applications, use *Process Explorer* to figure out which all background applications are running and uninstall unnecessary ones. Also, use



RealTemp or *Speccy* to see if your computer temperatures are well within the limit. If not, you'll have to get a tube of a good thermal compound and re-apply. This should fix most problems. If your operating system files have already been corrupted, then a re-install is in order. 



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Scientists revive ancient flower

Russian scientists revived a flower which had been frozen for 30,000 years in Siberia
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Fastest winds ever

NASA's Chandra X-ray Observatory clocked a wind speed of 20 million mph off a black hole which was sucking in the gasses of a nearby star

Motion activated lights

Eliminate the need for switches around the house with this nifty little DIY

Mithun Mohandas
readersletters@thinkdigit.com

Ever you thought about setting up motion sensors around your home? Imagine all the ugly switchboards disappear, only to be replaced by clean walls. It's one step closer to having a minimalistic theme for your home decor.

The circuit we have this time uses an infrared receiver - transmitter combination to create an invisible line of IR light which when crossed will trigger the light bulb.

Principle

The transmitter is designed for operation over a few meters while not being affected by ambient light. The IR sensor used here is the SFH5110, which has a carrier

frequency of 36 kHz. The IR LED should be capable of switching fast enough to pulsate at 36kHz. This beam is incident on the sensor. When the beam is crossed the receiver triggers the relay which is the switch for whatever you wish to turn on.

The Transmitter

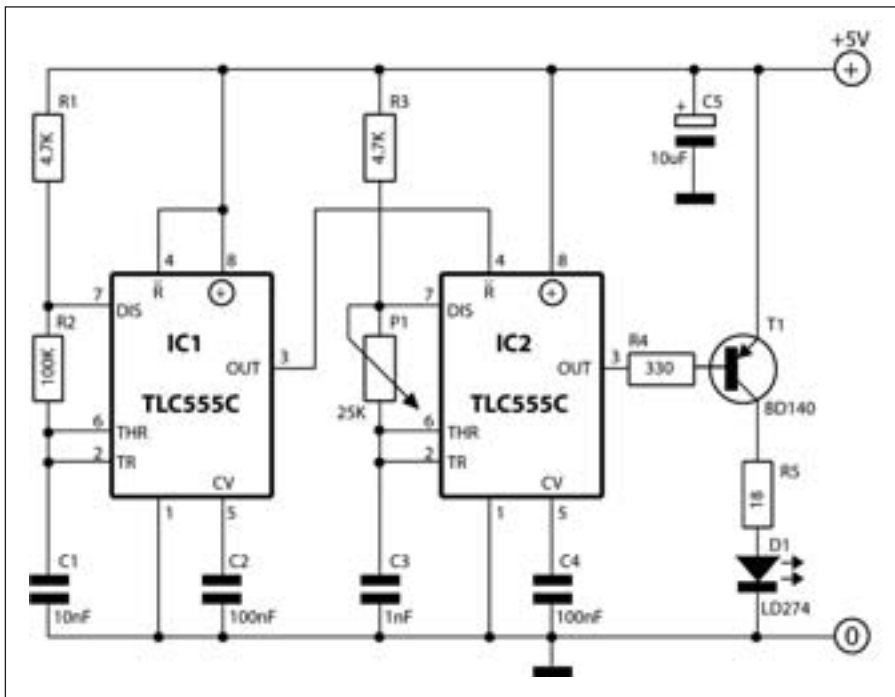
This consists of 2x IC555 timers. We are using the TLC555 as opposed to the NE555 because the NE555 requires a minimum of 4.5 volts whereas the TLC555 is capable of running at 2 volts. Use a voltage regulator (7805) to provide the input supply(+5V). The 555s are configured as Astable Multivibrators or oscillators. The 555 in this configuration follows the equation given at the bottom to generate the pulse signal. The first 555 produces a 300 Hz output to modulate the output of the second 555 which produces the 36kHz signal for the IR LED.

Here R1(taken in ohms) is connected between pins 7 and +5V, R2(taken in ohms) is connected between pins 7 and 6, C1(taken in farads) is connected between

Components list

Parts	Value	Particulars
R1, R3	4.7 K Ω	Resistor
R2	100 K Ω	Resistor
R4	330 Ω	Resistor
R5	18 Ω	Resistor
R6	100 Ω	Resistor
R7, R9	10 K Ω	Resistor
R8	22 K Ω	Resistor
R10	—	Resistor
P1	25 K Ω	Trimmer
C1	10 nF	Polyester Capacitor
C2, C4, C8	100 nF	Polyester Capacitor
C3	1 nF	Polyester Capacitor
C5	10 uF	Electrolytic Capacitor
C6, C9	47 uF	Electrolytic Capacitor
C7	1 uF	Electrolytic Capacitor
IC1, IC2, IC3	TLC555	Timer IC
IC4	MC14043B	Quad R-S Latch
D1	LD274	IR LED
D2	BAT85	Schottky Barrier Diode
D3	1N4148	Diode
T1	BD140	PNP Transistor
T2	BC547	NPN Transistor
IRS	SFH5110	IR Receiver (36kHz)
Relay	—	12V SPST Relay
X	—	AC Light Bulb

2 and ground. f gives the frequency of the output pin 3 in Hertz. For 300Hz we require R1 to be 4.7K, R2 to be about 100-237K and C1 to be 10nF. The output of the first 555(IC1) from pin 3 is fed to pin 4 of the second 555(IC2). Pin 4 is a reset pin which when activated switches the output off. So IC1 switches IC2 on/off about 300 times a second. For IC2, we have R3 at 4.7K, P1 adjusted to 21.6K and C3 at 1nF. The output of IC2 is, hence, a 36kHz signal modulated by 300Hz. Adjust the trimmer preset, P1, to achieve the right frequency. This output is fed to a switching transistor T1(BD140) which turns the IR LED on and off. If you have any problems with using the BD140 which is a PNP transistor, you may replace it with a BD139 which is an NPN transistor. While doing so remember to connect the emitter to the ground and connect the load between



Transmitter circuit diagram

$$f = \frac{1.4}{(R1 + 2R2) \times C1}$$

IC555 astable mode equation

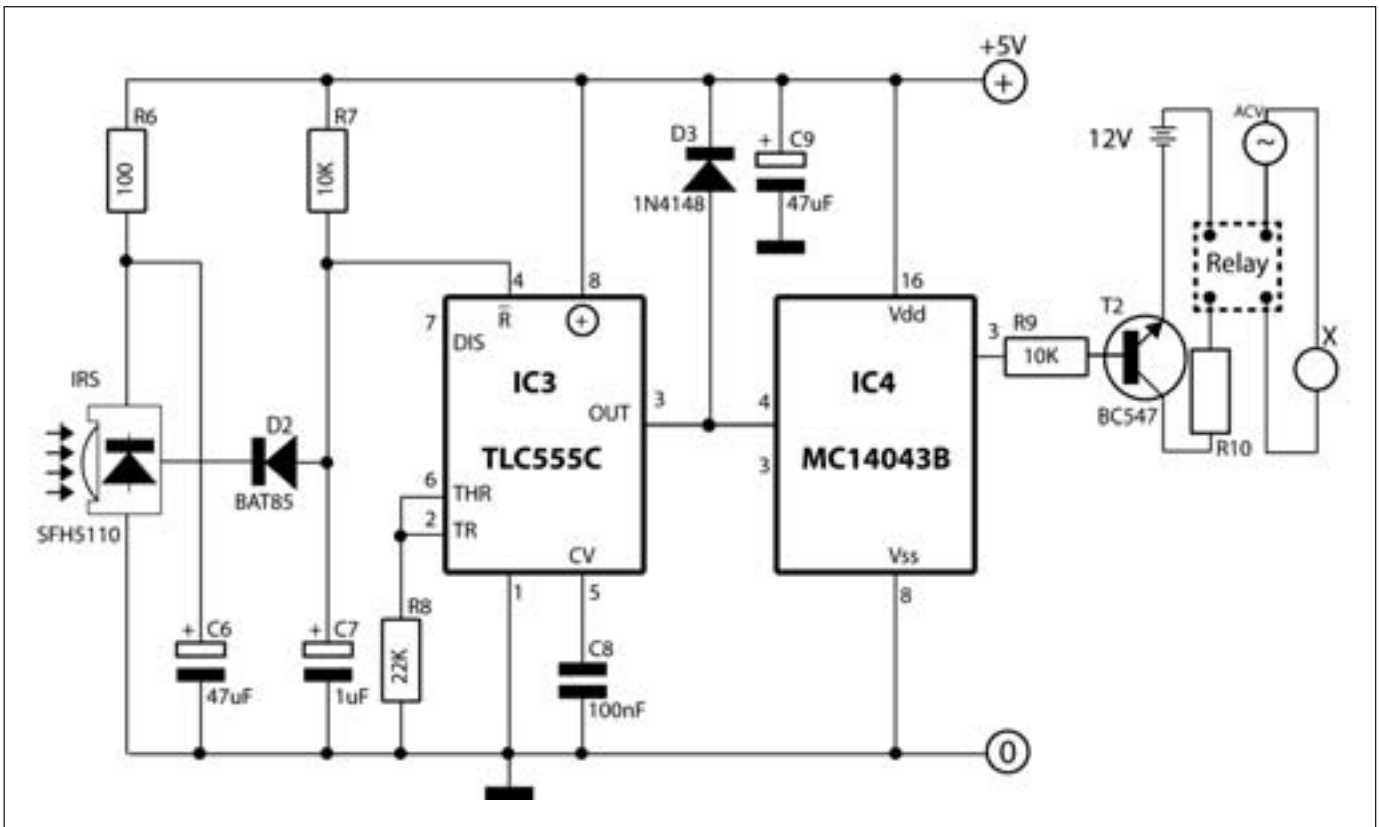
Neutrinos faster than light?

Recently scientists announced that Neutrinos were faster than light. Seems it might have been a mistake <http://bit.ly/xDeNX6>

Yet another planet!

NASA's Hubble space telescope recently spotted another water bearing planet 40 light years away <http://bit.ly/wtdNrU>

DIY



Receiver circuit diagram

collector and the +5V. The IR LED draws power via the resistor R5, so if the distance between the receiver and transmitter is less, this can be reduced further to reduce the power consumption and allows the battery to last longer. Ensure the values of the components are very close to the mentioned values for the transmitter to emit the right frequency, this is of utmost importance.

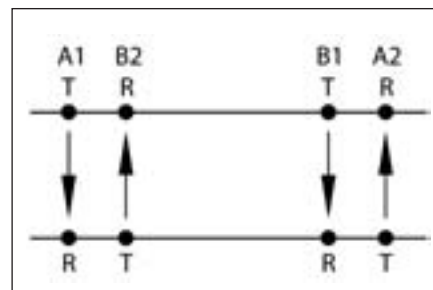
The Receiver

The receiver uses another IC555 which obtains an input from the IR sensor (SFH5110) onto pin 4. You may substitute that with any of the following; SFH506-36, TFM5360, TSOP1736, PIC12043S. Remember to carry P1 to generate the appropriate carrier frequency for the LED transmitter. When a signal of 36kHz is incident on the sensor, the sensor gives low digital output and when there is no signal of 36kHz, the sensor goes high. The diode D2 and capacitor C7 together eliminate the 300Hz modulation of the signal. So the sensor, when in a high state, sets the 555 to provide a high output which in turn switches

the latch in IC4. The latch then sets the transistor T2(BC547) on. The BC547 acts as a switch for the relay which requires 12V to run on. The latch cannot provide a high voltage output which is why we use the transistor. The relay finally turns on your lights.

However, we have only turned on the lights so far. Now we need to turn them off. For this we have another receiver, except this time, the output of the 555 in the receiver is connected to pin 3 of the latch instead of pin 4. Pin 3 is the reset switch which will turn the relay off, thereby switching off your light.

Have 4 receiver transmitter combinations in the following arrangement to automate your lights completely.



Typical arrangement of sensors

A1 and B1 are connected to the same latch. A1 being connected to the Reset pin and B1 connected to the Set pin. A2 and B2 are also connected to another latch. A2 being Reset and B2 being the Set. When a person crosses B2, the lights turn on and switch off if either A1 or A2 are crossed. The same applies to people coming in from the other side.

This circuit though demonstrated for lights can be applied to any switch in the house. If you have pets in the house, then there will be a lot of accidental on/off cycles, so it'll be better if the transmitter/receiver pair are located at a height of 3 feet from the ground. Have fun and do write in. [\[1\]](#)

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Unraveling the Linux kernel

A look at the Linux kernel internals, the versioning system and how it affects us as end-users

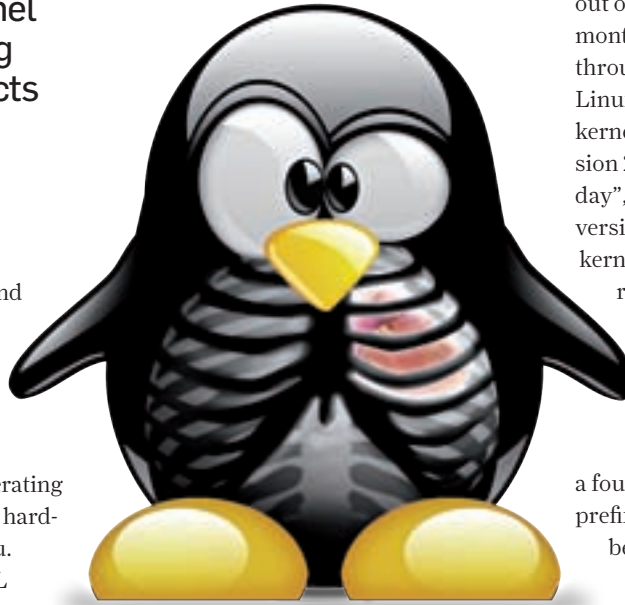
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Linux kernel is the central and most important part of the Linux operating system, not to mention the component that has given the system its name. In the most simplest of terms, a kernel is that part of the operating system which sits directly above the hardware doing all the dirty work for you. The kernel along with the GNU/GPL Software Suite is what gives us the operating system as we know today.

Supposed to be the next best thing since sliced bread, it all started when Linus Torvalds, a student at the University of Helsinki got the idea of making a task switcher with a terminal driver for an Intel 80386. After months of work, he came up with something that loosely resembled an operating system but was limited in application to a 386. Now this was a time when Usenet groups were still considered to be hip. Here he posted the now famous message, "I'm doing a (free) operating system (just a hobby, won't be big and professional like gnu) for 386 (486) AT clones. This has been brewing since april...(sic)" and the developers flocked around like flies on dung. The rest, as they say, is history.

The kernel contains all the juiciest parts that you'd need to run an operating system – a process scheduler, a memory management unit, file system, device drivers, low-level drivers (for CPU, MMU and other onboard devices), inter-process communication system, I/O scheduler, I/O system and network services. As you can see, even drivers are a part of the kernel (which in case of Windows, most of them are not a part of the kernel and run in the user space). Infact fifty per cent of all the lines in the kernel source code are drivers,



thirty per cent are architecture-specific stuff. The processor, network and the core kernel code is only five per cent of the overall code. According to one calculation made by the current maintainer of the stable branch, 4,945 lines were added, 2,006 were removed and 1,702 lines were modified per day. As of 2012, the Linux 3.2 release had 14,998,651 lines of code.

This brings us to the current development model of the kernel. Linus Torvalds releases the versions which contain the main, generic branch of development, called the "vanilla" or "mainline" kernels. This branch is released as a new version after Linus assimilates the changes made by other developers in the code and after a round of pre-release bug fixes.


In the current lay of the land, the vanilla branch is not the "stable" branch, instead it incorporates all the changes including the bug and security fixes. For those who don't want to experiment with the cutting-edge version, there is the "long-term stable" branch which just adds the required bug and security fixes and not any changes to the kernel.

Since 2004, the release process changed and new kernels started coming

out on a regular schedule every 2-3 months, numbered 2.6.0, 2.6.1, right through to 2.6.39. After this, to mark Linux kernel's 20th anniversary the kernel number was bumped up from version 2.6 to 3.0. "Gone are the 2.6.<bignum> day", announced Linus. The current stable version is 3.2.7, while the latest mainline kernel is 3.3-rc4. The first two numbers

represent major revisions in the code while the last number represents bug, security fix increments. Vastly different from the 2.6.x versioning system where x was incremented with each update and a fourth number was used for security prefixes. The old even-odd version numbering system is no longer in use.

Do these numbers affect you in any way? Well, most of the time, no. Most of the additions are to the "drivers" part of the code, while the updates to the architecture and the core, though substantial, are not well tested. Therefore, you should use the mainline kernel if you want to run the latest toaster that you bought yesterday or the fastest processor available on the planet. The distro that you are using may ship the "vanilla" and/or "stable" kernels. However, several Linux distribution vendors (such as Red Hat and Debian) maintain another set of Linux kernel branches which are integrated into their products. These are by and large updated at a slower pace compared to the "vanilla" branch, and they usually include all fixes from the relevant "stable" branch.

Which kernel are you using? You can find out the version you are using by entering `uname -r` in your terminal. How to update? Most of the distributions nowadays come with package managers and update utilities. So as soon as your distro's repositories get the image of the latest kernel, the changes will be pushed to your system. You can also use the release candidate, but you'll have to compile it yourself. If you're unsure how to go about it, instructions for doing that are at <http://goo.gl/NhKJu> and <http://goo.gl/Pv4zc>. 

WORDPRESS

We take a close look at WordPress, the blogging world's most trusted publishing tool and try to unlock some of its hidden mysteries to help you blog better and smarter. Please note that all the WordPress plug-ins mentioned here can be found in the plug-ins directory at <http://www.wordpress.org>



WordPress..... 17
Shortcuts to everything 20

Tips & Tricks has its own page numbers, and does not follow the rest of the magazine's page numbers. This is done to ensure that you can cut out and save T&T in a separate folder for later reference.

Automatically backup to Dropbox

When you start blogging regularly and accumulate a fair number of posts and followers, it's advisable to take regular backups of your blogging software and post database to help you on a rainy day. Usually, if your blog is hosted on a reputed web host, they always schedule regular backups; but getting a copy of your site's latest backup from the web host can be a cumbersome and time-consuming process. This has an adverse effect on traffic and followers.

To avoid this doomsday scenario, it's good practice to take manual backups of your blog from time to time. And what better way than to automate the task? This is where Dropbox comes in, if you didn't already know, it is a leading cloud storage and file sharing service.

Go to WordPress.org and search for the "WordPress Backup To Dropbox" plug-in. Download and install the plug-in in your WordPress installation directory.

After installation, check under Settings > Backup to Dropbox to setup the backup process. At one stage, the plug-in asks to authorise itself with Dropbox. In a new window that pops up you must authenticate this plug-in to access your Dropbox account (you need to have a registered Dropbox account at this stage). After you grant access, the plug-in continues to set up your WordPress installation's backup. The plug-in uses OAuth, so don't worry, your Dropbox login details are safe.

Just choose a day, time and the frequency of backup to be performed, and that's it. The



Jetpack is one powerful plug-in which comes with extra plug-ins

plug-in ensures your web site's files and an SQL dump of its database is backed up to Dropbox on the specified time and date. You can set where you want your backup stored within Dropbox and on your server as well as choose what files or directories, if any, you wish to exclude from the backup. For more details, checkout the web site: <http://wpb2d.com>

Get WordPress.com features for your custom blog

If you've ever opened a WordPress.com account, you know of the kind of professional, pre-loaded settings and services it comes with compared

to the vanilla WordPress.org CMS installed on your blog. For this, you need to download and install Jetpack by WordPress.com from the plug-in directory. And trust us, you'll be glad you installed this particular plug-in.

So what does Jetpack come with? A whole lot of features that would otherwise require a multitude of plug-ins from the WordPress.org directory. And some of Jetpack's features are exclusive and, difficult to find elsewhere. Here's what it does.

Jetpack gives you the ability to mark up your posts with the markup language- perfect for complex mathematical equations and other über-geekery,

which you otherwise can't implement within your blog posts. It gives you the added options of extra sidebar widgets for Twitter and RSS links. Jetpack even takes away the hassle of broadcasting your blog's content to the outside world, implementing a one-click approach to submitting your latest posts to search engines and other services in real-time.

This plug-in also comes with the most basic features- social sharing buttons next to every post and page- to advanced features like real-time stats and analytics of visitors stopping by your web site. Embedding videos from YouTube, Vimeo and others sites you can get a unique short



Wordpress to Dropbox is a good off-site backup solution

URL for each and every blog post through Jetpack's range of tweaks for your blog. Do give it a try: <http://jetpack.me>.

Effectively protect your blog from spam attacks

If there's one thing that isn't in short supply on the web then it's most definitely spam hitting countless web servers, every single second. This bombardment is almost endless. With such overwhelming odds against you, how do you protect your WordPress blog from becoming cannon fodder to the legions of spammers out there?

Enter Akismet. It claims to be the most powerful solution for combatting spam on all web sites and blogs that are powered by WordPress' software. And it does live up to its word. All you have to do to

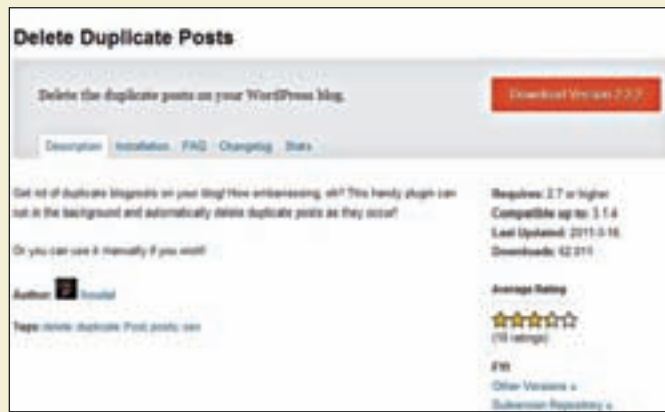


Akismet is the big, bad spam fighter for blogs

get it up and running is download and install the Akismet plug-in from the WordPress.org directory and activate the plug-in by either purchasing a unique API key or by creating a WordPress.com blog and getting the key from its Akismet settings page.

Delete duplicate posts on blog

Having duplicate posts on your up and coming blog can be quite embarrassing and a huge blow to its growing reputation. Of course, in the haste of populating your blog (espe-



It's embarrassing to have duplicate posts on any web site

cially, with multiple authors), the chances of duplicate posts sneaking into the mix are considerably higher. In this scenario, wouldn't it be nice to have a constant safeguard which prevents duplicate posts from occurring in the first place?

Check out the Delete Duplicate Posts plug-in at in WordPress.org's plug-in directory. Download, install and activate it. Once done, go to your blog's Tools menu and configure the Delete Duplicate Posts plug-in. It can actively kill duplicate posts as and when they're created

on the blog, or you can find and delete them manually.

Protect against brute force attacks

One of the most basic points of securing your web site is to hide all traces of its CMS from the outside world - it means, no proclamations in footers, custom login URLs, etc. In the case of a WordPress blog, its footer gives away the CMS' description for everyone to see. This makes life easier for hackers who are trying to get behind your web site's security wall.

In such cases, Login LockDown is a nifty little security plug-in for WordPress blogs. Login LockDown records the IP address and timestamp of every failed login attempt. If more than a certain number of attempts are detected within a short period of time from the same IP range, then the login function is disabled for all requests from that range. This helps to prevent brute force password discovery.

Currently the plug-in defaults to a one-hour lock out of an IP block after three failed login attempts within five minutes. This can be modified via the Options panel. Administrators can release locked out IP ranges manually from the panel. Unfortunately, active development of this plug-in is stalled for the moment and you can only use this with slightly older WordPress installations up to version 2.8.6.

Insert Google ads without messing with your blog's code:

After starting a blog for fun, it's nice to be able to monetise with Google's AdSense ad networking program. You don't have to do a thing; just submit your blog for Google's approval. Once you're invited for the AdSense program, all you need is your unique identification number to get things started.

With the AdSense Integrator plug-in, you can do away with the headache of editing and messing up your blog's code to insert Google AdSense ads. All you need to do is copy-paste the AdSense code into a text field inside the plug-in and select an area where you want the advert to appear- top of the blog, right-side bar, left bar, bottom, etc. Just give it a try, you'll love it. <http://www.myWordPressplug-in.com/adsense-integrator>

Migrate from WordPress.com to a WordPress.org blog:

WordPress.com is a free third-party blog hosting service, where customizing your blog's look and feel (after a certain point) requires paid purchases. For example, if you want to use a custom domain name (www.yourblog.com) instead of WordPress.com's standard www.yourblog.WordPress.com address, you'll have to purchase the feature from WordPress.



Enabling Ad-sense on your blog



Exporting your blog

com. Same goes for additional themes, CSS edits, etc.

With a self-hosted WordPress.org blog, you get greater control over each and every aspect of your blog. Obviously, this also means you have the added responsibility of looking after your web site (something that WordPress.com does for blogs on your behalf) on a regular basis.

1) Before starting the migration process, get yourself a good online web host and register a custom domain name. Check that your new online web host provides a minimum of PHP 4.3, MySQL

Tools section of your WordPress.com blog and click on Export. On the resulting screen you're asked to tick radio buttons on the fields you'd like to export from your current WordPress.com blog - stuff like categories, posts, pages, etc. Make sure you click on all radio

buttons to ensure everything from your WordPress.com blog is copied over to your recently created WordPress.org blog. Download the resulting WXR or WordPress eXtended RSS file on to your computer.

4) The last step in this process is to head over to the control panel of your WordPress.org blog and click on the Tools menu item. Hit on import and upload the WXR file you downloaded from your WordPress.com blog. Depending on the size of this file and your connection speed, the time taken



Importing into WordPress.org

4.0 and the mod_rewrite Apache module.

2) Upload the latest installation of WordPress.org on to your web host- follow WordPress's "Famous 5-Minute Installa" (<http://bit.ly/zZB29Z>)- and leave the default extracted and installed files untouched.

3) The next step is to go to the

to upload it on to your new blog may vary. If all goes well, you're done migrating your blog from one place to another.

Burn your site feeds on Feedburner

When we say burn, we don't mean it literally, of course. But yeah, one of the few things you

should do immediately after setting up a spiffy new blog is to submit it at Feedburner, a Google service that only helps manage your web feeds - nothing else - and it does so better than any other software or web tool we know of. And yes, all for free, of course, as we've come to expect from Google.

This is how you go about submitting your blog's feed to Feedburner. First of all, you need to have a Feedburner account. Since Google bought Feedburner back in 2007, you can login in with your most-used Gmail account credentials is allowed (unless you want to create a separate Google login just for your blog's feed management service).

After log into Feedburner, choose what type of blog software you use - is it a self-hosted WordPress blog? A WordPress.com blog? Or a Blogger web site? Clicking on the relevant radio button leads to the next step.

Here you enter your blog feed's URL into one of the two fields. If you don't know where your blog's RSS feed is located, don't worry. Just enter your blog's URL and Feedburner will auto-detect the RSS feed's location. The final step is to choose a unique feeds.feedburner.com/your-feed URL to locate your feed online.

That's it. Once that is done, you can now track your RSS feed subscription data through Feedburner. Not only this, you can also easily offer email subscription for your feed through a feedburner plugin installed in your WordPress blog. Feedburner also offers in-depth analytics and AdSense integration. The whole thing looks

more professional than WordPress' own feed engine.

Highlight keywords in search results

How many times have you performed a keyword search in a blog's search field only to see a long list of matching posts to sift through without any visual clues? Not many, we're sure. So when you run a blog with a lot of posts and a sizable fan following, do a favour on visitors coming to your blog and searching for specific posts or words across your blog.

The least you can do is highlight the search keyword in the search result page for readers to easily find what they're looking for. Here's how:

- 1) Open your WordPress installation's search.php file and search for the following code: `<?php the_title(); ?>`
- 2) Replace it with: `<?php echo $title; ?>`
- 3) And finally paste the following chunk of code before the title code we just replaced above: `<?php $title = get_the_title(); $keys= explode(" ", $title); $title = preg_replace('/(.' . implode('|', $keys) . ')/iu', '<strong class="search-excerpt">\O', $title); ?>`

The last step is to tweak your blog's CSS file search-excerpt and add styling for the search highlighted keyword.



Notice the highlighted words

SHORTCUTS TO EVERYTHING



Windows 7

[Win] + [Home]	Clear all but the active window
[Win] + [Space]	Make windows transparent so you can see through to the desktop
[Win] + [Up arrow]	Maximise the active window
[Win] + [Down arrow]	Minimise the window/Restore the window if it's maximised
[Shift] + [Win] + [Up arrow]	Maximise the active window vertically
[Win] + [Down arrow]	Minimise the window/Restore the window if it's maximised
[Win]+[Left/Right arrows]	Dock the window to each side of the monitor
[Shift] + [Win] + [Left/Right arrows]	Move the window to the monitor on the left or right
Drag window to the top	Maximise
Drag window left/right	Dock the window to fill half of the screen
Shake window back/forth	Minimise everything but the current window
Double-click top window border (edge)	Maximise window vertically
[Win] + number (1-9)	Start the application pinned to the taskbar in that position, or switches to that program
[Shift] + [Win] + number (1-9)	Start a new instance of the application pinned to the taskbar in that position
[Ctrl] + [Win] + number (1-9)	Cycle through open windows for the application pinned to the taskbar in that position
[Alt]+ [Win] + number (1-9)	Open the Jump List for the application pinned to the taskbar
[Win] +T	Focus and scroll through items on the taskbar
Win + B	Focus the System Tray icons
[Shift]+Click on a taskbar button	Open a program or quickly open another instance of a program
[Ctrl] + [Shift] + Click on a taskbar button	Open a program as an administrator
Shift+Right-click on a taskbar button	Show the window menu for the program (like XP does)
Shift + Right-click on a grouped taskbar button	Show the window menu for the group
[Ctrl] + Click on a grouped taskbar button	Cycle through the windows of the group
[Ctrl] +[Shift] + N	Creates a new folder in Windows Explorer
[Alt] + [Up]	Goes up a folder level in Windows Explorer
[Alt] + P	Toggles the preview pane in Windows Explorer
[Shift] + Right-Click on a file	Add Copy as Path, which copies the path of a file to the clipboard
[Shift] + Right-Click on a file	Add extra hidden items to the 'Send To' menu
[Shift] + Right-Click on a folder	Adds 'Command Prompt Here', which lets you easily open a command prompt in that folder
[Win] + P	Adjust presentation settings for your display
[Win] + [+/-]	Zoom in/out
[Shift] + Right-Click	Enhance 'Send to' menu
[Shift] + Right-Click in empty space	Get the 'Open Command Prompt' option in the context menu
[Ctrl] + [Shift] + [Esc]	Open Windows Task Manager
[Win] + [Space]	Peek at the desktop



Mac OS X

[Command]+[Space]	Show or hide the Spotlight search field (if multiple languages are installed, may rotate through enabled script systems)
[Control] + [Option] + [Command] + [Eject]	Instant shutdown
[Command] + [Shift] + A/U/D	Open Applications/Utilities/Desktop folder
[Control] + D or [Command] + [Bkspc]	Delete in a text area
[Control] + [Option] + [Command] + 8	Invert colours on your Mac screen
Control + Command + D	Open the built-in dictionary pop-up
[Command] + [Shift] + 4 + [Space bar]	Screenshot of a window
[Option] + [Shift] + [Command] + [Esc]	Force-quit application by-passing the Force quit dialog



Ubuntu 11.10

[Ctr] + W	Close the current window
[Ctrl] + Q	Close the current application
[Super] + W	Spread all windows in the current workspace
[Ctrl] + [Alt] + D	Minimise all windows
[Super] + A/F/M	Open Dash Lens for Application/Files/Music
[Ctrl] + [Tab]	Switch between Lenses
[Ctrl] + [Alt] + Num-padX	Position the image in the specified part of the screen
[Ctrl] + [Alt] + [Arrow Key]	Navigate to the workspace in that direction
[Ctrl] + [Alt] + [Shift] + [Arrow Key]	Move the selected window to the workspace in the specified direction
[Ctrl] + [Alt] + [Backspace]	Restart the session
[Ctrl] + H	Show hidden files in Nautilus



MS Word 2010

[Shift]+F3	Change the case of letters
[Shift]+F5	Move to the last change
[Shift]+F6	Go to the previous pane or frame (after pressing F6)
[Shift]+F7	Choose the Thesaurus command (Review tab, Proofing group)
[Shift]+F8	Reduce the size of a selection
[Shift]+F9	Switch between a field code and its result
[Ctrl]+[Shift]+F3	Insert the contents of the Spike
[Ctrl]+[Shift]+F8, and then press an arrow key	Extend a selection or block
[Ctrl]+[Shift]+F9	Unlink a field
[Ctrl]+[Shift]+F11	Unlock a field
[Alt]+[Shift]+K	Preview a mail merge
[Alt]+[Shift]+N	Merge a document
[Alt]+[Shift]+M	Print the merged document
[Alt]+[Shift]+E	Edit a mail-merge data document
[Alt]+[Shift]+F	Insert a merge field
[Alt]+[Ctrl]+M	Insert a comment
[Ctrl]+[Shift]+E	Turn change tracking on or off



MS Powerpoint 2010

F6	Move clockwise among panes in Normal view
[Shift] + F6	Move counterclockwise among panes in Normal view
[Ctrl] + [Shift] + TAB	Switch between Slides and Outline tabs in the Outline and Slides pane in Normal view
[Shift] + F9	Show or hide the grid
Alt + F9	Show or hide guides
Number + [Enter]	Go to slide number
B or Period	Display a blank black slide, or return to the presentation from a blank black slide
W or Comma	Display a blank white slide, or return to the presentation from a blank white slide
S	Stop or restart an automatic presentation
[Esc] or Hyphen	End a presentation
E	Erase on-screen annotations
H	Go to the next slide, if the next slide is hidden
T	Set new timings while rehearsing
O	Use original timings while rehearsing
M	Use mouse-click to advance while rehearsing
R	Re-record slide narration and timing
A or =	Show or hide the arrow pointer
[Ctrl]+P	Change the pointer to a pen
[Ctrl]+A	Change the pointer to an arrow
[Ctrl]+E	Change the pointer to an eraser
[Ctrl]+M	Show or hide ink markup
[Ctrl]+H	Hide the pointer and navigation button immediately
[Ctrl]+U	Hide the pointer and navigation button in 15 seconds



WinAmp

[]	Increase EQ Preamp
1 - 0	Increase EQ bands
A	Toggle EQ Auto-Loading
[Ctrl]+F4	Close (hide) Graphical Equalizer
[Ctrl]+S	Load Preset
N	Toggle EQ
Q - P	Decrease EQ bands
S	Open Presets Menu
J or Keypad	Open Jump-to-file Box
1	Jump Ten Songs Back
3	Jump Ten Songs Forward
[Alt]+3	Current file info box/ID3 editor
B or 6	Next Track
C	Pause/Unpause
[Ctrl]+L or [Ctrl]+Keypad 0	Open/Play location
[Ctrl]+V	Stop after current track
Down Arrow or Keypad 2	Turn Volume Down
Keypad 8 or Up Arrow	Turn Volume Up
L or Keypad 0	Open/Play File
Left Arrow or 7	Rewind 5 seconds
R	Toggle Repeat
Right Arrow or 9	Fast-forward 5 seconds
S	Toggle Shuffle
[Shift]+V	Stop with Fadeout
V	Stop
X or 5	Play/Restart/Unpause
Z or 4	Z or Keypad 4 Previous Track



MS Excel 2010

[Ctrl] + PgUp	Switches between worksheet tabs, from left-to-right
[Ctrl] + PgDn	Switches between worksheet tabs, from right-to-left
[Ctrl] + [Shift] + &	Applies the outline border to the selected cells
[Ctrl]+[Shift]_	Removes the outline border from the selected cells
[Ctrl]+[Shift]+~	Applies the General number format
[Ctrl]+[Shift]+\$	Applies the Currency format with two decimal places (negative numbers in parentheses)
[Ctrl]+[Shift]+%	Applies the Percentage format with no decimal places
[Ctrl]+[Shift]+^	Applies the Scientific number format with two decimal places
[Ctrl]+[Shift]+#	Applies the Date format with the day, month, and year.
[Ctrl]+[Shift]+@	Applies the Time format with the hour and minute, and AM or PM
[Ctrl]+[Shift]+!	Applies the Number format with two decimal places, thousands separator, and minus sign (-) for negative values
[Ctrl]+[Shift]+:	Enters the current time
[Ctrl]+[Shift]+"	Copies the value from the cell above the active cell into the cell or the Formula Bar
[Ctrl]+[Shift]+ Plus (+)	Displays the Insert dialog box to insert blank cells
[Ctrl]+Minus (-)	Displays the Delete dialog box to delete the selected cells
[Ctrl]+;	Enters the current date
[Ctrl]+`	[Alt]ernates between displaying cell values and displaying formulas in the worksheet
[Ctrl]+'	Copies a formula from the cell above the active cell into the cell or the Formula Bar
[Ctrl]+1	Displays the Format Cells dialog box
[Ctrl]+6	[Alt]ernates between hiding and displaying objects
[Ctrl]+8	Displays or hides the outline symbols
[Ctrl]+D	Uses the Fill Down command to copy the contents and format of the topmost cell of a selected range into the cells below
[Ctrl]+G	Displays the Go To dialog box. F5 also displays this dialog box
[Ctrl]+I	Applies or removes italic formatting
[Ctrl]+L	Displays the Create Table dialog box



VLC Media Player

v	Subtitles cycle/off
b	Audio track cycle
p	Play movie (from the very beginning)
s	Stop movie
+/-/=	Faster, slower, normal
a	Aspect ratio
c	Crop screen
g/h	Increase or decrease subtitle delay
j/k	Increase or decrease audio delay
z	Change zoom mode
[Ctrl]+1, [Ctrl]+2, [Ctrl]+3, [Ctrl]+4	Recent media (in Media - Recent media menu)
t	Show time
[Ctrl]+t	Go to time
[Shift]+Left/Right	Very short jump (3 seconds)
[Alt]+Left/Right	Short jump (10 seconds)
[Ctrl]+Left/Right	Medium jump (1 minute)
[Ctrl]+[Alt]+Left/Right	Long jump



Media Player Classic

Arrow up/Arrow down	Volume
w	Subtitle on/off
s	Subtitle cycle
a	Audio cycle
[Shift]+Arrow left/Arrow right	Jump to keyframe
Arrow left/Arrow right	Medium jump (~5-20 sec)
[Ctrl]+g	Go to time
o	Options
b	Boss key
[Shift]+F10	File properties
Alt+i	Save picture
[Ctrl]+i	Show time
[Ctrl]+7	Playlist
1	Minimal view
2	Compact view
3	Normal view



Google Chrome

Alt+F or [Alt]+E	Opens the wrench menu, which lets you customize and control settings in Google Chrome
[Ctrl]+[Shift]+B	Toggles the bookmarks bar on and off
[Shift]+Esc	Opens the Task Manager
F6 or [Shift]+F6	Switches focus to the next keyboard-accessible pane
[Ctrl]+[Shift]+J	Opens Developer Tools
[Ctrl]+[Shift]+Delete	Opens the Clear Browsing Data dialog
[Ctrl]+[Shift]+M	Switch between multiple users
[Ctrl]+L or [Alt]+D	Highlights the URL
[Ctrl]+K or [Ctrl]+E	Places a '?' in the address bar. Type a search term after the question mark to perform a search using your default search engine
[Ctrl]+G or F3	Finds the next match for your input in the find bar.
[Ctrl]+[Shift]+G, [Shift]+F3	Finds the previous match for your input in the find bar
Press [Alt] and click a link.	Downloads the target of the link.



Firefox

Alt + D	navigate directly to the browser address bar of firefox
[Ctrl]/[Cmd]+L or [Alt]+D	Select location bar
[Ctrl]/[Cmd]+K	Select search bar
[Ctrl]/[Cmd]+Down (Next) +Up (Previous)	Change search engine
/	Find as you type text
'	Find as you type link
F7	Caret Browsing
[Ctrl] + [Shift] + T	Undo Close Tab
[Ctrl] + [Shift] + E	Tab Groups View
[Ctrl] + `	Next Tab Group
[Ctrl] + [Shift] + `	Previous Tab Group



Opera

Enter a Web address	F2
Paste and go in current or new tab	[Ctrl] + [Shift] + V
Speed Dial	[Ctrl] + 0-9
Enter nickname for fast bookmark access	[Shift] + F2
Fast Forward	[Shift] + [Backspace]
Remove the last part of any Web address (such as a sub-directory)	[Ctrl] + [Backspace]
Open developer tool	[Ctrl] + [Shift] + I
Log in/auto-fill form using the Wand	[Ctrl] + Enter
Quickly edit most popular preferences	F12
Manage bookmarks	[Ctrl] + [Shift] + B
Manage transfers	[Ctrl] + J
Download and list available rooms on chat server	[Ctrl] + [Shift] + J
Set focus to chat input field	[Shift] + F9



Google Talk

Shift + Enter	Line break
Put an asterisk (*) before and after content. [Example] *this will be bold*	Bold text
Put an underscore (_) before and after content. [Example] _this will be italic_	Italic text
Ctrl + I	Switch between chat windows
Alt + Esc	Minimise chat window
Windows + Esc	Restore your Gtalk from minimised mode



Yahoo Messenger

Bring Yahoo Messenger to Focus, works even if Yahoo Messenger is sitting in the system tray.	[Windows] + Y
Buzzes the contact you are chatting with.	[Ctrl] + G
Show or Hide offline contacts in main messenger Window.	[Ctrl] + H
Open preferences window.	[Ctrl] + [Shift] + P
Provides a option to send a Instant message.	[Ctrl] + M
Provides a option to send a SMS message.	[Ctrl] + T
Provides a option to make a call.	[Ctrl] + L
Provides options to Call a phone number.	[Ctrl] + K
Send a email message.	[Ctrl] + Y
Provides options to add a contact.	[Ctrl] + [Shift] + A
Switches between different messaging formats provided by Yahoo Messenger 9 and above.	[Ctrl] + [Shift] + 0,1 or 2 and above.
Closes a active message window.	[Esc]
Sign out of Yahoo Messenger.	[Ctrl] + D
Sign out of Yahoo Messenger client and sign in to your mobile device.	[Ctrl] + [Shift] + D
Change your display Image.	[Ctrl] + [Shift] + F8
Send you contact info in a active chat window.	[Ctrl] + [Shift] + C
Send you messenger friend list in a active chat window.	[Ctrl] + [Shift] + M
Request contact details in a active chat window.	[Ctrl] + [Shift] + R



Gmail

To turn these case-sensitive shortcuts on or off, click the gear icon at the top of any Gmail page and then Mail settings. Choose the option next to "Keyboard shortcuts" to turn them on.

c	Compose
/	Search
k	Move to newer conversation
j	Move to older conversation
n	Next message
p	Previous message
o or [Enter]	Open
u	Return to conversation list
e	Archive
m	Mute
x	Select conversation
s	Star a message or conversation
+	Mark as important
-	Mark as unimportant
!	Report spam
r	Reply
a	Reply all
f	Forward
[Esc]	Escape from input field
#	Delete
l	Label
v	Move to
[Shift] + i	Mark as read
[Shift] + u	Mark as unread
[Archive and previous
]	Archive and next
z	Undo
[Shift] + n	Update current conversation
q	Move cursor to chat search
y	Remove from Current View*
.	Show more actions
[Ctrl] + [Down arrow]	Opens options in Chat
?	Show keyboard shortcuts help
k	Move up a contact
j	Move down a contact
o or [Enter]	Open
u	Return to contact list view
e	Remove from Current Group
x	Select contact
[Esc]	Escape from input field
#	Delete
l	Group membership
z	Undo
.	Show more actions
[Tab] then [Enter]	Send message
y then o	Archive and next
g then a	Go to 'All Mail'
g then s	Go to 'Starred'
g then c	Go to 'Contacts'
g then d	Go to 'Drafts'
g then l	Go to 'Label'
g then i	Go to 'Inbox'
g then t	Go to 'Sent Mail'
* then a	Select all
* then n	Select none
* then r	Select read
* then u	Select unread
* then s	Select starred
* then t	Select unstarred



Google+

Navigating

Key	Action
J	Scroll down to next Google+ stream update
K	Scroll up to previous Google+ stream update
QQ	Pressing Q twice moves your cursor the search box in the "chat" section of Google+
[Space]	Scroll down stream by regular intervals
[Space] + [Shift]	Scroll up stream by regular intervals
[Enter]	When a stream update is selected [Enter] moves your cursor to the comment box
[Enter] + [Tab]	Submit comment
@	@ followed by a username is used to mention someone in a post or share the post with them

Formatting

*	Use the * symbol to denote the beginning and end of bold text- *This would appear bold in Google+*
_	Use the _ symbol to denote the beginning and end of italics text- _This would appear in italics in Google+_
-	Use the - symbol to denote the beginning and end of strikethrough text- -This would appear in strikethrough in Google+-



Facebook

Alt + ?	Search
[Alt]+m	Compose a new message
[Alt]+1	Home page
[Alt]+2	Your profile page
[Alt]+3	Friend requests
[Alt]+4	Your messages
[Alt]+5	Notifications
[Alt]+6	Account page
[Alt]+7	Privacy
[Alt]+8	Facebook's Facebook page
[Alt]+9	Facebook Terms/Agreement
[Alt]+0	Facebook help center

For Firefox: Add Shift to the key combination, so as not to trigger Firefox's own [Alt]-centered operations.

For Mac: Replace [Alt] with Control + Option



Evernote

F6	If search box is empty, move focus to it, otherwise start search and move to first highlighted keyword.
[Ctrl] + [Shift] + A	Reset search
F9	Start synchronization with the Service
F10	Toggle display of note list
F11	Toggle display of side panel
[Ctrl] + N	Create a new note
[Ctrl] + [Shift] + T	Create a new tag
F3	Set focus to the tag field of the active note
[Ctrl] + [Shift] + E	Send selected notes by email
[Alt] + [Enter]	Open the selected note in a separate window
Delete	Move selected notes to trash



WordPress

When writing a post

[Ctrl] + b	Bold
[Ctrl] + i	Italics
[Alt] + [Shift] + a	Link
[Alt] + [Shift] + q	Blockquote
[Alt] + [Shift] + t	Read more
[Alt] + [Shift] + u	Unordered list (ul)
[Alt] + [Shift] + o	Ordered list (ol)
[Alt] + [Shift] + l	List item (li)
[Alt] + [Shift] + v	Advanced editor
[Alt] + [Shift] + p	Publish the post
[Alt] + [Shift] + d	Strikethrough
[Alt] + [Shift] + w	Unquote/outdent
[Alt] + [Shift] + u	Undo
[Alt] + [Shift] + y	Redo
[Alt] + [Shift] + e	Edit HTML

Moderating comments

k	Move the selection (light blue background) up
j	Move the selection (light blue background) down
a	Approve the currently selected comment
s	Mark the current comment as spam
d	Deletes the current comment
u	Unapprove the currently selected comment
r	Initiates an in-line reply to the currently selected comment
[Esc]	Cancel the current reply
q	Edit the currently selected comment
x	Select the current comment, used with bulk moderation
[Shift] + x	Reverses the selection
[Shift] + a	Approve the checked comments (Bulk moderation)
[Shift] + s	Marks the checked comments as spam (Bulk moderation)
[Shift] + d	deletes the checked comments (Bulk moderation)
[Shift] + u	unapproves the checked comments (Bulk moderation)
[Shift] + t	moves the checked comments to the Trash (Bulk moderation)
[Shift] + z	restores the checked comments from the Trash (Bulk moderation)



Foxit Reader

[Alt] + 1	Bookmark
[Alt] + 2	Full screen
[Alt] + 3	Hand tool
[Alt] + 4	Zoom out tool
[Alt] + 5	Zoom in tool
[Alt] + 6	Select text
[Alt] + 7	Snapshot
[Alt] + 8	Typewriter
[Ctrl] + M	Zoom to
[Ctrl] + 1	Actual size
[Ctrl] + 2	Fit to page
[Ctrl] + 3	Fit width
[Ctrl] + Shift + Plus	Rotate Clockwise



GIMP

R	Rect Select
E	Ellipse Select
F	Free Select
U	Fuzzy Select
[Shift]+O	Select By Color
I	Scissors
B	Paths
O	Color Picker
M	Move
[Shift]+C	Crop and Resize
[Shift]+R	Rotate
[Shift]+T	Scale
[Shift]+S	Shear
[Shift]+P	Perspective
[Shift]+F	Flip
T	Text
[Shift]+B	Bucket Fill
L	Blend
N	Pencil
P	Paintbrush
[Shift]+E	Eraser
A	Airbrush
K	Ink
C	Clone
V	Convolve
S	Smudge
[Shift]+D	Dodge/Burn
X	Swap Colors
D	Default Colors
PgUp	Select the layer above
PgDn	Select the layer below
Home	Select the first layer
End	Select the last layer
[Ctrl]+M	Merge visible layers
[Ctrl]+H	Anchor layer
[Ctrl]+T	Toggle selections
[Ctrl]+A	Select all
[Shift]+[Ctrl]+A	Select none
[Ctrl]+I	Invert selection
[Shift]+[Ctrl]+L	Float selection
[Shift]+V	Path to selection
[Shift]+[Ctrl]+N	New Layer
[Shift]+[Ctrl]+D	Duplicate Layer
[Ctrl]+H	Anchor Layer
Page Up	Select Previous Layer
Page Down	Select Next Layer
Home	Select Top Layer
End	Select Bottom Layer

Tried something creative using the above tips? Drop us an e-mail at readersletters@thinkdigit.com or post it on our Facebook page at www.facebook.com/thinkdigit or on Twitter @digitindia

worldview

OUR PICK OF THE BEST TECH ARTICLES FROM AROUND THE GLOBE

(MUST READS)



THE START BUTTON?

Though Microsoft may yet have some tricks up its sleeve, there's a growing body of evidence from leaked screenshots that Windows 8's taskbar will omit one mainstay of the Windows user interface: the Start button

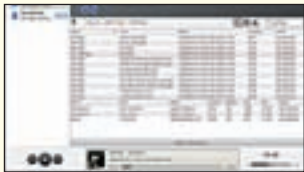
<http://goo.gl/AwW3l>

RAZER BLADE REVIEW

Blade is a gaming laptop coming from the most unusual of sources – Razer, known for its gaming accessories. Engadget presents a detailed review

<http://goo.gl/0NbA1>

TOMAHAWK



You can see music apps almost everywhere you look, but nobody's talking about perhaps the most important music app available right now

<http://goo.gl/jU6Yz>

FUTURE OF FLASH

An in-depth look at what Adobe has in store for Flash and AIR platforms and how devices, software and services across form factors will be affected

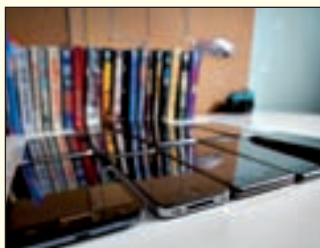
<http://goo.gl/D8QnA>

(The Verge Corner)

RESEARCH, NO MOTION: HOW THE BLACKBERRY CEOS LOST AN EMPIRE



Research In Motion, whose BlackBerry phones pioneered wireless email, no longer holds the commanding heights in the smartphone market. In this interesting essay, The Verge takes a look at what went wrong <http://goo.gl/Q37TD>



FRANDs Forever

An in-depth insight into how the smartphone industry has turned tacit, gentleman's agreement on important smartphone technologies into a full-scale patent war

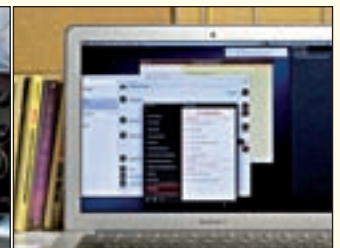
<http://goo.gl/M9RKe>



PS Vita and the state of gaming

Sean Hollister and Paul Miller – two of The Verge's leading editors debate on the future of the PlayStation and the portable gaming industry in general

<http://goo.gl/R3bTW>



Mac OS X 10.8 Preview

Named Mountain Lion, the next iteration of Mac OS X is very much a major new version of the operating system and not just a polish-and-stabilise job like Snow Leopard

<http://goo.gl/z6iL5>

TWEAKING MUSIC FOR THE IPOD AGE

Audio engineers are increasingly creating specially mastered versions of songs designed to counteract the audio degradation caused by compression. Mastering engineers are doing their best to pass through Apple's iTunes algorithms with minimal sonic corruption <http://goo.gl/dP3yB>

BEGONE CRAPWARE!

Many of us who buy new desktops or laptops are surprised by the number of programs that litter our screen. We call that bloatware. Find out if you need or want it, and ways to remove if you don't. PC Mag presents a step-by-step tutorial on identifying and removing these obnoxious software <http://goo.gl/hSVGi>

CHROME FOR ANDROID



Google is finally making the move we've been expecting for some time now and bringing Chrome to Android. Engadget presents a hands-on video of Chrome for Android running in ICS on a Samsung Galaxy Nexus <http://goo.gl/4HcGg>

GOOGLE OR Groupon

Facebook is finally going public. It's either going to be the next biggest thing on Wall Street since money or Facebook's IPO will meet a fate similar to that of this year's other high-profile tech IPOs like Zynga and Groupon. In sync with our cover story here's Wired's take on the same <http://goo.gl/Hbkzc>

SHORTS

The state of DDR4

Truths about the next big thing for RAMs, and how fast we'll see it sitting in our computers...

- By Matthew Murray



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Do almost anything often enough, and the individual steps become routine. It certainly feels that way when I'm building computers: There are days I feel like I could do it in my sleep (and, truth be told, there are days I probably have). But when you're selecting parts, most of the components require at least a little analysis. The CPU and the motherboard are major, and have to be considered together. Of course storage is a big deal — you always want enough and you always want it to be fast, and optimizing those qualities with affordability can be a headache (especially at the moment [1]). For a gaming system, the right video card is essential. And in addition to being your system's face to the world, the case will affect both the way you build the computer and how much you can expand it later. And... that's it. Right? Am I forgetting anything?

Oh yeah, RAM. Sorry about that. But I admit it: When I'm shopping for memory, I pretty much turn off my brain. It's not intentional, and it's not that I think RAM isn't important. It's just that it's the easiest kind of hardware to shrug off. Most of us, even when we're in our most rabid enthu-

siast mode, roll our eyes at the arcane industry of RAM timings. Provided the DIMMs' voltages and speeds are compatible with the motherboard, everything else usually seems academic. Oh, if I'm being super picky about components, I might pay a bit more attention, but in reality that's rarely necessary. These days, you can take it for granted that basic DDR3 is going to be what you want.

It occurred to me last week, however, that we're rapidly approaching another time when that might not be the case. As processors and other hardware get more powerful, it becomes more difficult — and important — for RAM to keep up. Over the last 20 years or so we've seen single data rate (SDR) memory give way to double data rate (DDR) memory, which transfers data on both the rising and falling edges of the clock signal. And over the last decade,

we've slowly progressed from DDR to DDR2 (with an internal clock running at half DDR's rate) to DDR3 (operating at half DDR2's rate), constantly upping performance while reducing power usage along the way. But what about the next logical step in this particular cycle: DDR4?

It's coming, though when — and whether — you'll see it for use in your home computer is still somewhat up in the air.

Samsung announced a year ago that it had developed the first 2GB DDR4 modules using a 30nm process technology, achieving with them transfer rates of 2.133Gbps at 1.2 volts. Three months later, Hynix came up with its own DDR4-2400 modules operating at the same voltage.

The website DDR4.org, which is (not surprisingly) devoted to information about the upcoming memory standard,

is a bit light on substantive information but fleshes out a few of the details. Among them: Data transfer rates would start at 2,133MT/s (about where DDR3 is leaving off) and could eventually double to 4,266MT/s, and initial energy consumption is expected to be about 1.2 volts (though later chips might be able to use as little as 1.05 volts). The site goes on to say that "other sources



GOOGLE'S NEW PRIVACY POLICY EXPLAINED

Google announced that it was overhauling more than 60 of its privacy policies and replacing them with one single umbrella policy that will cover all its services. Danny Sullivan, Executive Editor of Search Engine Land explains the policy in detail, how it affects us as end-users and its ramifications in the time to come <http://goo.gl/kk91b>

WE WANT IPAD3

With rumours running rampant about Apple's forthcoming iPad 3 launch, many consumers are planning to buy one of the coveted tablets, including those who already own a Kindle Fire. These are results from a new survey carried out by TechBargains.com. Here's an infographic <http://goo.gl/Z9CdK>

UBUNTU FOR ANDROID

Cramming a desktop environment onto a smartphone is a fun project that promises very little actual usefulness. Ubuntu for Android takes a different approach and shows the OS as and when necessary like, when connected via USB to the system it gives you a full Unity desktop to play around with and a 10-foot Ubuntu TV interface when connected to a TV <http://goo.gl/F6Z2s>

INSIDE FOXCONN



Following weeks of intense scrutiny of worker treatment at Apple's Chinese suppliers, the tech giant granted ABC's Nightline unprecedented access to Foxconn's factories <http://goo.gl/dmlrC>



have noted that the [power] consumption is 40 percent less for DDR4 than for an equivalent DDR3 chip." Not bad. Another nugget of useful information on the site is the mention that DDR4 might make use of "pseudo open drain" technology, which was adapted from GDDR memory.

More interesting still is that you'll be able to finally forget about dual-, triple-, and quad-channel memory configurations. DDR4 will use a point-to-point topology, so there will be only one DIMM per channel. As Bit-tech pointed out, this is a continuation of the simplification process that memory has undergone ever since the move to DDR. As what happened when the PCI bus became PCI Express, "DDR4 will become a point-to-point bus and the parallelism is being left with the memory controller itself with multiple memory channels," the site explains.

I contacted Corsair, a company that knows just a little about memory, to find out what all this is likely to mean for system building. Robert Pearce, the company's senior technical marketing specialist, gave me some good information.

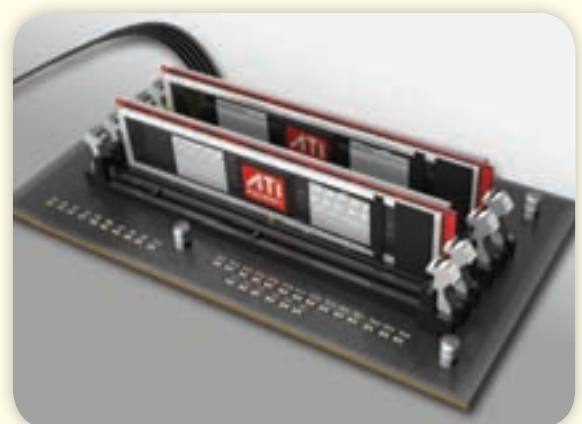
The first DDR4 chips, he told me, will be coming out at the end of 2012 — but "the initial target platforms are servers, not desktops." In fact, Pearce even acknowledged the rumors that DDR4 might never be seen on desktops at all, but went on to point out that "this is really something that will be dictated by Intel and AMD since they are the driving force behind the memory used in client computing platforms (based on the fact that the memory controller is integrated into the CPU)."

X-bit labs estimates that, if DDR4 does show up on desktops, it will probably be in 2014 and production ramp-up will be rapid, with DDR4 instantly garnering about 12% market share and increase to 56% in 2015. Given how long DDR3 took to catch on, I'm a bit skeptical about that, but it's far too early to say for sure.

Something else that's difficult to predict with any accuracy is what performance improvements users can

expect compared with DDR3 — and on that matter Pearce is rather conservative. "[They] are not likely to be very significant," he told me. "Over time, the DDR4 signaling structure will allow for higher bus frequencies, but the overall access times (clock period x latency) are not changing dramatically. This means that while there is higher peak bandwidth (which can provide performance improvements in a server environment where multiple accesses from completely independent threads can be queued up), the time needed to get data for a given request will not really change."

Sure, what will happen with DDR4 remains to be seen, but put me in the "optimistic" column. I recall people saying a lot of similar things about DDR3, too, a few years ago, and that eventually earned wide-scale adoption. Even if DDR4 changes on most fronts are minor, I think the industry will come around. Does it have any other choice?



(worldview)

SMARTER EVERY DAY

An incredibly witty and intelligent channel about everyday science and engineering. Videos here range from



awesome experiments like Lasers vs Balloons, Operation Rocket and the Fire Tornado to incredibly zany ones like chicken head tracking, chicken-powered steady cam and poop physics
<http://goo.gl/MeBiY>

(QR Code)



For a list of all the links from this section head over to <http://minmu.net/WVMarch12/> or scan the QR code above with your mobile device.

(PRODUCT LAUNCHES)

LG OPTIMUS 3D MAX



LG announced Optimus 3D's successor – the Optimus 3D Max. It features a TI OMAP 4430 dual-core processor clocked at 1.2GHz with a modest 4.3-inch WVGA 3D IPS display. It features a 3D converter, which converts 2D applications to 3D. The pricing is still under wraps

PLAYSTATION VITA



PS Vita doesn't warrant any introduction. It is perhaps the most powerful handheld gaming device available in the market right now. Powered by an ARM Cortex A9 quad-core chip and SGX543MP4+ GPU, and allowing nearly every form of input. PlayStation Vita sells for ₹19,990 on Flipkart

SAMSUNG GALAXY TAB 680



This 7.7-inch tab was announced last September at IFA in Berlin. It has a Super AMOLED Plus Display, is powered by 1.4GHz dual core processor plus 1GB of RAM and runs Android Honeycomb. The Samsung Galaxy Tab 680 is now available from Flipkart for ₹33,571

WORDSEARCH

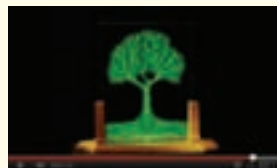
ABSOLUTE TIMEPASS

M	Q	W	Y	F	Q	R	T	V	A	Y	M	U	E	O
I	X	V	P	F	K	I	K	J	N	M	E	B	E	R
T	T	A	Z	H	D	J	L	N	E	H	T	B	X	A
O	P	G	H	D	R	G	O	C	C	I	P	U	F	M
S	L	F	E	Y	M	C	N	E	X	W	R	K	B	J
I	S	R	K	D	X	E	S	F	S	E	F	D	F	E
S	T	K	H	O	C	R	R	S	T	P	L	E	A	T
L	U	Y	F	S	A	U	U	S	A	S	A	R	Y	G
N	R	Y	E	P	S	O	U	T	N	X	S	P	C	J
G	G	N	V	W	M	R	I	M	U	W	H	Z	L	D
X	E	N	S	Y	H	V	S	R	C	U	F	J	U	M
S	O	C	N	T	I	I	Q	S	L	T	P	B	S	J
F	N	O	X	O	P	A	O	Q	E	X	V	N	T	T
G	N	G	U	Y	E	S	C	S	U	E	N	A	E	N
A	T	Q	Z	Q	C	U	Z	C	S	A	G	O	R	W

The puzzle on the left contains 15 words from articles in the magazine which are arranged vertically, horizontally and diagonally. How many can you find?

Top 3 YouTube Picks

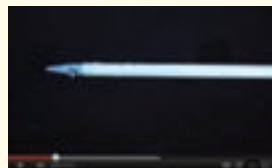
Make sure your boss doesn't catch you goofing off with one of these playing on your screen



Shockfossils

Duration 03:22

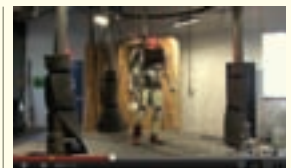
Making artwork with a five-million volt electron accelerator
<http://goo.gl/gmlFq>



Knitting Needle Experiment

Duration 05:24

Physics in space for "Science off the Sphere."
<http://goo.gl/neDVu>



PETMAN

Duration 01:17

PETMAN – an anthropomorphic robot by Boston Dynamics
<http://goo.gl/AMrVu>



An interview with the Facebook team, on how it caters to growing demands, and addresses them on pg. 72. For the full interview visit:
dvwX.in/mar-12-fb

The battle for an open web

The world of open web standards, and browser vendors is in a storm over the approach that browser vendors might choose to break from the WebKit monoculture. Since the controversy involves vendor prefixes in CSS, so some knowledge of vendor prefixes is essential in understanding the conundrum at hand. For a comparison, go to <http://dvwX.in/Av28Xv>.

Vendor Prefixes

Web standards that browsers implement go through a long gestation process in which the correct way to implement each feature is considered. For something to become a recommendation though, there needs to be two compatible implementations of that standard in browsers.

For the web to progress and evolve, it is also important for browsers to experiment and come up with new features that would be cool to have on the web. These are often only implemented in one browser initially,

then proposed to the standards committee and finally adopted, or rejected by all browsers.

In this initial phase, the feature might be in different browsers, but implemented in a way that is incompatible with other browsers. Hence, a vendor prefix is added. Let's consider CSS3 gradients, for example.

While incompatible, and non-standard, the CSS gradients property could be called `-webkit-gradient` in WebKit browsers, `-moz-gradient` in Mozilla / Gecko browsers, `-ms-gradient` for Internet Explorer, `-o-gradient` for Opera, and `-khtml-gradient` for KHTML browsers (Konqueror).

Different browsers can experiment with different syntax; when it becomes standardised across browsers, the `-webkit-`, or `-moz-` bit is dropped.

The Conundrum

Due to a majority of mobile browser engines being based on WebKit, a lot of websites are built only for WebKit browsers and as such only include the



`-webkit-` bit, even if that feature is supported in other browsers.

Now WebKit developers are unlikely to drop the prefixes and other browser vendors such as Mozilla, Opera, and Microsoft have few options and are actually considering adding `-webkit-` prefix to their own browsers just to have those sites working again.

Obviously, a lot of people are unhappy with this; but the fact of the matter is that the situation is bad enough that there are few other options left. >

*side panel



*PSD.js

>>psd.js is a file parser for PSD files created in Photoshop. Given a PSD file, it can parse out information such as image size and color modes, and image contents.

<http://dvwX.in/AfM3cf>

*Ultimate CSS Gradient Generator

>> Yes, that's right; you no longer need to add images to get gradients on your web page. With this service by Colorzilla, you can embed gradients directly as CSS.

<http://dvwX.in/xLZ2vN>



*Seriously.js

>>Seriously.js is a real-time, node-based video compositor for the web. Inspired by professional software such as After Effects and Nuke, Seriously.js renders high-quality video effects.

<http://dvwX.in/y0vz3c>

*footer

*Tablet with KDE Plasma Active announced

>> Spark is an open source, 7-inch tablet. The hardware used by the tablet is unlocked (for hacking fans) and additional features/apps/ productivity will be provided through 'an open content and services market'.

<http://dvwX.in/xCi1WT>



*ReactOS announces version 0.3.14

>>An open source implementation of the popular Windows environment:

<http://dvwX.in/xIYwxe>

*Dartium: Chrome with Dart releases

>> Google has announced a new version of Chromium browser with Dart, an alternative to JavaScript. Dart gives Chromium the flexibility to either run in a virtual machine, or even be compiled into JavaScript, that is commonly used among all browsers in use currently. The new browser is called Dartium, and is available for Windows and Mac:

<http://dvwX.in/wozrow>



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NoSQL

THERE IS more to data than tables

<Although NoSQL is hailed as a single fix for all database issues, some prefer good-old SQL. But, what is NoSQL?> **By Kshitij Sobti**

Is NoSQL the solution to all database woes? Are all those still sticking with SQL databases just old fashioned and unable to move on? As usual when a new technology emerges – or when it becomes popular – it isn't as simple as picking one or the other; so the answer to both these questions is a No. Both have use cases in which they excel, and each asks you to make certain compromises; how these align to the needs of the application, is what matters.

First of all, NoSQL isn't even new. It has been around for a long while. If you take NoSQL to strictly mean a database that doesn't use the SQL query language, you will find many old databases that can be operated without the use of SQL. There were databases before SQL, and those weren't accessed using SQL, of course. More frequently, NoSQL means non-relational. Before we talk of non-relational databases though, let's first take a look at what is a relational database.

Relational Databases

If a database is called relational, that is usually taken to mean that it stores data in the form of tables, where each table can refer to other tables. How would this store data though, you ask?

Let us consider a sample case – the classic example of students in a classroom. For each student, we have a name, and a roll number. Each student can enrol in any number of subjects, and for each subject there can be any number of examinations, each with a score. As you can see, such data is highly structured.

In a relational database, we would have a table that contains columns for the name of the student, and the roll number. In another table we would then have the student's roll number, the subject name, and an enrolment ID that is unique for each student and subject. Finally the exam scores could then be in a third table with columns for the enrolment id, and a score.

If we wanted to query all the scores of a particular student, we would search the table with the names for the student and look up the roll number. From the roll number we would check in the second table for the subjects the student is enrolled in, and the enrolment ID in each. Then for each enrolment ID, we would query the final scores table for the all the exam scores associated with that ID. We now have all the data associated with a particular student.

Now let's approach it differently. What if we need the names of all students who have failed? We query the exams table for scores below a threshold, and find out all the enrolment IDs. There might be duplicates here, since a student could have failed in multiple exams of the same subject, we can remove them, or not. From these enrolment IDs we can find out the particular subjects and roll numbers of students. Finally, the students names can be deduced from

the roll numbers – again there might be duplicates if a student has failed in multiple subjects.

Does each exam has multiple scores, such as internal and external assessments? Just add another table and expand the structure. Its quite flexible as you can see.

In most relational database systems, such queries would just be a single SQL statement! Common tasks such as removing duplicates, or finding aggregates etc. can also be accomplished in a query, rather than in the code later. Most such systems also enforce that all the data in a column be of a certain type. The name column for example, will be text, while the exam score column will only have numbers. This sounds good enough, what's the point of non-relational databases then? Let's have a look.

Non-Relational databases

First of all, non-relational databases are of many types, each with different characteristics. Not all of them will be suitable for all kinds of data.

Applications frequently store data in plain text files, which is another way to store data. Now, for an application storing its configuration settings, there is no need for complex querying of data, no sorting by columns, no aggregating data, and no need to eliminate duplicates. In such as case, a simple simple text file will be a lot more appropriate, and a lot more efficient. Of course this doesn't mean that a text file will be appropriate in the above scenario.

Spreadsheet software, such as the Microsoft Excel or LibreOffice Calc are also useful for storing data; however, storing the kind of data we discussed above is not feasible, or at least not efficient. We know what you're thinking, "but these aren't databases! Show me some databases." We hear you.

Small steps; let's take the example of the Windows registry. It is a central location that all applications can use to store data, so it is in fact a database. It was intended to do away with the need for having applications store configuration information in text files, or in their own formats – which makes it difficult to find, change, export and back up such information in bulk. The Windows registry stores settings in a simple format. Each setting has a name (or "key"), and a value.

How an application uses this is up to the creator. Values could be strings, numbers, binary data etc. All of these a contained in a hierarchy of folders. This keeps each applications settings separate, while still giving structure to the data. Complex operations such as searching for data are rarely required – each application knows exactly where its data is stores – so searching etc. while possible, is not optimised. There are other examples of hierarchal databases like the Windows Registry.

Let us revisit the database we constructed when we were taking a look at the relational database. Let us take a look, not only at the kind of data it is, and but also the kind of ways such data might be accessed or queried. The assumption that we make now might not be representative of the actual usage of such a system, but are mostly made to illustrate the benefits of non-relational databases.

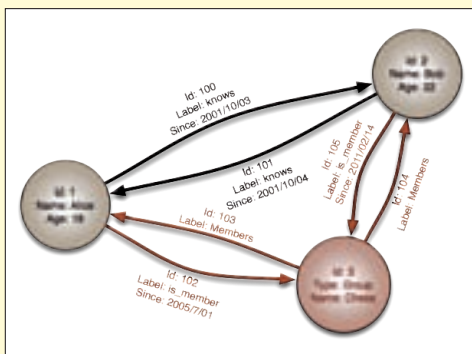
Since we are talking about student scores, we can imagine that the most common use would be to add look up the scores of a particular student, or to add exam scores. While it is important to find out how many students pass or fail, who all take a particular subject, or are eligible for a scholarship; such operations don't need to be performed often.

So when the scores of a particular student are being looked up, it needs to refer to three different tables, combine the details and then only do you get a response. Or four different tables if you have multiple scores per exam.

Also, what if the educational institution maintaining such a database decides at some point, that they need to move from one score per exam to multiple scores per exam? You could add a new table and everything, but handling old scores and new scores at the same time would be difficult.

What if we look at a simple key-value system. The key would be the roll number of the student, and the value would contain all of the student's details and scores. Looking up the scores in this case would be much faster, so would modifying them. Looking for students with scores below a threshold would not be as optimal, however its a relatively infrequent operation and the overall benefits might outweigh the costs. Since there are no tables here, future modifications that involve multiple scores are simple, since both old and new style documents can co-exist.

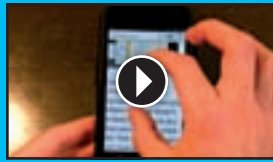
Such a database is called a document-oriented database, and the popular MongoDB, and CouchDB are examples of this kind of database.



AN EXAMPLE OF HOW A GRAPH DATABASE MIGHT REPRESENT A SOCIAL WEBSITE WITH GROUPS

*pointers

>>Nuggets of cool code at work.



*Chrome for Android

>>Google has released the Android version of its popular Chrome browser. Here's a video that highlights the latest features. Duration > 06:27

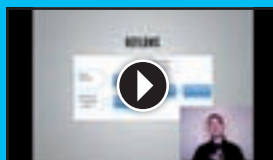
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*Firefox Dev tools

>>Firefox 11 (currently on the Aurora channel) features two major new features: the Style Editor and a 3D view for the page inspector ("Tilt"). Duration > 04:09

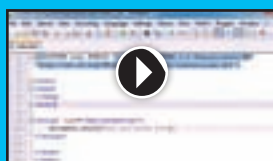
<http://dvwx.in/yT7m6d>



*HTML5, CSS3 and DOM performance

>>Paul Irish, from the Chrome team, walks through smart techniques to improve the performance of your app. Duration > 28:40

<http://dvwx.in/AAkAfx>



*Beginner JavaScript tutorial

>>Here is an interesting series for those of you who want to get started with the most popular scripting language on the web right now. Duration > 06:41

<http://dvwx.in/wbAnm9>

Similarly imagine a Facebook-like application where you have people related to other people, and action performed by one person on another person — Shakeela Swaminathan has poked Prahlad Upadhyay. Here something called a Graph database would be a lot more useful. In a graph databases the people and all their information would be "nodes" with properties such as name, date of birth and other personal details, while edges could connect two nodes, or people; each edge can have its own properties, such as relation, relation start date, poke, etc.

Conclusion

As you can see there is a wealth of ways to represent data that doesn't involve tables with rows and columns, that are linked to further tables of rows and columns. Further, since people are used to such a model with traditional, SQL-based relational databases there can be a



MULTIPLE COLUMNS THAT SHOW RELATIONS USING COMMON IDS. PURCHASES ARE TIED TO A USER VIA USER_ID. PRODUCTS ARE TIED TO A PURCHASE VIA A PRODUCT_ID

tendency to fit data in this model, even when it does not belong.

Even when such databases are a good fit, it can often be better for performance and scalability that a different model be used.

A lot of the major websites in existence today use such kinds of databases. Facebook engineers developed and open-sourced a non-relational database called Cassandra, which is now part of Apache. Facebook no longer uses it but it is now used by Digg, and even Twitter for some data. Facebook has moved on to a different NoSQL database, HBase. Google uses their own system called BigTable.

Many websites start with SQL-based systems for all their data, and eventually move to NoSQL as it is provide benefits for many kinds of data. So while NoSQL isn't a patch for every SQL problem, such systems provide alternative to certain kinds of data storage, and access patterns. Both NoSQL and SQL databases used together can often provide the balance that many applications need. >

>> We have a team to defend against threats >>

>> **Facebook**, as you'd know is the most talked about service right now. We spoke to team Facebook to find out what lies ahead...



>> What are the measures undertaken by Facebook to ensure user privacy?

Security of our site is a top priority for Facebook. We have built, and are constantly improving upon, numerous systems, such as our Complex Automated Systems to protect the site and keep people safe. We have a team dedicated to monitoring the site for vulnerabilities and defending against any threats.

We also have a Security on Facebook Page (<https://www.facebook.com/security>) that offers tips about how to keep your account secure and protect yourself on the internet, and it also highlights announcements around security on the site.

>> With the high volume traffic on Facebook, how do you optimise server loads?

To store all the information on the site, we have data centers that house servers that we developed ourselves. Our servers provide maximum computing power, efficiency at minimum cost. As a part of the Open Compute Project that we announced early last year, our server and data center specifications are available to the public so that others can take advantage of the technology. To learn more about the Open Compute Project, visit <http://opencompute.org>.

>> What was the design philosophy behind the timeline way of shaping profiles?

We wanted to give people even more ways to express who they are and what they like - through a new cover photo and timeline view. Timeline lets you share moments of your life, the other experiences that make up who you are - the music you listen to, the recipes you make for dinner, the news articles you read while you drink your coffee every morning - using applications.

[Read the entire interview online at dvwx.in/mar-12-fb](http://dvwx.in/mar-12-fb). Stay up to date with information at dvwx.in/dvwx-fb

*distro dose



Sabayon Linux 8

>> Sabayon is a Linux distro that aims to deliver the best user experience by providing the latest open source technologies in an elegant format.

<http://dvwx.in/wCuiCw>



Scientific Linux 6.2

>> This is a distro developed mostly by CERN and other academic developers, and is based on Red Hat Enterprise Linux.

<http://dvwx.in/yllsw0>

*from the shelf

>> suggested reads, that you could consider buying

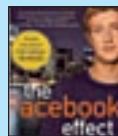


HTML and CSS
<Price> ₹1,400

>> This is a unique book that presents concepts such as markup (HTML) and style (CSS) in a very visual and lucid manner that makes it the ideal book for amateurs and beginners in web technologies. Even those with virtually no experience in HTML and CSS would find this book an interesting read!

Another unique feature in this book, is that it introduces key design and UI concepts including typography and emerging trends with CSS3 such as gradients, drop shadow and styling, and much more! HTML5 is explained in the lightest possible method, we've ever experienced. A must buy for beginners!

<http://dvwx.in/mar-12-bk1>



The Facebook Effect
<Price> ₹299

>> This is the story of how a bunch of 19 year olds created the largest social network on the web. This is the story of Mark Zuckerberg as shared with David Kirkpatrick, a well known journalist.

<http://dvwx.in/yLSTZN>

Disclaimer

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Give your Android a makeover

With customization as its middle name (or is it its last name?), Android does offer the ability to tweak the OS in your smartphone quite extensively <http://bit.ly/wJSuwW>

Nokia lays off 4000

Nokia plans to lay off 4000 employees from Europe and Mexico and shift production to Asia <http://bit.ly/yRYeza>

Design mantra

Exceptional product design resonates among all of us. To better understand the design philosophy behind modern laptops, in general, and ThinkPads, in particular, we sat down with Lenovo's Chief Designer, David Hill

Jayesh Shinde

jayesh.shinde@thinkdigit.com

Q Why is the existing laptop design the way it is? Why haven't we seen overhauls for the classic clamshell design since the mid-80s?

Often mature product categories achieve a certain level of configuration stability. For instance, in the early development days of bicycles, designers explored many ideas, even including concepts using radically different sized wheels. Eventually the product stabilised around two wheels of similar size. Even though the clamshell has become the stable laptop design, we're still innovating and trying new ideas. Our recently introduced IdeaPad Yoga is a great example of bending the rules – it's a great laptop and tablet.

Q When it comes to laptop design, what are the key norms that ThinkPads follow and always conform to?

We always strive to deliver a superior ownership experience, and that's why we spend so much time on the design of our keyboard: we'll never compromise on the typing experience. To do so would be like using a poorly designed steering wheel for a car. We consider, model and test every touch point on the keyboard to ensure superiority for the user.

Q Give us a brief account of a ThinkPad's journey from the drawing board to the



David Hill, Product Design Group, Lenovo

Q finished product? Are there any key steps in the process?

The most interesting step is the one I call brainstorming. In this step, my team works with our marketing team and customer feedback to develop actions for improving the design. It's about looking for ways to improve the design of the previous generation. Appearance, overall quality, ease-of-use and inventive features all come into play.

Q The physical design of a computer has come a long way and is constantly evolving,

Q aspiring to be stylish and sexy. How does ThinkPad fit into this design landscape?

The ThinkPad laptop brand/design has led in design for a long time. For example, the Museum of Modern Art includes the ThinkPad 701c in its permanent design collection. I love seeing a Picasso painting and a ThinkPad laptop together in the same museum.

Today, we continue to evolve the design and invent new experiences that I hope will inspire new generations of ThinkPad users. A simple black box never goes out of style.

Interactive Turntable

Instead of starring for the entire nights at the screen, this projector-enhanced setup turns DJ's turn tables into an interactive display <http://gizmo.do/yqQeCz>

Red lobster campaign

Internet users started a campaign to get a certain Mr. Robert Mills a lobster meal on his birthday, they succeeded <http://bit.ly/x48D0Y>

Industry Connect

Q What do you think of ultrabooks? Are laptops destined to become smaller, lighter, but at the same time offer better performance?

Ultrabooks are a great way to achieve thinner and more portable computing power. I've never been asked by a customer to make a ThinkPad thicker. Thin is in.

Q Microsoft claims Windows 8's Metro UI is best experienced on a tablet. Do you think this will inspire innovations in the age-old clamshell laptop design?

Touch is a very natural way of interacting with information. There are lots of ways we plan to exploit this capability for tablets, phones and laptops.

Q Is a product designer an artist at heart or a smart technician?

A product design is an amalgamation of many disciplines. A designer is an artist, anthropologist, inventor, investigator,



teacher, engineer, marketing specialist and so on. What's unique about a designer, however, is the ability to transform technologies and ideas into objects that drive human desire.

Q What are the obvious challenges faced while coming up with innovative designs for any product (not just laptops)?

One of the biggest design challenges is to developing an idea that has form, meaning and solves a problem. If a design is nothing more than an arbitrary shape

disconnected from what function it must perform, or is functional but ugly or uncomfortable to use, the designer has failed. A truly innovative design must respect both, form and function.

Q Where does your inspiration for innovative product design come from?

Design inspiration can come from anywhere: customer feedback, market research, a trip to the local flea market or an art museum, all are equally inspiring. For example, the shape of a golf tee inspired the design of one of our Track-Point caps. I'm not much of a golfer; but I'm always studying how things are designed and why. **Q**



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The other day my friend's SMPS gave out, and guess who got the call to look for a new one? Moi! So we went to Lamington Road in Mumbai. It wasn't really necessary since many e-commerce web sites now sell most brands and will ship it to your doorstep for a small price, however, we were bored and our next trip to Lamington was due, so we thought "why not?"

SMPS are one of the most neglected components of your computer but of late have gained importance mainly due to power-hungry GPUs. Before getting a new PSU for a new build, the first thing you need to do is calculate the net wattage. You can use any of the many PSU calculators available on the internet to get the job done. A particularly good one is eXtreme Outer Vision's PSU calculator. Select the components that you have or will be having in your system to get the net wattage required for your SMPS.

Once that's taken care of, start counting the number of connectors you'll need. High-end motherboards these days have upto 2x 8-pin ATX connectors for the extreme edition processors. Then there's the 24-pin connector for your motherboard which will be present in all PSUs. All your HDDs, ODDs and SSDs will use the SATA power connectors, hence, the more the merrier. Floppy connectors are no longer needed and molex connec-

tors are needed for fans and, on certain motherboards, to offset the load from the main 24-pin connector. There's the gauge of the wire too; this is important as current passing through a thin wire will likely melt it and lead to unnecessary wastage of time in RMA'ing the device. The most important of all is the PCI-E which will be a 4/6/8-pin connector that goes into your GPU. Almost all PSUs come with adapters which utilise 2x 4-pin molex connectors and have a PCI-E connector on the other end.

Most PSUs have a multi-rail design, which means that the amperage is divided into multiple sources. So you



Platinum PSUs have an efficiency of >90%

can have limits on particular rails. The downside of this is that often one main rail needs to be loaded (needs something drawing power from it) in order for other

If you thought that the CPU was the heart of your computer, then think again...

Agent 001

agent001@thinkdigit.com


rails to activate. Also, it's a bit costlier to have a multi-rail design and manufacturers often falsely claim that their devices have a multi-rail design when they actually have a single-rail design.

Having a modular PSU helps in cable management as unwanted connectors can be detached when not required. Other than that, there's no major reason for going in for a modular PSU.

We've seen those badges on PSUs that say 80+ Bronze/Silver/Gold/Platinum. These are certifications that the particular model has received from an independent authority called Ecova Plug Load Solutions. Cheap PSUs supplied along with cabinets tend to have an efficiency of 65-70 per cent while mainstream brands have 85 per cent efficiency (these are 80+ Bronze PSUs available at just the entry-level). To see the difference it makes, let's consider an output of 400 watts. The cheap PSU will draw $(400/.70)=570W$ and an 80+ Bronze PSU will draw $(400/.85)=470W$. The 80+ Bronze PSU draws a whopping 100W less than the cheaper PSU. In the long run, an efficient power supply pays for itself several times over.

What came as a surprise was that most companies reduced the warranty period on their products a few months back – five years became three and three became one.

There are plenty of brands to choose from, and a little known fact is that most brands don't manufacture their own PSUs. So going in for the OEM that actually manufactures the PSU can save you lots of cash. Seasonic, Channel Well Technology and FSP are such OEM manufacturers whose models are widely used by others. Also these brands have their efficiency rated at 50°C, which is a realistic scenario compared to PSU which are rated at 25°C.

With all that in mind, we settled for a Seasonic SS-750JS which is a pretty decent 750W PSU at a great price, and fitted our needs beautifully. 

Laptop and PC upgrade

I brought and assembled my Dell Studio 1558 with 4 GB RAM with the help of Digit more than a year back. I want to upgrade it to a 8 GB kit (4GBX2). Please suggest upgradable memories for my notebook. I prefer Corsair.



Also, is it possible to somehow upgrade its graphics card?

I also have a PC wherein 4 GB (single) Corsair XMS3 is installed. I want to upgrade my system RAM to 12 GB (triple channel by having three, 4GB RAM modules) and hence, I want to buy the same memory as already installed on my PC. Is it possible to get said configuration as I just want to spend on 4GBX2 (I already have 4GB module)?

I also want to get a 24" 1080p monitor which should have video and audio connectivity as I want it for computer games as well as TV for TATA Sky HD+ (TATA Sky HD+ has HDMI connectivity and I'm hoping that it could deliver both, audio and video over this to the monitor).

Neeraj Shakywal

Your laptop currently uses a 2x2 GB kit rated at 1333MHz. You can replace this kit with Corsair's (CMSO8GX3M2A1333C9) or any other brand's 8 GB kit as long as the speed is the same. Investing in higher-end modules would be worthless as they'll automatically scale down to the specs supported by the motherboard and in some cases may not work at all.

You can upgrade your PC RAM to 12 GB by getting two more 4 GB RAM modules. The main issue here would be getting the same revision of the model. This would be on the sticker on the RAM or on the RAM PCB. Even if you get a RAM of a different revision, they'll still work but you may experience some random jitters.

ASUS VW246H, VE248H, VE248HL, LG W2442PA & NEC EA243WM seem to fit your bill, unfortunately, you'll have a tough time finding any of them in India. Given all the criteria that you've put forward, your choices are very limited.

Graphics card in Jaipur

I want to buy a graphics card within ₹10K in Jaipur and I'd prefer NVIDIA cards. My config is:

- Intel Core i3 540 3.06 GHz
- Gigabyte H55M-S2
- 4 GB RAM
- Seagate 1TB HDD
- NVIDIA 9400 GT
- Windows 7 Ultimate 32-Bit

Also suggest supported power supply for that card.

Saurabh Singh

A NVIDIA GTX560 or an AMD Radeon HD6850 would provide the maximum performance for your budget. Your motherboard, when completely populated, will draw approximately 500 watts, so you'll need a PSU with a little overhead. So a Seasonic S12II 520 or S12II 620 should do. Trusted local shops would be willing to help you out, or you can check out web sites selling GPUs. The downside to this is whenever you have to RMA, you'll have to ship your product to them.

Nokia X2-00 or X2-02?

I want you to suggest the best mobile from between Nokia X2-00 and Nokia X2-02. I'm also okay with other Nokia phones below ₹5,000. Features are as follows:

- **Camera:** 2 mp minimum
- **Memory:** At least 8 GB expandable
- **Screen:** Web surfing and good multi-media support

Rohan Rao



The X2 beats the X2-02 hands down, and if you wish to splurge a little extra, then consider the Asha 300. Compared to X2, Asha 300 has a resistive touchscreen, 3G, better video recording, better processor and slightly bigger screen but both have the same resolution. Asha also supports up to 32GB microSD cards. Both phones have 3.5mm headphone sockets while only the X2 has dedicated music keys. 📺



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Get an idea and a Mini

Idea subscribers will soon get a customised version of Opera Mini

Mobile money order

India Post has tied up with BSNL for a mobile money order service

SPEND SMART

Updated prices of top power supply units, LCD monitors, tablets and headphones



DIGIT BEST BUY WINNERS

Product	Specifications				Price (in ₹)
Reliance 3G Tab	ARM11 800 MHz	512MB RAM	Android 2.3.4	7-inch screen	13,995
Canon PowerShot SX230 HS	12.1MP CMOS sensor	14x optical zoom	IS (Lens-shift)	1080p video recording	17,495
Cooler Master HAF 922	2 bundled / 5 optional fans	13-inch Graphics card supported	Bottom mounted PSU	Excellent airflow	6,800
Logitech G510	18x3 programmable keys	In-built LCD	5 KRO	Integrated volume control	5,500
Logitech G9x	7 buttons + scroll mouse	Adjustable weights	5700dpi sensor	Exchangeable body	5,500



POWER SUPPLY UNITS

Product	Rated power (W)	Certification	Modular	PCIe / CPU / SATA / Peripheral (4-pin)	Warranty (years)	Price (in ₹)
Corsair AX1200	1200	Gold	Fully Modular	6 / 2 / 16 / 12	5	17,000
Seasonic X850	850	Gold	Fully Modular	4 / 2 / 8 / 8	5	10,000
Corsair 750TX V2	750	Bronze	No	4 / 1 / 8 / 8	5	6,200
Seasonic S12II 620	620	Bronze	No	2 / 2 / 9 / 6	5	4,500
FSP Saga II 400	400	80+	No	1 / 1 / 3 / 3	NA	1,900

Sued ReDigi still alive

Court refuses to shut down site selling "used MP3s" <http://slate.me/xNpPoF>

Did you know?

Apps have created half a million jobs since 2007

Price watch



HEADPHONES / HEADSET

Product	Impedance (ohms)	Frequency response (Hz)	Cable length (ft)	Type	Warranty (years)	Price (in ₹)
KOSS PortaPro	60	15-25000	4	Supra-aural	Lifetime	4,000
Ultraone Edition 8	30	6-42000	4	Circumaural	3	88,000
Audio-Technica ATH-M35	65	20-20000	11	Circumaural	2	3,500
Denon AH-D1100	32	5-37000	4	Circumaural	1	9,000
Creative Tactic Sigma	32	20-19000	6	Circumaural	1	4,000



LCD MONITORS

Product	Screen Size (inches)	Resolution	Aspect Ratio	Refresh rate (in ms)	Technology	Connectors	Price (in ₹)
Apple 27-inch display	27	2560x1440	16:9	12	IPS-LED	Thunderbolt (DVI adapter)	57,000
Samsung P2350	23	1920x1080	16:9	2	IPS-LED	D-Sub / DVI	10,800
ASUS PA246Q	24.1	1920x1200	16:10	6	IPS-LED	HDMI / Display-port / D-Sub / DVI	30,000
BenQ G222HDL	21.5	1920x1080	16:9	5	TN-LED	D-Sub / DVI	7,000
Dell IN1930	18.5	1366x768	16:9	5	TN-LED	D-Sub / DVI	5,500

TABLETS



Product	Screen size (inches)	Resolution (pixels)	In-built storage (GB)	Processor / RAM	OS	Camera (rear/front)	Price (in ₹)
Samsung Galaxy Tab 750	10.1	1280x800	16	1GHz ARM Cortex A9 / 1GB	Android 3.1	3MP / 2MP	33,000
HCL ME X1	7	800x480	4	1GHz ARM Cortex A8 / 512MB	Android 2.3	2MP / NA	11,000
BlackBerry PlayBook Wi-Fi	7	1024x600	64	1GHz ARM Cortex A9 / 1GB	BlackBerry Tablet	5MP / 3MP	20,000
Apple iPad 2 Wi-Fi	9.7	1024x768	16	1GHz A5 / 512MB	iOS 5	1MP / 0.5MP	29,000
iBall Slide i7011	7	800x480	8	1GHz ARM Cortex A8 / 512MB	Android 2.3	2MP / NA	13,000

digit KILLER RIGS

Everything you'll ever need to build your own PC. Whatever your budget.

■ Basic rig = ₹21,465 ■ HTPC = ₹23,700 ■ Entry-level Gaming = ₹36,465 ■ Mid-range Gaming = ₹56,630 ■ Ultra high-end = ₹1,68,920

BASIC RIG

Processor	AMD Athlon 2 x2 260	3300
Motherboard	GIGABYTE GA-MA78LMT-S2	2600
RAM	Corsair Desktop RAM 2GB DDR3 1333MHz	700
HDD	Seagate 500GB 7200.12	4600
Monitor	BenQ G610HDAL	3900
Graphics Card	-	-
Cabinet	Cooler Master Elite 310	1900
PSU	FSP Saga II 400W	2000
Speaker (2.1)	Altec Classic Audio BXR1221	1100
Mouse	Zebtronics Judwaa 5 (bundle)	-
Optical Drive	LG 22x SATA DVD Writer	900
Keyboard	Zebtronics Judwaa 5 (bundle)	465
Sound Card	-	-
Total		21,465

HTPC

Processor	bundled	-
Motherboard	MSI E350IA-E45	8500
RAM	Corsair 2GB DDR3 1333MHz	700
HDD	Seagate Barracuda 2 TB	8800
Monitor	-	-
Graphics Card	HD6310 onboard	-
Cabinet	Zebtronics Tambi	2000
PSU	bundled (150W)	-
Speaker	-	-
Mouse	MS Wireless laser Combo XVA-00020	2750
Keyboard	bundled	-
Optical Drive	LG 22x SATA DVD Writer	950
Sound Card	-	-
Total		23,700

ENTRY-LEVEL GAMING

Processor	AMD Phenom II x4 840	5500
Motherboard	GIGABYTE GA-MA78LMT-S2	2600
RAM	G-Skill F3-10600CL9S-4GBNT	1200
HDD	Seagate 500GB 7200.12	4600
Monitor	BenQ G2222HD	7000
Graphics Card	Asus 550Ti	8300
Cabinet	Cooler Master Elite 310	1500
PSU	Corsair CX430	2400
Speaker	Altec Lansing V2621	2000
Mouse	Zebtronics Judwaa 5 (bundle)	-
Optical Drive	LG 22x SATA DVD Writer	900
Keyboard	Zebtronics Judwaa 5 (bundle)	465
Sound Card	None	-
Total		36,465

MID-RANGE GAMING

Processor	Intel Core i5-2400	11100
Motherboard	MSI-H67 MA-E35	4700
RAM	G-Skill F3-10600CL9S-4GBNT	1200
HDD	Seagate 500GB 7200.12	4600
Monitor	Samsung P2350	10800
Graphics Card	ASUS GTX560Ti	12000
Cabinet	Cooler Master Elite 430	2620
PSU	Corsair GS 600	4000
Speaker	Altec Lansing V2621	1960
Mouse	Razer Abyssus (bundled)	-
Optical Drive	LG 22x SATA DVD Writer	950
Keyboard	Razer Cyclosa (bundled)	2700
Sound Card	None	-
Total		56,630

ULTRA HIGH-END

Processor	Intel Core i7-2600K	17500
Motherboard	ASUS Maximus IV Extreme Z	26220
RAM	G.Skill Ripjaws (2x4) 8GBXL	2600
HDD	2x Seagate 1 TB + Kingston 64 GB SSD	16000
Monitor	BenQ XL2410T	25000
Graphics Card	ASUS AMD Radeon HD7970	36000
Cabinet	Cooler Master HAF922	7700
PSU	Seasonic X850 (80+ Gold)	10000
Speaker	Logitech Z506	6700
Mouse	Logitech G9x	5000
Optical Drive	LG 12x Blu-ray OEM RW	6500
Keyboard	Logitech G510	5000
Sound Card	ASUS Xonar DX 7.1	4700
Total		1,68,920

OPTIONAL ACCESSORIES

Speakers (5.1)	Logitech Z5500	18500
Controller	Xbox360 Controller (wired)	1350
Controller	Logitech G25 Racing Wheel	17000
Webcam	Microsoft LifeCam HD	2000
Headset	Creative Tactic Sigma	4000
System Fans	Noctua NF-P12-1300 120mm Case Fan	950
System Fans	Noctua NF-P14 FLX 140mm Case Fan	1050
Sound Card	ASUS Xonar essence STX	9000
USB Hub	Belkin 7 port USB HUB	1000
Wireless router	Belkin surf router (n)	2200
CPU Cooler	Noctua NH-D14	5500
CPU Cooler	Cooler Master Hyper 212 plus	1900
Thermal Paste	Arctic Cooling MX2	500

Samsung Display Division

Samsung separated its loss-making LCD division
 ry merging it with the OLED division
<http://bit.ly/zZNQk0>

Silent PSUs

Cooler Master and Corsair have launched their
 Silent Pro Hybrid and low-noise PSUs in India
<http://bit.ly/AmEDGJ>

A little about online shopping

The dos and donts when shopping in the digital domain

Kapil Rustagi

readersletters@tbinkdigit.com

Online purchase is a trendy way of shopping not only in metros but also in the urban, semi-urban and to some extent, in rural areas as well. Initially, India's online shopping had been a slow and time-consuming journey which did not pick up due to the lack of broadband penetration. Despite functional problems, the rise in online purchases seems to be a consistent trend.

Traditionally, Indians have been conservative in their approach to shopping as they want to touch and feel the products. For example, a typical Indian consumer would assess the weight of a product by hand, which is absent in the online shopping experience. With modernization and a fast paced life, came the constraints of time and eventually, an increasing dependence on online shopping. The current

generation has slowly started shopping online, but is mostly unaware of the pros and cons related to shopping online.

The most common problem is timely delivery, which in very bad cases, may be stretched to many months. Often consumers end up paying enormous sums of money just to pre-book a popular product. There have also been cases where consumers have been handed shoddy goods even though they thought they were paying for a quality product. In online transactions, the consumer and his concerns are more at risk since there is no physical presence of any seller. A basic question which generally arises during a conflict of interest is that of territorial jurisdiction. This basically means that in many cases, Indian courts are helpless to settle a dispute simply because the shop is located abroad. Indian courts do exercise some jurisdiction in such cases where the web-

site is being accessed from India. Having said that, a consumer has to balance his economic interests with the amount of time and money that will be invested in a legal conflict with that company. Even if a foreign company is somehow dealt with by the Indian courts, it remains to be seen whether the company actually submits to that verdict. Keeping this in mind, always buy from trusted, popular portals without being swayed by some sweeping discounts and other gimmicks may ultimately end up costing you more than you might think of saving. If the company gives an option of paying cash on delivery that dramatically minimizes the risk involved. So, be smart enough and exercise patience when purchasing goods online. **fi**



We can help!

If you're facing a problem with your purchase, write to us at help@consumermate.com

COMPLAINTS RECEIVED

Unresponsive customer care

Toshiba Laptop, model no- Qosmio-F60, Webcam issue. I have filed the complaint against webcam issue and submitted my laptop on 22-Nov-2011. After the 6-7 time follow up with Mr. Navin Poojari (9594972860) has not yet resolved the issue. It seems that people are not responding the calls also. The customer service center is really bad in supporting the customers. if it wont resolve my

issue within 2 days. i am going to post my comments in social networking site.

Contacted By: Rohit Prajapati

Answer By Consumermate:

Dear Consumer,
 You can raise your voice on social networking site and at least it might warn prospective consumers about the efficacy of the product. Nevertheless, if you are not satisfied with the services or the product

then you must file a consumer complaint. I would suggest that at this stage you write them a registered letter explaining all the issues in detail. If they do not come up with a solution then go ahead with a complaint in the district forum. I hope some sense will prevail over them at the stage of notice itself and they will sort out things. Please keep a proper record of all relevant documents as they will be essential to file your complaint. **fi**



Ching's Secret

Instant, Hakka & Pad Thai Noodles,
 Soups, Sauces & Miracle Masala

Ching's Khao, Baki Bhool Jao



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www.youtube.com/ChingsSecret



Why Facebook might fail



Will Facebook survive all the pressures that an IPO brings? Sure. Of course. Obviously! It has to... right? How could it fail? You mean... Hmm...

Robert Sovereign-Smith
editor@thinkdigit.com

Disbelief that turns into even the tiniest shadow of doubt. Sound familiar? It's capitalism at it's best (or worst). Just as the banks that were doling out sub-prime loans didn't think it would ever happen to them before the recession, no one ever sees the fire until they're choking on the smoke. Just as in nature, forces beyond control are at play, and despite millions of humans spending trillions of man hours trying to play the prediction game, there's no such thing as a sure shot.

We're no different of course, which is why this story is not called "Why Facebook will fail". Sure, Facebook might just turn out to be the biggest technology company there ever was, and leave us looking a little silly! However, we think it would be even sillier to put on blinders, write fluff pieces about how many zeros we think the Facebook initial public offering (IPO) will yield, and get drunk

with everyone else who has delusions of grandeur – as if having a Facebook account entitles you to stock options!

Actually, we're not exactly known to be a sober, rational and serious bunch here at Digit, but we're certainly not drunk enough on Facebook's success to avoid noticing the rather large pink pachyderm that's standing quietly in the corner, just itching to start a stampede!

In high spirits

First up, let's look at all the numbers that cause so many of us to get as wobbly-kneed as a baby taking its first step.

Facebook is a very, very successful business indeed; and yes, it's a business, not just some place you go to "Poke" buddies, "Like" new haircuts and share photographs of aforementioned wobbly-kneed behaviour with friends... Thanks to the IPO that's got the world talking, we know that Facebook earned about \$3.7 billion in 2011 – of which about \$1 billion (over 25 percent) was net profits!

So where does the \$100 billion number that's being thrown about so avidly come from? It's a made up number that's basically telling people that because Facebook earns nearly \$4 billion a year in advertising, with growth, it will be worth much, much more in the long run. Theoretically, if you happen to have \$100 billion lying about, you could buy Facebook for yourself, and earn many billions on it in the long run.

However, everything about a company decides the value of said company on the stock market. If Zuckerberg, and all the major people who run Facebook were to sell most of their stock, or resign, you can bet your britches Facebook stock would plummet, and obviously not be worth anywhere close to \$100 billion anymore. The same applies to how you use Facebook – if the majority stops spending so much time on the site (close to 30 minutes a day on an average across 800+ million users), stocks plummet. There are a million more ways in which said stock can fall or rise. It's all speculation based, and even rumours can affect stock prices.

What's guaranteed though, is the fact that once a company goes public, it appoints a board of directors, and the sole aim of that board is to ensure that its investors make more money (or that stock prices, and company value as a result, go up). In other words, it becomes

"We are not going to see the flood of IPOs that happened during the late 90's. The rules of the game have changed. The infrastructure to facilitate IPOs is no longer there, and the regulatory environment has changed."

Vivek Wadhwa,
Washington Post

a serious business. So how does this matter to any of us?

Let's raise our glasses...

There are quite a few ways the IPO is going to make things better at Facebook, not just for the people getting rich overnight, but for the business in general and for you as well...

To start with, all the hype around the IPO has meant that everyone, us included, is publicising it like anything. Not that Facebook needs any publicity, of course, but with minute analysis of almost everything that Facebook does from here on guaranteed, it's quite possible that time on site for people might actually go up as they try out more of the new features that are sure to crop up soon.

An IPO raises money, not just for the people who own the company, but also for the company itself. With more money, you get more features, more reliability, quicker bug fixes, and as a result, a much better all-round experience. Facebook will also hire more people now, and will probably open up new offices across the globe, giving a select few a chance at a career with the company.

Another huge advantage that comes with raising billions overnight is the purchasing power that Facebook will now have. It's not just about hiring people, it will also give Facebook the ability to buy out companies and enhance features with the products they buy. You can also bet on the fact that such buyouts will bring more minds to the boardroom, all working together on making you like the site even more.

A really good reason for us to like the IPO is the fact that public companies have more transparency by law – at least financially – and that ought to mean that we'll be more aware of how our data is being used...

...and on that note:

Why Facebook might fail

Transparency is also in a sense an evil in this case, because people start realising just how much money is being made off their data. It also brings to light some interesting findings, such as the fact that about 12 per cent of all



"I will let someone else take up the moral issues and I will stick to the business point: I don't think that Facebook, with its messianic ambitions and squirrely zeal, is actually ready for the harsh light of public company life. Even though it comes to market with the weight and hegemonic feel of the biggest brands, it has grown up in such a bubble of cultishness and doctrine, that primetime scrutiny could shortly become very uncomfortable."

Michael Wolff, Columnist, *The Guardian* - <http://bit.ly/wYJLII>

Facebook revenue in 2011 came from Zynga (the FarmVille guys), where 85 per cent came from advertising. To increase profits, it's obvious that advertising is the way to go, and you can start expecting more and more of that aspect to be given importance. For you, that translates to being urged more to click on and use games and apps and more in your face advertising.

"If Facebook's offering ends up being the advertised \$5 billion, and the company's stock market valuation is in the expected \$75 billion to \$100 billion range, it means that only 5 to 7 percent of the company's shares will be available to public investors."

Allan Sloan, Senior Editor at large, *Fortune magazine* -

<http://wapo.st/yU3gf3>

As with every other public company, the emphasis will be on making more money. Now this is usually fine for a products-based company such as Apple or Microsoft, because they have avenues such as advertising to push their products

more and create more desire for said products. For service-based companies such as Google and Facebook, you're the product. It's a total numbers game, and this is what complicates matters.

With Google, the success mantra was not just to provide the best service, it was also to provide a service that pretty much no one could survive without. While

Google is nothing more than an advertising company, Search was that service that got us all hooked by the time the company went public. Another great purchase on its part was YouTube, which, as bandwidth increased, was another aspect of the web that got really popular, and is as ad friendly as the standard television.

With Facebook, the hook is other people, friends, e-socialising, a little gaming and... well that's about it. You mostly use Facebook to search for other people or interests, and you're not really looking for ads – in fact, you hate people who spam your wall or feed with anything that sounds even remotely like an ad.

Social vs Search

Imagine a scenario where you want to buy a new phone (and are thus suddenly very interested in advertisers): you might go to Google (or Bing, if you work for Microsoft) to find out where you can buy a phone, what people are saying about phones, which phones match your budget, how a particular model you're interested in fare in reviews on sites such as thinkdigit.com, etc. You may even go on Facebook and announce that you plan to buy a phone, or ask people what they think, and you'll definitely announce to your Facebook friends once you have bought said phone... heck maybe you'll even upload a few pictures of you hugging or making out with your beloved new phone... Once friends see your new phone, let's assume even one of them immediately decides that he'd like to be as happy as you're, and buy the same phone. Even if there's a Facebook ad for said phone staring at him in the, err, face, he'll still decide to Google (as a verb) the cheapest price in his area for said phone, look up user reviews and do all of the same research you did, but the chances of him clicking that Facebook ad are lower... get our drift? It's all just conditioning,

and Google's got us conditioned a little better to accept that it's the service to use to find answers to serious questions.

To put it even more simply, it's OK to be an idiot on Google, but embarrassing if you're one on Facebook!

That may look like a harmless sentence, but it defines how we use those two services. We use Google to get knowledge, and use Facebook to "show off" that knowledge. In essence, although many would believe that we're more "real" on Facebook, we're actually more "real-world" on Facebook, exhibiting all our insecurities and donning all our masks to hide our flaws - an online version of us at a party or social gathering. Hardly "real". Advertisers are more interested in your real needs, and not your opinion. They want you when you're questioning things like "What should I buy", "Where should I buy from?", etc., which is something we seem to be more open about to a search engine, obviously.

Cleaning up after the party

One of the other things Facebook has to worry about is the fact that a lot of its people are going to get rich. It's a good problem for the people to have, but not for the company. It's common for thinkers

"For a site that makes almost all its money from advertising, and which claims 96 of the top 100 US advertisers as customers, Facebook harbors a dirty little secret: Marketing on Facebook doesn't work very well. In fact, user engagement rates on branded pages are declining rather than increasing, and most large marketers tell us they simply haven't gotten much value from their Facebook investments."

Nate Elliott, Forrester
<http://bit.ly/A3wIjJ>

who get rich to want to branch out on their own and start something of their own. The entrepreneurship bug has been biting people for ages now, and especially in the technology field, it seems to be biting hard.

Chamath Palihapitiya, "VP of Growth, Mobile, and International" at Facebook, quit last year to go off on his own. His goodbye note was published online at

TechCrunch.com, and some of his words were quite interesting:

"We risk becoming like everyone else. the only chance we have is the discipline and resolve of the silent majority who needs to and MUST become more vocal as the company gets bigger. fight for the culture the way it should be...not the way it was or the way its becoming."

The part of his farewell speech that's most interesting to us is: "Be afraid of the company you don't know. There is someone out there lurking with a small idea that will grow into a giant."


That's what we feel is Facebook's biggest threat - the unknown competition. We users are a fickle bunch, especially when the services in question cost us nothing. If Google pushed too much advertising too soon, we'd all be using some other search engine today. Facebook is massive, and has close to a billion people on it already, but that means its growth in user base will start slowing. If we look at Twitter, LinkedIn and GroupOn, who went the IPO way, and currently sit on share prices that are way below opening day, Facebook has a tough task ahead if it's to break the social networking IPO trend.

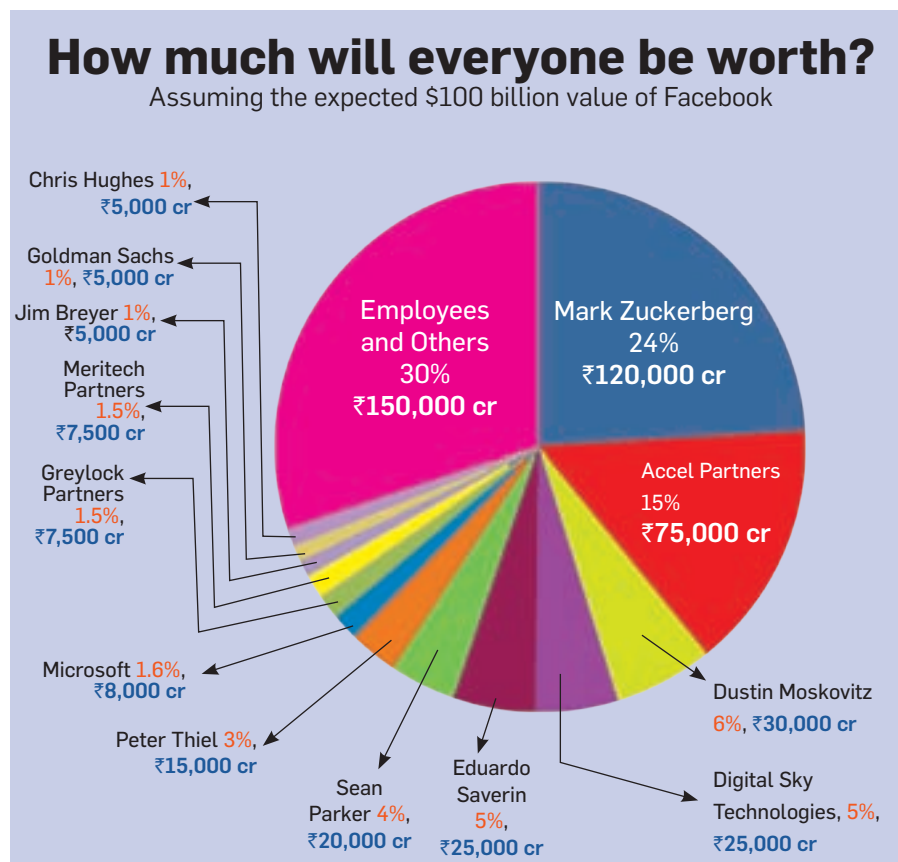
What if it fails?

Billions will be lost or earned off the stock market if such a doomsday scenario were to occur, of course. To you and me, well nothing, really. We'll just shove off to Google+ or some other me-too new service that's hot at the time.

Perhaps, it would spell the death-knell for Internet businesses. Who's going to invest in such businesses? If a service as big and popular as Facebook can fail, what's to say everything else won't?

Remember MySpace? You know... that other social network that overtook Google in terms of traffic a few years ago, and promised to be The Next Big Thing!™ It was bought up by News Corp in 2005 for \$590 million and sold in 2011 to Justin Timberlake and others for \$35 million.

Yes, the web is a fickle beast, and it would be very silly indeed to think this couldn't happen to Facebook, or any other such service, for that matter. For now, those serious about their networking skills should make sure they give their Google+ account some love as well, and also remember to take offline backups of Facebook data from time to time. 

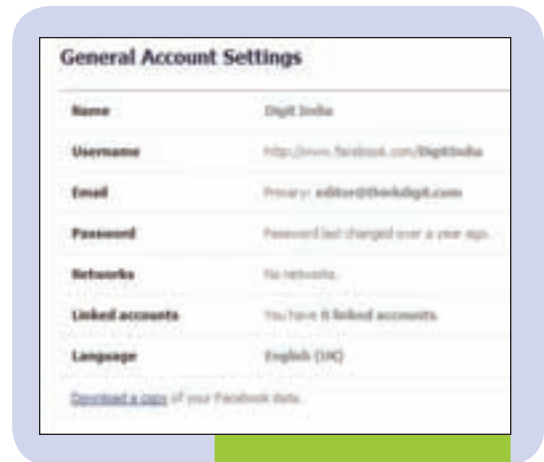


Back up your data

It's probably wisest to keep backing up your Facebook account data. Not that we think it will shut down or anything, but servers are known to crash, and accounts have been deleted or hacked into in the recent past...



◀ **STEP 1**
Click on Account Settings

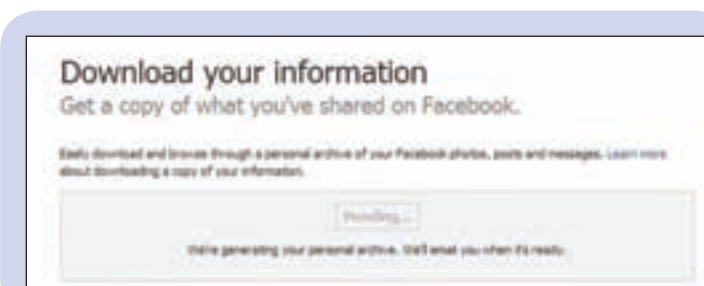
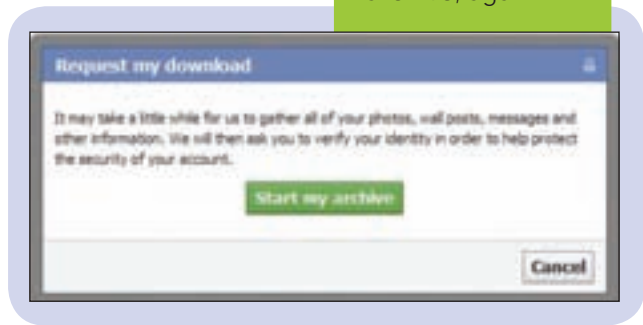


▲ **STEP 2**
Click on Download a copy of your Facebook data

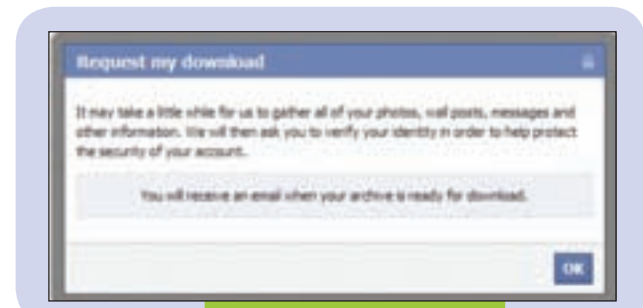


◀ **STEP 3**
Click Start my Archive

▼ **STEP 4**
Click on Start my archive, again



▲ **STEP 6**
When it's ready, Facebook will give you a link back to here and you can download it



▲ **STEP 5**
Click on Download a copy of your Facebook data

Who's making money off your data?

Here are some of the businesses that are getting rich off of your need to Like, Poke and Share



Robert Sovereign-Smith
 editor@thinkdigit.com

What is it we really do on Facebook? Most of it isn't really constructive, but then it wouldn't be as popular if it weren't buckets of pointless fun, would it? Socialising online is pretty much all any of us have time for these days, and we like sharing our lives with "Friends", and even playing voyeur, snooping about in other people's business. However, to do so, we have to add in a lot of information about ourselves.

Real email addresses are just the start of it. With everything going mobile, most of us also have our phone numbers up there. The rest of the information that the corporations of the world want about us, such as what we buy, how we spend our money, which places we travel to, etc, isn't something that needs to be weaned out of us anymore – we're happy to publicise it ourselves.

We've had social networks for a long time now, starting with the bulletin boards, and then moving on to IRC, forums, dating networks, etc. However, what made Facebook a runaway success was probably the epic timing. Friendster tried something similar between 2002 to 2005 – about the

time when Mark Zuckerberg was just getting his brainwave – but was quite simply way ahead of its time. Facebook, on the other hand, opened to the public and shot to stardom because it came at a time when all of us net junkies were just getting over our need to be anonymous online. Thanks to the blogging culture and sites such as YouTube making us famous, people realised the value of being "real" online. So when this site came along that required you to be yourself, and network, primarily, with people you already know, it was obviously well received.

The real you

Now we get to the reason for that rather long (and perhaps, seemingly pointless) introduction. The "real you" is what advertisers, businesses, spammers, and almost anyone running a net business are interested in. Before Facebook, many of us used disposable email addresses to register at sites – services such as mailinator.com helped – because spam was to be avoided at all costs. All of those email addresses were of no real use to businesses that wanted to bombard you with ads and offers. Plus, even if you did provide your email address, your spam filter would take care of such mails anyway – much like it does now.

Imagine the parties that were thrown at online business houses when we changed the very way we conducted ourselves online – instead of guarding our data like paranoid conspiracy theorists, we started posting it all online ourselves!

Thanks to Facebook, and the popularisation of apps, much more about you is now known to those who have an interest in you. Now we're not suggesting that you're being exploited worse than a slave in the wild west. Quite the contrary, you actually enjoy all the freebies thrown at you by such companies, and letting them know which school you went to, where your last holiday was or which restaurant you just

"checked into" really doesn't bother you as much as it used to. We assume that last bit of course, because the data suggests so.

That said, let's look at some of the businesses who make considerable money off you and your personal data:

Zynga

Everyone who has a Facebook account would have heard of *CityVille*, *FarmVille*, *Mafia Wars*, and other Zynga games. Although it isn't the only way to play some Zynga games, many of the popular ones are tied solely to Facebook.

Zynga is famous for making simple and addictive games that make you spend hours a day on them. From personal experience we can tell you that FarmVille is our most hated / loved,



The Wisdom Control Panel. Making sense of your friends' data

App	Age	Gender	Location	Education	Work	Relationship	Interests	Activity
Facebook	25-34	Male	India	High School	Software Engineer	Single	Technology, Music	Active
WhatsApp	18-24	Female	India	College	Marketing	Married	Shopping, Travel	Active
Skype	35-44	Male	USA	University	Business	Single	Finance, Sports	Active

Wisdom Network's data about Indian FB users as a whole only those who 'have installed the Wisdom app', of course

App	Age	Gender	Location	Education	Work	Relationship	Interests	Activity
Facebook	25-34	Male	India	High School	Software Engineer	Single	Technology, Music	Active
WhatsApp	18-24	Female	India	College	Marketing	Married	Shopping, Travel	Active
Skype	35-44	Male	USA	University	Business	Single	Finance, Sports	Active

All the stuff our friends like

depending on whether you're in charge of making the most of man hours or not.

So what does a company that makes free games on social networks have that values it at above \$7 billion (that's about ₹. 35,000 crore)? You, of course!

With banner ads, video ads, product placement, and the real cash cow – cash for cows! Well, not really cash for cows, but a dollar or two for virtual goods, or the ability to keep playing... Multiply that dollar or two into even a fraction of the 50 million daily players, and you get your "Aha!" moment.

We're pretty convinced Zynga employs psychiatrists as game designers. The games are designed to progress slowly, and in spurts, taking advantage of some basic human traits – addiction, impatience, obligation and individuality. So you build a farm to suit your individuality, and are obligated to help those who help you, are thus addicted to the game, and since there's no real end to it, you get impatient and are willing to pay to speed up your progress. Ingenious!

Plus, of course, Zynga has all your information to make a profile of you. Sure, it may not sell that information it has about you as an individual, but you still figure as part of a group or demographic, and that information they're free to sell.

Wisdom (and other services)

Thanks to Facebook, we know that our Digit account on Facebook is liked or added as a friend mostly by males (~90 percent), most of them between ages of 13 to 34 (91 percent), with the 18 to 24 age group being the most popular (60 percent). After India (obviously), Nepal is the country where we have the most Digit fans, followed by the US and Pakistan a distant fourth.

However, we can get more information about you, just by installing an app called Wisdom (www.wisdom.com). From there, we can get additional data – for instance, we know 81% of our followers are single, most are talking about Class 12 board exams, the most popular check-in place is Mumbai's Chhatrapati Shivaji Airport, the most female followers of Digit are from New Delhi, and yes most are single, and we can even tell who the most influential followers are...

Note: We installed the Wisdom app only recently, specifically for this article, and honestly, we couldn't care less how many girlfriends or boyfriends you have, what your age is, how you spend time on

Facebook, or for any of the data that the app gave us. However, it's our duty to let you know that such tools are available, and are being used to neatly sort and categorise you and your actions into neat little piles for later use by various companies.

The screenshots will tell you more (actual data or names are blurred to protect identities), but there are many such companies out there that mine Facebook data. It's always with permission, of course, but how many of us actually pay attention to what data apps gather about us. You want to install something, you click OK. It's that simple.

All the others

The brilliance of Facebook – for you, developers and most of all marketers – is that it takes being social to all new levels.

Imagine a world where pretty much any of your hundreds of friends knew all there was to know about you, and pretty much all of them were itching to tell absolute strangers your secrets... That shouldn't sound alarming at all, because that's exactly what Facebook is (other social networks too).

One of your friends adds a quiz app. Why? Because she (or worse, he) wants to know "Which Sex and the City Girl" she (or he!) is. Seems rather pointless, but harmless. However, the problem is that many such apps request a level of access to your friend's profile that really shouldn't be granted.

If you take your privacy seriously, have painstakingly sorted each and every friend into groups, and then spent hours setting strict security and privacy permissions for each one of those groups, and even gone to the extent of ignoring all app requests... it's all pretty useless. Rogue app developers can still get all the information they need about you, because their apps can have the same level of access to you as you've allowed the friends who have installed said apps!

This is why you'll find countless articles online that urge you to delete apps you don't



81 per cent single - come on guys!




The truth about Truths About You



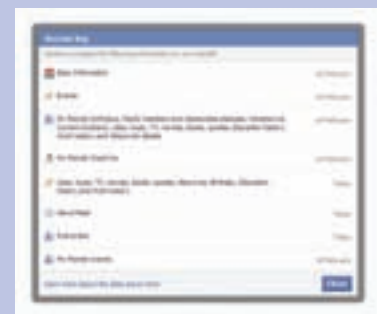
CityVille wants to post to Facebook as you

use, and even some that will advise you to choose your friends on social networks as carefully as you would in real life.

Not that anyone ever will of course, because it's just too irresistible to have as many friends as you possibly can online, and of course, you'll still want to know the answer to the important questions in life... So which Sex and the City Girl are you anyway? 

OUT DAMNED APP!

Seeing which apps have access to your profile is easy. Just go to Account Settings > Apps. You will see a list of apps you have installed and more information, such as what type of data apps accessed, and when. If you want to delete an app, just click the cross mark next to it.





Meet the Challengers

With social networking skills becoming almost a requisite for success these days, can you really afford to put all your eggs in one basket?

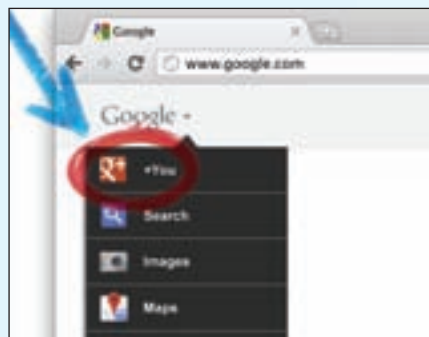
Ravi Sinha
readersletters@thinkdigit.com

Friendster, Myspace, Orkut, Livejournal... Facebook's had a number of victories since its inception in early 2004. Zuckerberg and crew work around the clock to provide the social network for 800+ million (and growing) users. Social gaming, subscriptions and new features such as the Timeline ensure that the online world continues to spend hundreds of millions of man hours on the site every day!

However, as we all know, the world has moved towards evaluating your "worth" (as a friend, colleague, employee and generally all-round human being with a life), based on how active, popular and witty you come across online. In such a scenario, it defeats the purpose to depend on just one service to network with, and thus the point of this article.

Google+ Have you +1-ed yet?

Google+ launched last summer bringing features such as Circles (to organise friends into neat little groups) and Hangouts (to create group chats and record impromptu video webcasts). Google+ interconnects very well with all the other Google services – search, Gmail and YouTube to exploit the new +1 option for various impacts on SEO and surfing.



Google+ is perhaps the second most talked about networking site today

Many users reportedly switched to Google+ from Facebook, mainly because of Google's assurance that personal information would never be shared with third parties – something Facebook can't offer. Google+ already has 90+ million users, and at the rate of growth we've seen, 400 million users by the end of this year looks oddly feasible.

Tumblr Microblogging made simple

Home to more than 44.3 million



Tumblr's micro-blogging is a favourite among teens and college students.

“tumblelogs”, Tumblr took the blog form and made it its own. Its interface is easy to use and accessible, with apps for iPhone and BlackBerry devices. In fact, many believe that Facebook increased the character limit for status updates in response to Tumblr’s growing popularity. Of course it doesn’t offer as extensive a feature-set as Facebook does, but it’s certainly the easiest to use micro-blogging site around for those less interested in Likes and Pokes!

LinkedIn Digital head-hunting

Although a lot of people may network with colleagues and clients on Facebook as well, LinkedIn is the professional’s choice for business networking. Facebook is looked



LinkedIn means business - and it doesn't disappoint

upon as too informal, as compared to LinkedIn, especially in corporate culture.

On LinkedIn, Friends are “Connections”, and how well you know someone depends on how short that connection is. For example, direct connections are most likely colleagues or your direct clients, while second-degree connections are sort of like friends-of-a-friend. Third-degree connections are friends stemming from



Twitter's simplicity and addictiveness attracts everyone, including celebrities.

second-degree ones, and so on. The major advantage of LinkedIn is that you will meet professionals from all over the globe, and it’s all work-related networking – no more stupid baby pictures and dumb wall posts to sort through. This is why it’s also important that you stay serious on LinkedIn, to avoid making a fool of yourself on a global corporate scale.

Apart from being able to connect with industry bigwigs, there’s a very HR (human resources) side to LinkedIn. For example, you can ask people you’ve worked with at any time of your life to give you a “Recommendation”, much like you might do for a CV, but this will be visible to hundreds of thousands of potential clients and employers who form a part of your Connection chain. These days, it’s a safe bet to assume that HR representatives at a company you’ve applied to are looking for your LinkedIn profile.

It’s also a great way to find new job opportunities, get new ideas, and interact with some really intelligent and successful folks. Using LinkedIn Answers, you could ask the LinkedIn community any questions you have, and you get more credible answers from qualified professionals. It’s sort of what Zuckerberg tried to do with Quora.

Yes, LinkedIn doesn’t have Farmville, all of your friends or the best place to find a date, but thanks to tight-knit policies, it’s a great resource for those serious about their careers. The amount of friends, dates and fun you have (in the real world) are usually directly proportional to your success. Remember that the next time you get online.

Flickr The next level of photography

Cross a microblogging site with a social network, throw in some amateur photography/videography for flavour and garnish with the creativity that users display on sites such as deviantArt. Now add a side order of e-commerce by way of stock photography royalties and you



Flickr is a great platform for amateur and professional photographers alike

get Flickr. A site that has more than 32 million users and 6+ billion photographs.


Owned by Yahoo!, free accounts are capped to uploading a maximum of 300 MB of images and two videos every month, and “Pro” accounts get unlimited bandwidth (for a price). Tagging is taken to a greater degree with sets of tags or tag-clouds for images. Results can be geo-tagged onto maps, and can then be shared online – providing people with a view from the ground. This idea has been taken further with OpenStreetMap where cities such as Sydney and Tokyo have been mapped thusly.

If you’re serious about photography, and are unhappy with Facebook’s limited features for albums, Flickr is the place to be.

Twitter The #revolution begins here

Twitter was the go-to tool for status updates and short messages before Facebook. In fact, for quick updates, breaking news, and for the twitterati, it’s still the only place to be. With over 300 million users tweeting every day, including perhaps every celebrity you’ll want to follow, it’s easy to see what the fuss is all about.

It’s also the most promising mobile-friendly, social network, because of the 120-character limit. From celebrities to religious figures and presidents of countries, every one’s on Twitter, and you can be sure to find what the world is currently talking about by looking at the topics that are “trending” on Twitter.

Although it really doesn’t replace any of the other social networking sites, it’s still a great way to network and keep yourself updated with what’s making headlines, what’s hot and what’s not across the globe, or even in your city! 



why facebook might succeed !



In order to ensure that we do not get too much egg on our collective faces, here's an article that ensures we're safely perched atop the proverbial fence!

Robert Sovereign-Smith
editor@thinkdigit.com

The aim of the stories that you've read on earlier pages was to inform you about some of the problems that Facebook will face after going the IPO way, to ensure that you know how your data is being put to use, and to pass on the important message that you should really broaden your horizons and not ignore other services.

Think of it like something akin to making it a point to use Bing every now and then, especially when Google's not giving you the results you want – you never know, you might actually discover something cool, or get an edge over others by diversifying... and of course, there's also the possibility you might not...

As a more tech-savvy community than the general public, we're pretty sure most of you reading this issue will understand our aim here. Some of you may already think exactly the same way, and some of you will, no doubt, wonder what we've been smoking!

Addiction

The way Facebook's taken off, and the sheer amount of time people spend on it, it's obviously a great online substitute

for real interactions that are few and far between as our lives get busier. Since 800+ million people are already on it, unless some other service starts offering hard cash to close your Facebook account, there's no way the world's getting off it.

We're addicted, and there's no two ways about it. There's just something to be said for being able to find almost everyone you know who's net-savvy, all in one place, all from one account. The sheer convenience of it is unbeatable already, and everyone else is just left playing catch-up, perhaps for good.

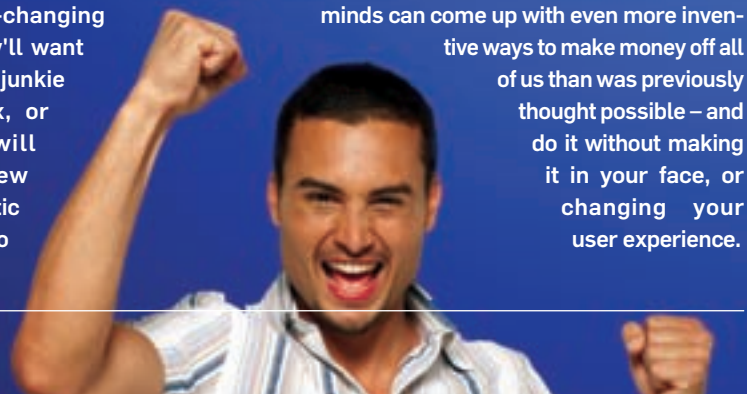
Even a mammoth internet company like Google can't really compete with its Google+ network, simply because it's just that far behind. Online socialising, for the foreseeable future (which in internet time, is about 16 months!), will pretty much be dominated by Facebook, and it has to be said, either some other service is going to have to come up with a game-changing feature that w'll want as badly as a junkie needs his fix, or Facebook will have to screw up on a galactic scale for this to change.

It's all about the money

IPOs bring money, money buys more employees, more employees means slicker code, better ideas, and all of that together makes for a better service that will addict us even more.

If anything, Facebook has dominated the social networking scene despite going up against big companies with deep pockets. Google had more cash to splash than anyone, and MySpace had News Corp money behind it (for quite awhile until it was sold to Justin Timberlake and others), and yet it didn't seem to even dent Facebook's progress. So what can we expect when Facebook gets a few billion dollars to play with as they see fit?

What IPOs also bring about is a board of directors that have a very direct say in how the company is run. You can bet some of the smartest financial people on the planet will be looking to ensure their investment in Facebook doesn't fall flat. Perhaps all those minds can come up with even more inventive ways to make money off all of us than was previously thought possible – and do it without making it in your face, or changing your user experience.



Wooing advertisers

With other forms of media and advertising pretty much saturated, the one place ad revenues are set to grow is online. Over the past decade we've seen radio ad spends fizzle out into nothing. Print is headed the same way pretty soon, with hundreds of thousands of news papers and magazines closing all across the globe, the shakeout's already happened, and weaker publications will be weeded out over the next few years. Television is going as strong as it can be, and despite hundreds of channels available, most ad slots seem to be filled. With just 24 hours in a day, and prime time slots pretty much dedicated to the huge corporates, where does everyone else go?

To Google, of course. With revenue per quarter in the billions (something like \$10 billion in the last quarter) Google dominates the Internet advertising market. Of course, this may not change very quickly, but it may not stay that way forever either, all because of one major factor.

The one thing that Facebook has to offer – with genuine reliability – is real people, with real information about them. Internet advertising works on impressions and clicks, and no one really knows too much about who is seeing those impressions and who clicks – unless there's a sign-up process involved, which automatically reduces the numbers involved.

With Facebook, companies have the ability to target not just age groups, but geographical locations, cities, towns, gender, and even interests. That's just an unbeatable option for smaller businesses who don't have the mammoth budgets of corporates. Let's say you run a video game business in Mumbai and Delhi. With Facebook ads, you could target young males (ages 13 - 24), only from Mumbai and Delhi. It's cheap, and can get a decent amount of branding for your small business with Facebook exactly at your target audience – no wasted time and money!

Thus, the big business spends will remain divided across the advertising giants that be, but we see tremendous potential for Facebook to corner the market on small businesses. Given that small businesses contribute, very roughly, between 30 and 50 per cent

to a country's GDP, that's also a huge untapped market, especially with the next generation of entrepreneurs sure to be technology and net savvy!

On the go

Mobile net access platform is pretty much where Facebook will make or break it – as will Google. Companies in general haven't really found a good way to monetise it in terms of ads, and with the skyrocketing number of mobile users across the globe, you can bet on someone figuring out a way to do exactly that.

Google has a big advantage with its Android platform that's taken off like wildfire. Facebook on the other hand has an app that leaves a lot to be desired – especially on slower Indian networks.

However, it's not just a question of ads, it's a question of usage patterns. Although a lot of people do Google searches from mobile devices, we've all become so used to the format the results are displayed in that we're less likely to click on an ad from a mobile device. However, most people will probably have the Facebook app running all day on their handheld devices, and check it several times a day to reply to messages or wall posts, update profiles, check-in to places, upload photos, etc.

Rumour has it that by the time you get this magazine, Facebook will have announced a mobile advertising strategy. Some say that the recent acquisition of mobile payment collection company Bango points in this direction, while perhaps there's something completely different being plotted. For example, what Bango will enable Facebook to do is to purchase apps, digital stuff for Zynga's games, or even goods from Facebook's other clients, without the pain of needing to fill in credit card information. Want to buy something via the Facebook app? Just click buy and the amount is automatically added to your mobile bill (at least in the US and some other countries).


We spent some time looking at how Team Digit uses their phones, and Google Maps for directions is certainly one area where Google rules, but when people unwind, it's games, YouTube and Facebook all the way. We're pretty sure that Facebook will figure out a way to mon-

etise the mobile platform – it has to in order to keep growing.

Oh the humanity!

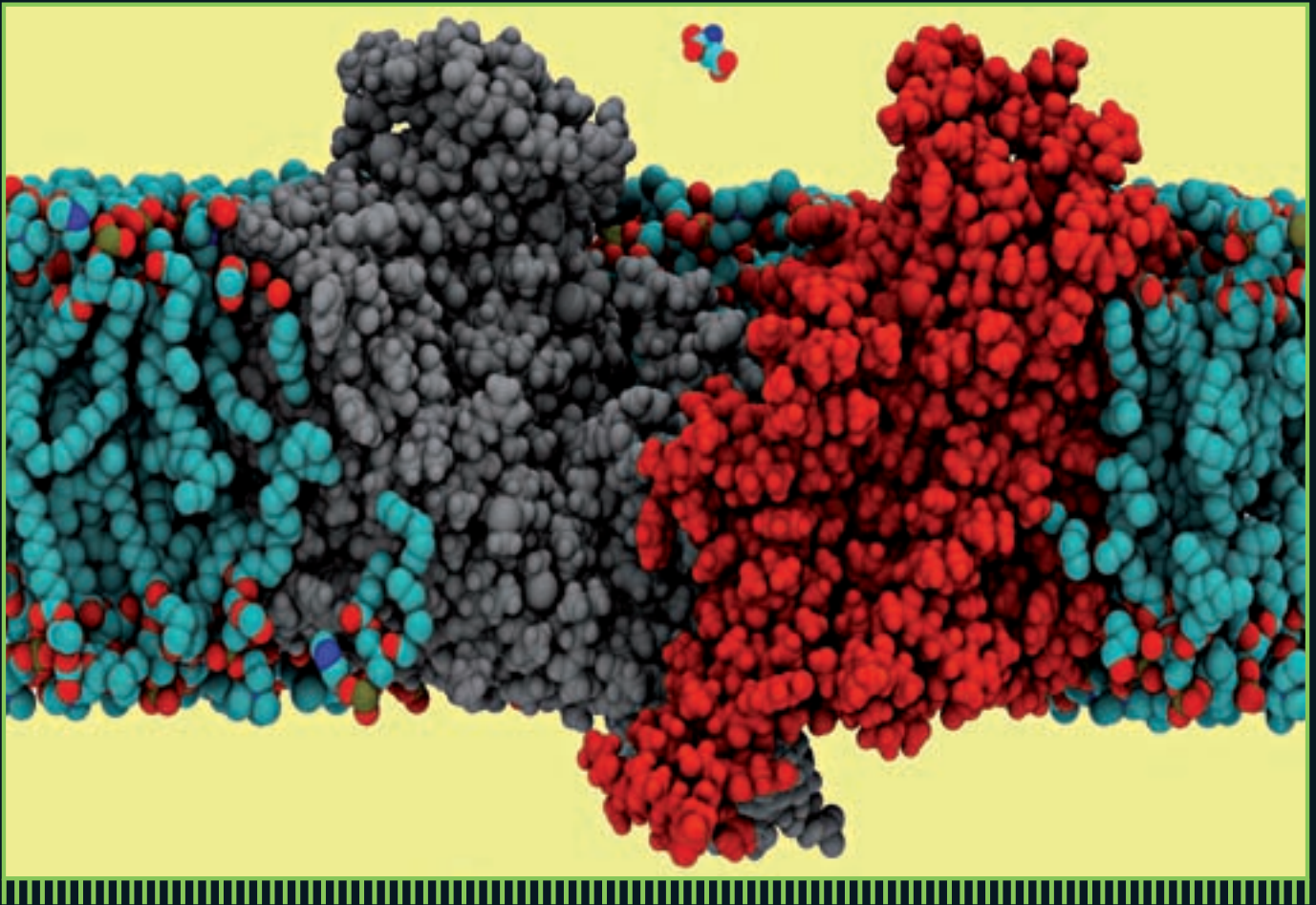
The biggest reason we think Facebook will be successful is basic human nature. Unlike Google, where we go to find out stuff, usually with a purpose, and more often for work-related queries – not counting the billions of searches for porn and such. Basically it's a transactional relationship with Google. You want something – answers, web sites, information, directions, check email, etc. – it provides it to you. You know what you're looking for when you do that, and yes, you'll click on ads when they seem to be the answer to your query.

On the other hand, Facebook is a place you go to unwind, chat up with friends, show off pictures of your trip to the Himalayas, or just snoop on your friends. You're more relaxed when you do this, more open to clicking on links that seem funny, more open to spending money on having some fun. You don't mind spending a small amount on *FarmVille*, so long as you get your fix of pointless fun. You might buy a product on a whim when you're relaxed and having fun – provided it's not a pain to do so.

In general, Facebook has you by the err, ears, when it comes to keeping you hooked. It's not as focused as every other popular site out there, and that's its biggest strength – giving it the opportunity to diversify and attempt to find new ways to make money off your addiction to fun. 



BEYOND GAMING



WHAT IS GPU COMPUTING?

GPU computing or GPGPU is the use of a GPU (graphics processing unit) to do general purpose scientific and engineering computing.

The model for GPU computing is to use a CPU and GPU together in a heterogeneous co-processing computing model. The sequential part of the application runs on the CPU and the computationally-intensive part is accelerated by the GPU. From the user's perspective, the application just runs faster because it is using the high-performance of the GPU to boost performance.

The success of GPGPUs in the past few years has been the ease of programming of the associated CUDA parallel programming model. In this programming model, the application developer modify their application to take the compute-intensive kernels and map them

A LOOK AT THE OTHER SIDE OF GRAPHICS CARDS APPLICATIONS BEYOND MERE GAMING

to the GPU. The rest of the application remains on the CPU. Mapping a function to the GPU involves rewriting the function to expose the parallelism in the function and adding "C" keywords to move data to and from the GPU. The developer is tasked with launching 10s of 1000s of threads simultaneously. The GPU hardware manages the threads and does thread scheduling.

The Tesla 20-series GPU is based on the "Fermi" architecture, which is the latest CUDA architecture. Fermi is optimized for scientific applications with key features such as 500+ gigaflops of IEEE standard double precision floating point hardware support, L1 and L2 caches, ECC memory error protection, local user-managed data caches in the form of shared memory dispersed throughout the GPU, coalesced memory accesses and so on.

CUDA PARALLEL ARCHITECTURE AND PROGRAMMING MODEL

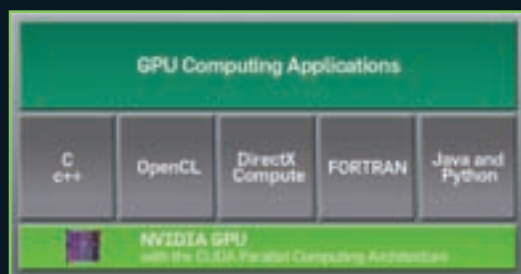
The problem was that GPGPU required using graphics programming languages like OpenGL and Cg to program the GPU. Developers had to make their scientific applications look like graphics applications and map them into problems that drew triangles and polygons. This limited the accessibility of tremendous performance of GPUs for science.

NVIDIA realized the potential to bring this performance to the larger scientific community and decided to invest in modifying the GPU to make it fully programmable for scientific applications and added support for high-level languages like C, C++, and Fortran. This led to the CUDA architecture for the GPU.

The CUDA parallel hardware architecture is accompanied by the CUDA parallel programming model that provides a set of abstractions that enable expressing fine-grained and coarse-grain data and task parallelism. The programmer can choose to express the parallelism in high-level languages such as C, C++, Fortran or driver APIs such as OpenCL™ and DirectX™-11 Compute.

The CUDA parallel programming model guides programmers to partition the problem into coarse sub-problems that can be solved independently in parallel. Fine grain parallelism in the sub-problems is then expressed such that each sub-problem can be solved cooperatively in parallel.

The CUDA GPU architecture and the corresponding CUDA parallel computing model are now widely deployed with 1000s of applications and 1000s of published research papers. CUDA Zone lists many of these applications and papers.



REAL WORLD APPLICATIONS

With millions of CUDA-enabled GPUs sold to date, software developers, scientists and researchers are finding broad-ranging uses for GPU computing with CUDA. Here are a few examples:

Identify hidden plaque in arteries: Heart attacks are the leading cause of death worldwide. Harvard Engineering, Harvard Medical School and Brigham & Women's Hospital have teamed up to use GPUs to simulate blood flow and identify hidden arterial plaque without invasive imaging techniques or exploratory surgery.

Analyze air traffic flow: The National Airspace System manages the nationwide coordination of air



QUADRO Q6000 IS BUILT WITH ADVANCED FEATURE SETS INCLUDING AROUND 6 GB OF FRAME BUFFER, CAN PROCESS AROUND 1.3 BILLION TRIANGLES PER SECOND


traffic flow. Computer models help identify new ways to alleviate congestion and keep airplane traffic moving efficiently. Using the computational power of GPUs, a team at NASA obtained a large performance gain, reducing analysis time from ten minutes to three seconds.

Visualize molecules: A molecular simulation called NAMD (nanoscale molecular dynamics) gets a large performance boost with GPUs. The speed-up is a result of the parallel architecture of GPUs, which enables NAMD developers to port compute-intensive portions of the application to the GPU using the CUDA Toolkit.

THE RIGHT CARDS

You may be wondering that with such a change in the use case scenarios - from pure gaming to visualization and computing - which cards would be the right fit.

Quadro series of cards from NVIDIA fit that bill. If you are the kinds who uses a lot of 3DSMax or Maya, then you are bound to need a lot of graphics horsepower for faster rendering of your 2D images. Quadro cards, for instance the Quadro Q6000 are built with advanced feature sets including around 6 GB of frame buffer, can process around 1.3 billion triangles per second, etc. These are capabilities that work well for professional applications for instance larger onboard memory means that you can render larger and more complex scenes. Also with a processing power of over a billion triangles per second, the rendering will be much faster on a Quadro card than a GeForce one, and definitely at much lower load temperatures than GeForce cards - thereby increasing the life cycles of such cards. A Quadro card comes with a 3 year warranty as opposed to a standard GeForce gaming card which has a 1 year warranty.

Pricing of these professional cards is much higher than your standard gaming cards. Geforce cards are overclocked so as to operate on higher frequencies this increases the performance but reduces the reliability and life of the card whereas Quadro cards are clocked at such a frequency so as to achieve good balance between performance and reliability. 

SSDs compared

Head over to page 102 to read our comparison review of latest SSDs

Bazaar

All the latest hardware that's released every month – tried, tested and rated just for you



Big ones, little ones, and some in between. We tested consumer laptops from Acer, Apple, Asus, Dell, HP, Lenovo, MSI, Sony and Toshiba to give you the lowdown on some of the most exciting notebooks available in the market at every budget

Haute or Not?

Jayesh Shinde

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It's an important year for laptops, the torchbearers of traditional PCs. Globally, laptops are out-selling desktop PCs for close to a year now. But even laptops are facing increasing competition. They can't catch a break from the ceaseless assault of these new kids on the block – tablets and smartphones.

While more of us prefer buying laptops over desktops as our primary computer, even more of that number are

choosing to invest their money in a high-end smartphone or tablet instead, and that number is rising. PC sales are down as a result, even though from a hardware and performance perspective, laptops are extending the boundaries every single year. They are no longer hot or desirable anymore.

This has had an interesting effect on laptop manufacturers. Aware of the impact tablets and smartphones are having on laptop sales, manufacturers are adopting the popular adage “if you can't beat them, join them,” in their bid to rekindle every-

one's interest in laptops once again. As a result, the market is going to be flooded with ultrabooks – sexy, thin and lightweight laptops that don't compromise on processing power and overall performance.

In this comparative analysis of popular consumer laptops found in the market, we have featured four of the five available ultrabooks in India here – we missed out on the Samsung ultrabook as it launched late last month, there just wasn't enough time. This number is only going to rise as we approach the end of the year. Hopefully, this will

stem the tide of tablets and smartphones a bit and make us fall in love with laptops all over again.

In this article, we've managed to test twenty consumer laptops that make up a sizable chunk of the market.

There's one for every budget (between ₹28,000 to ₹1,00,000) and user type – whether you're a cash-strapped college student barely making ends meet or someone who wants a mobile, portable, and powerful home entertainment system.

We hope this gives you, our reader, a good indication of the

Rapidshare fighting pirates

Fearing a sad and sudden raid on its service, Rapidshare is restricting download speeds—oh the irony!

Mozilla's own app store

To combat Google and Apple's dominance on the app market, Mozilla will open its own app store <http://bit.ly/wG4P3G>

Laptop Comparison

current state of laptops and where the segment is heading in the future with the steady emergence of ultrabooks.

General purpose laptops

Laptops that aren't ultrabooks (except the 11-inch Apple MacBook Air, which is a premium ultraportable) fall under this section. We were really looking forward to compare the machines we got. We are glad to report that we received representation from pretty much a laptop at every possible price segment that's available in the market, starting from a budget of ₹28,000 odd, which caters to the lower end of the market, all the way up to ₹85,000, the premium to high-end segment of the laptop market. Here's more on them.

Features

What we noticed here is that every manufacturer is caught in the rat race

of providing the maximum number of features on their laptops at any given price point. The result of this is that it's becoming increasingly difficult to clearly distinguish between two laptops based on features alone. Most new laptops sold today come with a second generation Intel Core processor, at least 2GB of RAM, 320GB hard drive, 14 or 15-inch screen, USB, HDMI, VGA, card reader slots, optical drive, six-cell battery, keyboard with chiclet-keys, Wi-Fi connectivity, and some version of Microsoft's Windows 7 operating system.



HP Pavilion dv6-6121tx



Sony VAIO C Series

ating system. The gulf between a budget laptop and a high-end, expensive laptop in terms of their features isn't as wide as it used to be, say, 3 or 4 years ago. Laptops have arrived at a minimum feature set, irrespective of its price, that's offered on each and every variety – like netbooks – they've reached a saturation point.

In this test, the top three laptops in terms of their features are the HP Pavilion dv6-6121tx,

Sony VAIO-C and Lenovo IdeaPad Y570. All three laptops come with a powerful combination of basic hardware components – the HP and Lenovo laptops sport a quad-core Core i7 processor, while the Sony VAIO C has a powerful dual-core Core i5 chip.

Both the HP and Sony machines come with 4GB of RAM, while the Lenovo laptop packs 6GB of RAM. All three laptops offer storage space above the average limit of 320GB: HP and Sony pack 500GB hard drives each, while

HOW WE TESTED

Not just for this comparison test alone, but this is how we generally test laptops for reviews conducted throughout the year in the magazine and online on the website.

PREPPING

We never benchmark a laptop's performance on its default partition and bundled operating system. We shrink the active partition to make room for another and install a standard 64-bit version of Windows 7 SP1 on all laptops. This is then followed by downloading drivers for all the components of the laptop and running Windows update. We do this to that ensure none of the pre-bundled

software has any effect on the laptop's performance score. After this step, we're ready to benchmark the laptops.

BENCHMARKING

We run a range of industry standard software benchmarks to measure a laptop's hardware capability and overall performance. We also measure performance with a bunch of subjective tests, consistent across all laptops – for e.g., watching a movie at a fixed volume and screen brightness to drain out a laptop's battery. Prepping and benchmarking take up the most amount of time while reviewing laptops – roughly more than half the overall time.

FEATURE LISTING

Here we take a look at all the features offered by a laptop, be it the range of connectivity options it provides or the operating system it comes bundled with, we also scrutinize it for anything it promises to deliver but doesn't. To put it more plainly, if a laptop claims it comes with 6 GB of RAM, we check whether it actually has 6 GB of RAM or not. We do this for all the laptops, against almost all the parameters that affect one's buying decision.

ERGONOMICS

While look and feel can be a matter of personal preference

to some extent, determining the best ergonomic design is a matter of scientific principles. In determining the Design & Usability score for every laptop, we take into account several factors like build quality, material used, hinges, keyboard deck, palmrest, touchpad, etc., and break it down exhaustively to arrive at a cumulative score for ergonomics, design and general usability aspects of the laptop.

After going through this process for each and every laptop, we arrive at a final score based on a formula with assigned weighted scores for performance, design, and features.

Porn on App World?

RIM's last desperate bid to gain popularity leads to adult, mature rated apps in Blackberry's app world
<http://bit.ly/yHdHHT>

Digital game distro

You cede control of your library to a business, and business is evil
<http://bit.ly/zRYAIs>

Lenovo offers a 750GB hard drive for customers. Their graphics solution is among the best in this category. The HP Pavilion dv6 has the best GPU of the bunch, an AMD Radeon HD 6770M. The Lenovo IdeaPad Y570 is the next in line with an Nvidia GeForce GT 555M, while the Sony VAIO C has an AMD Radeon HD 6630M graphics chipset.



Lenovo IdeaPad Y570

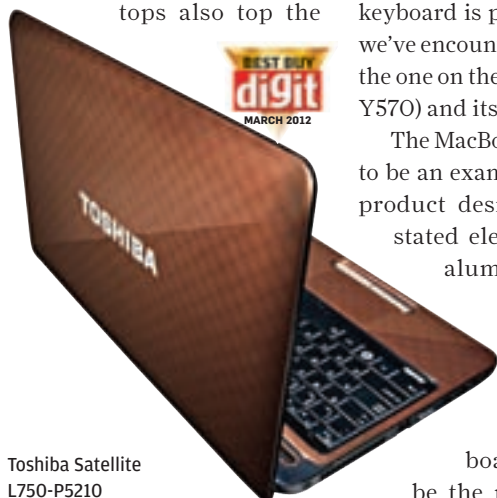
Not only do these three laptops come with every possible feature and popular connectivity port provided by their competitors, they offer something more than that to grab the spotlight. For example, they all offer four USB ports on their 15-inch frames (almost all other laptops offer up to 3 USB ports), some of which are SuperSpeed USB 3.0 ports for faster data transfer. Where every laptop in the test offers a standard 1366x768 pixel resolution screen, the Sony VAIO C is the one laptop that offers a full-HD 1920x1080 pixel area in a 15.5-inch screen.

Design and Usability

The Sony VAIO C and HP Pavilion dv6-6121tx laptops also top the

design and usability charts, accompanied by the 13-inch Apple MacBook Pro. Where the MacBook Pro is undoubtedly the best built, with a rugged aluminium exterior, the VAIO C has the highest cumulative score in this area largely because of its extremely functional design: it has multimedia shortcut buttons, Wi-Fi toggle key on the front edge, besides a zillion activity indicators all over, placed smartly and conveniently within reach. We don't dig its colour much – I think it's a matter of personal preference – but apart from that the Sony VAIO C is built ruggedly, it feels thick and chunky, and all its edges are smoothly bevelled. The keyboard is probably the best we've encountered (along with the one on the Lenovo IdeaPad Y570) and its backlit.

The MacBook Pro continues to be an example of definitive product design and understated elegance, be it the aluminium unibody enclosure, glass trackpad, plush palm-rest or comfortable keyboard. It may not be the most functional



Toshiba Satellite L750-P5210

design of the bunch, but from the outside, it is definitely a work of art, and that sums up the MacBook Pro pretty well. The HP Pavilion dv6's design has greatly improved from what we remember from a couple of years back, it's much more streamlined now, and the polished metal exterior it sports adds a touch of premium elegance to its overall design quotient. We also like the all-black look

that the Pavilion dv6 sports and the silver hinge on the inside when you prop it open. Dell's XPS 14z is another one that impressed us and scored highly



Dell XPS 14z

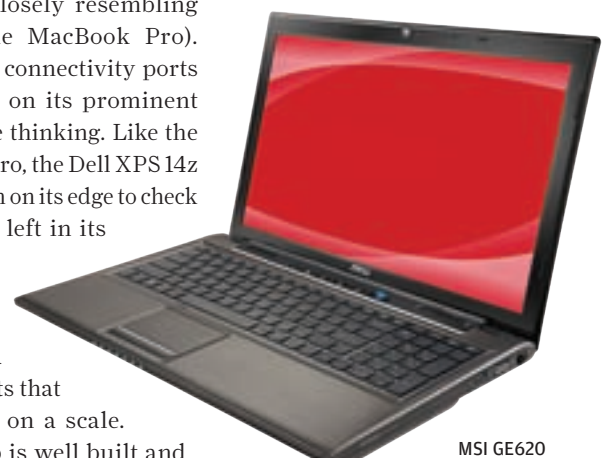
with respect to its design. Part of Dell's premium home entertainment laptop offering, the XPS 14z is completely clad in a brushed silver aluminium exterior (closely resembling that of the MacBook Pro). Most of its connectivity ports are placed on its prominent spine – nice thinking. Like the MacBook Pro, the Dell XPS 14z has a button on its edge to check the charge left in its battery – press the button to activate a row of lights that illuminate on a scale. The laptop is well built and

has a premium feel to it. It's also the only laptop in this comparison to have a three-year, complete cover warranty cover included in its price, should its hardware fail.

Despite being one of the least expensive laptops in this comparison, the 15-inch Toshiba Satellite L750-P5210 has some mention-worthy design and usability attributes incorporated into it. For instance, it's one of the few 15-inch laptops that put a number pad on the right side of its keyboard, sports non-chiclet, closely packed keys on its keyboard which are good for typing, and build quality is good overall, despite being largely composed of plastic on the exterior.

Performance

Most of the benchmark scores for each and every laptop are mentioned in the table on the next page, so we won't discuss



MSI GE620

PS Vita: Is it worth it?

Launched last month, everyone's raving about Sony's new handheld console. Should you? <http://bit.ly/yCOuTp>

Ubuntu on Android

A dual-OS concept allows smartphone to be docked and used as a desktop <http://bit.ly/zcyeVb>

Laptop Comparison

performance in much detail here, just a few important highlights that couldn't find its way into the table on the next stage.

We would like to point out that the Apple MacBook Pro had by far the best screen among all



Acer Aspire 5755G

the laptops we tested in terms of image and text sharpness, viewing angles, colour consistency, brightness and contrast. Next in line were the Sony VAIO C, Lenovo IdeaPad Y570, HP Pavilion dv6, and Dell XPS 14z with varying degrees of screen quality – all good though.

The only laptops you can use to get away with playing the latest games without being utterly disappointed are the HP Pavilion dv6, Lenovo IdeaPad Y570, MSI GE620, Acer Aspire 5755G and the Acer Aspire TimelineX 5830TG laptops. The laptop with the most battery backup was the Asus U32U which easily sailed past the 4 hour mark on our battery benchmark, primarily because it's based on AMD's Brazos APU, the E-450, which is a low-powered chip compared to the Intel Core processors, low in performance but great for conserving battery power.

Winners

Out of the 15 laptops contesting in this category, the Best Buy

award goes to the Toshiba Satellite L750-P5210, while the Editor's Pick is conferred upon the HP Pavilion dv6-6121tx. The Toshiba Satellite really did well in all departments, despite being a budget laptop running on an older processor. It's recommended for someone interested in a basic computer for household needs without over-extending one's budget.

The HP Pavilion dv6, on the other hand, is a premium home entertainment laptop which does very well in every department – features, performance, design and usability – and fully justifies its price tag. Hence, it's our Editor's Pick for this month.

It's recommended for anyone who wants a premium, good-looking, 15-inch, all purpose laptop for home entertainment and a bit of gaming.

Other honourable mentions include the Sony VAIO C, Dell XPS 14z, Lenovo IdeaPad Y570 and the Acer Aspire TimelineX 5830TG – all very good laptops to buy if you have certain brand preferences that can't be changed.

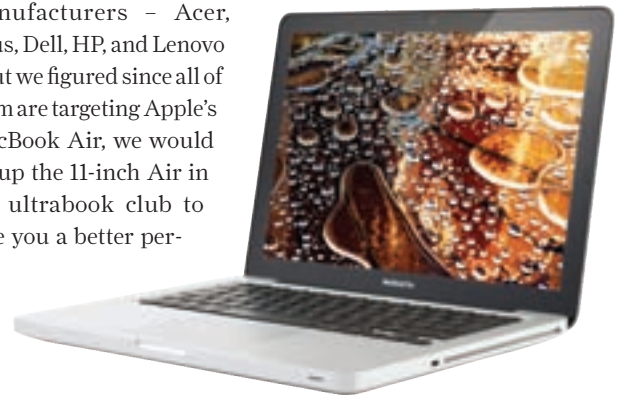
Overall, we learned that almost every laptop manufacturer is pulling their socks up to offer laptops with unique value propositions to make them more attractive to buyers.

Ultrabooks

Yes, they are the sleek, sexy, thin but powerful new-age variety of laptops we discussed briefly in the introduction of this article. Intel has gone on record to state that 40% of laptops launched this year will be ultrabooks, that manufacturers will flood the market with over 70 different types of ultrabook offerings globally. Such a remark from

someone who makes chips that goes into hundreds of thousands of laptops every year is definitely a sign of things to come. For better or worse, the ultrabook is the next big wave on the laptop horizon – if you think it's for the worst, stay happy in your smartphone and tablet camp.

Technically, we only received four ultrabooks from four manufacturers – Acer, Asus, Dell, HP, and Lenovo – but we figured since all of them are targeting Apple's MacBook Air, we would group the 11-inch Air in the ultrabook club to give you a better per-



Apple MacBook Pro 13-inch

spective on where things stand as of now.

Also, it's considerably easier to compare each of these ultrabooks with the Air, spec to spec, feature to feature, when they're packed next to each other in the comparison table.

Build and Design

Although Intel has an established roadmap with respect to the processor architecture, the

defining physical attributes for an ultrabook are still largely its slimmer, thinner dimensions. The Acer Aspire S3 and Lenovo IdeaPad U300s are less than 0.7-inch in thickness, while the Asus Zenbook UX31E and HP Folio 13 are slightly thicker than 0.7-inches, but still slimmer than 1-inch, when measured with their lid closed. None of

the bundled laptops weigh more than 1.5 kg, which is the weight of the "heaviest" ultrabook – the HP Folio 13.

All four ultrabooks in the comparison sport metal screen lids, with two sporting an all-metal exterior (Asus, Lenovo) while the other two having to make do with reinforced plastic shells (Acer, HP).

While the Lenovo and Acer ultrabooks have smooth metal



Acer Aspire S3

Hard drive relief

Forget Thailand floods, manufacturers are ready to produce 150 million units in Q1 2012
<http://bit.ly/yLhOyf>

Intel's solar CPU tech

Interesting tech that Intel's working on includes digital radios, solar-powered CPU technology that's around the corne
<http://bit.ly/xQGGJc>

Consumer laptops (General purpose)

Brand	Acer	Acer	Acer	MSI	MSI	Asus	
Model	Aspire 5830TG	Aspire 5755G	Aspire 5755	GE620	CR640	U32U	
Price (₹)	40990	35482	29457	59999	38999	30999	
Features (so 30)	16.57	16.20	15.32	17.17	15.50	13.68	
Overall (so 100)	59.18	52.80	51.92	57.52	51.17	44.46	
Processor	Intel Core i5 2410M	Intel Core i3-2310M	Intel Core i3-2310M	Intel Core i5-2410M	Intel Core i5 2410M	AMD E-450	
Speed (MHz)	2300	2100	2100	2300	2300	1650	
RAM (DDR3)	3 GB	4 GB	2 GB	4 GB	3 GB	2 GB	
Graphics	NVIDIA GeForce GT540M & Intel HD 3000	NVIDIA GeForce GT540M & Intel HD 3000	Intel HD 3000	NVIDIA GeForce HT540M & Intel HD 3000	Intel HD 3000	AMD Radeon HD 6320	
HDD	500	640	500	640	500	320	
OperatingS	Windows 7 HP 64-bit	Windows 7 HP 64-bit	Windows 7 Home Basic	Windows 7 HP 64-bit	Windows 7 Home Basic	Windows 7 Home Basic	
Screen Size (Inches)	15.6	15.6	15.6	15.6	15.6	13.3	
Type of Panel	LED Backlit	LED backlit	LED backlit	LED backlit	LED Backlit	LED backlit	
Screen Resolution (Pixels)	1366x768	1366x768	1366x768	1366x768	1366x768	1366x768	
Weight (kg)	2.4 kg	2.7 kg	2.7 kg	2.5 kg	2.6 kg	1.55 kg	
No of Ports (USB/Firewire)	3/0	3/0	3/0	3/0	4/0	3/0	
No of USB 3.0 (Y/N)	0	1	1	2	2	2	
Connectivity (LAN / Bluetooth / Wi-Fi)	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/N/Y	
E-Sata / Thunderbolt (Y/Y)	N/N	N/N	N/N	Y/N	N/N	N/N	
Display (VGA/DVI/HDMI/Display Port)	Y/N/Y/N	Y/N/Y/N	Y/N/Y/N	Y/N/Y/N	Y/N/Y/N	Y/N/Y/N	
Headphone/Mic	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	
Memory Card Reader (Y/N)	Y	Y	Y	Y	Y	Y	
Fingerprint scanner?	N	N	N	N	N	N	
Optical Drive (Y/N)	Y	Y	Y	Y	Y	N	
Inbuilt Webcam (Y/N)	Y	Y	Y	Y	Y	Y	
Design & Usability (so 30)	19.13	19.13	19.13	19.50	17.25	14.63	
Performance (so 40)	23.48	17.48	17.48	20.85	18.42	16.15	
PCMark Vantage Score	6679	5642	5179	6449	6354	2226	
Memory Score	4187	3670	3198	4381	3973	1644	
TV and Movies Score	2722	2662	3530	3317	4280	1332	
Gaming Score	5575	4460	3724	5564	4423	1926	
Music Score	6206	5127	4932	5769	6472	2565	
Communications Score	6105	5139	5115	6257	6313	2571	
Productivity Score	5790	4759	4687	5611	5756	1794	
HDD Score	3339	3124	3250	3070	3614	2656	
3D Mark 06 Score	8734	8191	3524	8913	4091	2602	
Maxxon Cinebench R11.5 (CPU Score)	2.6	2.01	2.03	2.62	2.61	0.58	
Battery Meter (in mins)	244	119	145	131	115	270	
Speaker volume (at 50%)	6.5	6.5	6.5	5.5	7	5.5	
Speaker clarity (at 100%)	7	6	6	6.5	6.5	6	
HD video playback test (So 10)	6.5	6.5	6.5	8	7	5.5	
4GB single file copy (secs)	189.58	172	164	184	172.3	201	
4GB folder files copy (sec)	170.44	197	192	197	176.3	237	
100 MB File Conversion (VOB-to-DivX) (secs)	35.41	71	46.3	35.5	34.9	140	

What went wrong, AMD?

Set to topple over Intel in 2006, now its very existence is under serious threat. What happened? <http://bit.ly/xYBBVK>

iPad 3 to have retina display

Not just any retina display, but an ultra-high resolution screen with a 2048x1536 resolution. You can close your jaw now <http://bit.ly/zDRPtH>

Laptop Comparison



	Toshiba	Toshiba	Toshiba	Sony	HP	Lenovo	Dell	Dell	Apple
	Satellite L750-X531B	Portege R830-I3310	Satellite L750-P5210	VAIO C	Pavilion dv6-6121tx	Y570	XPS 14z	Inspiron 13z	MacBook Pro
	50279	42789	28334	59990	57990	50000	60900	42780	84900
	17.08	16.44	13.38	17.68	20.01	18.22	17.21	13.44	13.34
	56.90	54.95	50.90	62.35	66.97	63.97	59.21	51.92	58.72
	Intel Core i5-2450M	Intel Core i3-2350M	Intel Pentium B960	Intel Core i5-2450M	Intel Core i7-2630QM	Intel Core i7-2630M	Intel Core i7-2640M	Intel Core i5-2430M	Intel Core i7-2620M
	2500	2300	2200	2500	2600	2000	2800	2400	2700
	6 GB	4 GB	2 GB	4 GB	4 GB	6 GB	8 GB	2 GB	4 GB
	NVIDIA GeForce GT525M	Intel HD 3000	Intel HD graphics	AMD Radeon HD 6630M & Intel HD Graphics 3000	AMD Radeon HD 6770M	NVIDIA GeForce GT555M	NVIDIA GeForce GT 520M	Intel HD Graphics 3000	Intel HD Graphics 3000
	750	500	500	640	640	750	750	320	500
	Windows 7 HP 64-bit	Windows 7 HP 64-bit	Windows 7 Home Basic	Windows 7 HP 64-bit	Windows 7 64-bit	64-bit Windows 7 HP	Windows 7 Ultimate 64-bit	Windows 7 Home Basic	Mac OS X Lion
	15.6	13.3	15.6	15.5	15.6	15.6	14	13	13
	LED Backlit	LED backlit	LCD backlit	LED backlit	LED backlit	LED backlit	LED backlit	LED backlit	LED backlit
	1366x768	1366x768	1366x768	1920x1080	1366x768	1366x768	1366x768	1366x768	1280x800
	2.5 kg	1.5 kg	2.4 kg	2.85 kg	2.63 kg	2.7 kg	2.03 kg	1.81 kg	2.04 kg
	3/0	3/0	3/0	4/0	4/0	4/0	3/0	3/0	3/0
	1	1	0	1	2	2	1	1	0
	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y
	N/N	Y/N	N/N	N/N	N/N	Y/N	N/N	N/N	N/Y
	Y/N/Y/N	Y/N/Y/N	Y/N/Y/N	Y/N/Y/N	Y/N/Y/N	Y/N/Y/N	N/N/Y/Y	N/N/Y/N	N/N/N/N
	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y
	Y	Y	Y	Y	Y	Y	Y	Y	Y
	N	Y	N	N	N	N	N	N	N
	Y	Y	Y	Y	Y	Y	Y	N	Y
	Y	Y	Y	Y	Y	Y	Y	Y	Y
	20.44	20.06	20.81	23.81	22.69	21.56	20.63	17.25	23.44
	19.39	18.44	16.71	20.85	24.27	24.18	21.37	21.23	21.94
	7093	5127	4797	7082	6798	7134	7675	6233	6304
	4126	3195	3032	3824	4041	4594	4537	3769	3768
	4178	3377	3226	4252	5143	3635	2995	3968	3992
	5859	3757	2993	4232	5125	5774	5295	3714	4108
	6417	5344	5331	6778	6077	6035	7346	5835	5828
	9611	5228	5027	9491	6934	6304	10662	9226	7792
	5889	5097	4119	5973	6617	5833	6610	5689	5546
	2893	2808	3462	3556	3550	3391	4061	3531	2606
	6888	3446	2705	6837	12300	10334	5394	3489	4793
	2.78	2.23	1.7	2.8	4.85	4.19	2.8	2.66	2.83
	102	189	155	129	135	115	103	168	128
	5.5	5	4.5	7.5	7	7.5	7	6.5	7
	6.5	6	7	7.5	7	7.5	6.5	7	7.5
	6.5	6.5	7	8.5	7.5	8.5	7.5	6	8.5
	149	156	174	167	169	174	101	110.6	95
	213	192	224	219	206	209	143	138.5	163
	34	42	50.7	35	28.4	27	28.88	35.7	32.5

Flash memory woes

A recent report claims that flash memory, not network hassles, damage most smartphones, according to a research

Govt to track cell phones

Indian government has said that it will track locations of all cell phone users in the country, according to a daily <http://bit.ly/wiPrpU>

Tried & tested



Consumer laptops (Ultrabooks)

Brand	Acer	Apple	Asus	Lenovo	HP
Model	Aspire S3	MacBook Air 11	Zenbook UX31E	IdeaPad U300s	Folio 13
Price (₹)	50900	67900	99999	67990	69990
Features (so 30)	13.63	12.57	14.52	13.06	12.96
Overall (so 100)	46.64	56.17	55.53	60.35	65.81
Processor	Intel Core i5-2467M	Intel Core i5-2567M	Intel Core i7-2677M	Intel Core i5-2467M	Intel Core i5-2467M
Speed (MHz)	1600	1600	2600	2000	1600
RAM (DDR3)	4 GB	4 GB	4 GB	4 GB	4 GB
Graphics	Intel HD Graphics	Intel HD 3000 Graphics	Intel HD 3000 Graphics	Intel HD 3000 Graphics	Intel HD 3000 Graphics
HDD	320 SSD	128 SSD	256 SSD	128 SSD	128 SSD
OS	Windows 7 HP 64-bit	Mac OS X Lion	Windows 7 HP 64-bit	Windows 7 HP 64-bit	Windows 7 HP 64-bit
Screen Size (Inches)	13.3	11	13.3	13.3	13.3
Type of Panel	LED backlit	LED backlit	LED backlit	LED backlit	LED backlit
Screen Resolution (Pixels)	1366x768	1366x768	1600x900	1366x768	1366x768
Weight (kg)	1.35 kg	1.08 kg	1.3 kg	1.33 kg	1.5 kg
No of Ports (USB/Firewire)	2/0	2/0	2/0	2/0	2/0
No of USB 3.0 (Y/N)	0	0	1	1	0
Connectivity (LAN / Bluetooth / Wi-Fi)	Y/Y/Y	N/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y
E-Sata / Thunderbolt (Y/Y)	N/N	N/Y	N/N	N/N	N/N
Display (VGA/DVI/HDMI/Display Port)	Y/N/Y/N	N/N/N/N	N/N/Y/Y	N/N/Y/N	N/N/Y/N
Headphone/Mic	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y
Memory Card Reader (Y/N)	Y	N	Y	N	Y
Fingerprint scanner?	N	N	N	N	N
Optical Drive (Y/N)	N	N	N	N	N
Inbuilt Webcam (Y/N)	Y	Y	Y	Y	Y
Design & Usability (so 30)	16.13	21.94	17.25	21.94	21.19
Performance (so 40)	16.89	21.66	23.77	25.35	31.66
PCMark Vantage Score	5244	8713	8270	9147	9205
Memory Score	2990	4620	4472	1921	4944
TV and Movies Score	3102	3098	3958	3703	3841
Gaming Score	3618	6705	7166	6590	7268
Music Score	4525	10384	9732	10317	10402
Communications Score	7216	7856	7195	9704	10094
Productivity Score	4554	10545	11932	10321	12259
HDD Score	2645	18289	13641	20599	26072
3D Mark 06 Score	3280	4232	3656	3457	3453
Maxxon Cinebench R11.5 (CPU Score)	1.94	1.95	2.3	1.93	1.95
Battery Meter (in mins)	132	124	113	168	280
Speaker volume (at 50%)	5	5.5	6	7	7
Speaker clarity (at 100%)	5	6	6.5	6.5	7
HD video playback test (So 10)	6.5	5.5	7.5	7.5	7.5
4GB single file copy (secs)	179	73	51	53.7	45.1
4GB folder files copy (sec)	230	140.9	116.2	89.1	53.7
100 MB File Conversion (VOB-to-DivX) (secs)	59	44	36	44.7	44

lids, the HP Folio 13 and Asus Zenbook up the ante a bit with a brushed finish that feels excellent on touch.

Despite their razor thin dimensions, all the featured ultrabooks have good build quality – although, we think the Acer Aspire S3 could be a little more rugged, but there its super-slim profile is to blame more than anything else. Another common thread across all the ultrabooks currently is their form factor – all four ultrabooks have a 13.3-inch screen, with the Asus Zenbook sporting the highest resolution screen at 1600x900 pixels.

All ultrabooks sport locked battery compartments that can't just be pulled out, a feature common with all Apple MacBooks, not just the MacBook Air, for at least three years. There's no room to slot in an additional battery pack for greater charge.

Features and Performance

Apart from the 11-inch MacBook Air, all four ultrabooks featured in this comparison feature recently launched 2nd-gen Core i5 and Core i7 processors, especially for use on ultrabooks only. None of the ultrabooks have an optical drive or separate mouse buttons on their trackpad. All ultrabooks come with at least two USB ports, audio jacks and one output video port. Out of all the ultrabooks, we really liked the typing experience on the Lenovo IdeaPad U300s and the HP Folio 13 keyboards. No problem with the Acer Aspire S3's keyboard and trackpad, but the Asus Zenbook's trackpad and mouse buttons are just plain difficult to use.

All ultrabooks managed to achieve the 2-hour mark in our

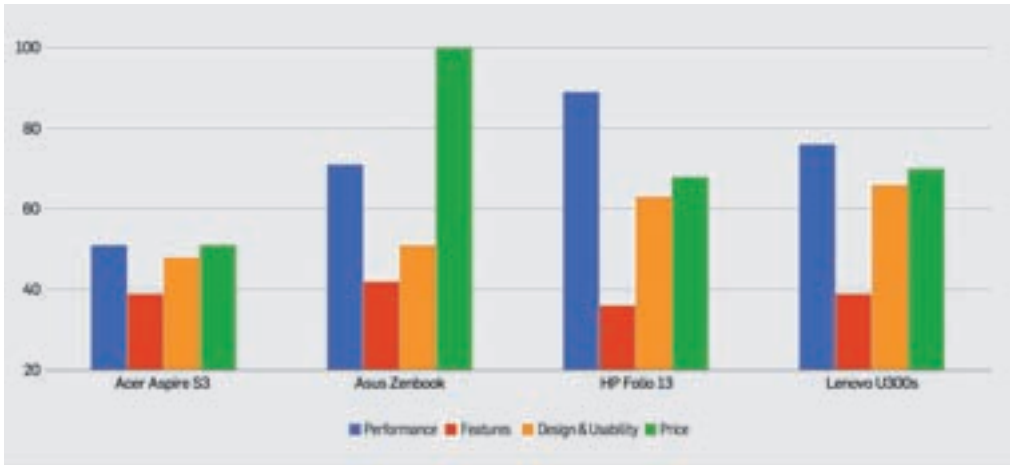
Apple settles lawsuit

Settling the Antennagate lawsuit, Apple will either give affected iPhone 4 users \$15 or a phone cover

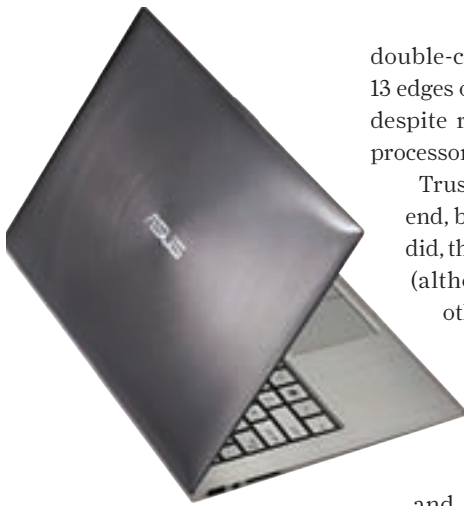
Tetris in 140 bytes

A programmer challenged himself to code a JS under 140 characters. The result? Visit www.140byt.es

Laptop Comparison



Ultrabooks: Comparative analysis through a bar graph. Price index (shown in green) should be as low as possible (ideally); for all other bars (Performance, Feature, Design and Usability) higher is better



Asus Zenbook UX31E

battery tests – Asus fell under by 7 minutes, while HP Folio 13 went over and above that mark by a long shot! Just like Intel claimed, the ultrabooks don't compromise on brute performance despite their anorexic dimensions. Oh, no sir! How could they if all of them are sporting Core i5/Core i7 processors and fast-paced SSDs? HP's Folio 13 won the performance crown in a closely fought contest, with the Asus Zenbook coming in second.

Despite multiple benchmark runs and

double-checking, HP's Folio 13 edges out the Asus Zenbook despite running on a slower processor. Weird, isn't it?

Trust me, it baffled us to no end, but no matter what we did, the scores didn't change (although logic dictated otherwise). This can be partly explained by the fact that our performance score is arrived at by adding CPU and battery results, two crucial components that have a huge bearing on the overall output of the machine.

And the Asus Zenbook's battery life is close to four times

lower than the HP Folio 13's, which frankly, for an ultrabook has a pretty amazing battery life. Finally, we gave up and handed the best performer's trophy to the HP Folio 13.

All four ultrabooks and the 11-inch MacBook Air can handle multitasking with various apps, watching HD 1080p flicks, music and day-to-day apps with ease.

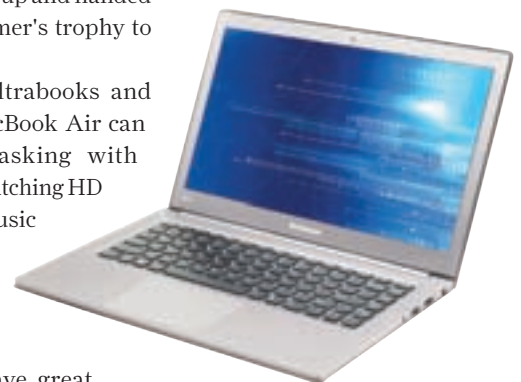
These ultrabooks don't have great depth in onboard audio – whether it's but they are okay for personal entertainment. No doubt, as more manufacturers launch ultrabooks in the coming months, refinement in quality of user experience and fine-tuning components' output will be high on everyone's agenda. as consumers get more picky.

Winner

The HP Folio 13 is our Best Performer, showcasing great processing power with its CPU-SSD combination, beating most other mainstream, general purpose laptops as well. The only thing it doesn't have is dedicated graphics – none of

the ultrabooks presently have discrete graphics, though. All these ultrabooks challenge the might of Apple's MacBook Air in design, features and performance in varying degrees, and some actually manage to successfully beat it – especially the Asus Zenbook UX31E and the HP Folio 13.

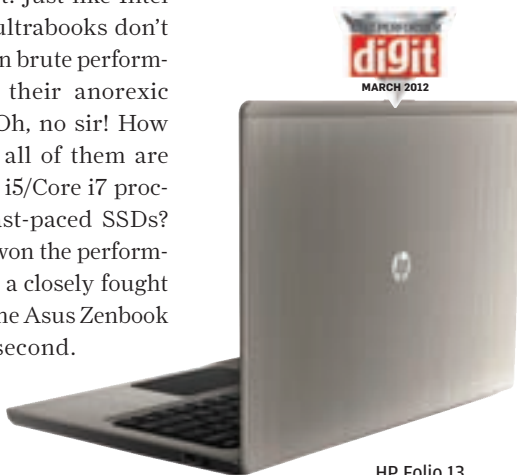
Currently, the argument that ultrabooks will be like MacBook Airs and more affordable than the Apple ultraportable, is a bit flawed. Partly because they are priced in the same range as an Apple MacBook Air (13-inch). In fact, three ultrabooks featured in this test are currently more expensive than the absolute entry level 11-inch MacBook Air that retails for Rs. 56,900.



Lenovo IdeaPad U300s

As Intel eventually delivers on its promise and more manufacturers flood the market with ultrabooks, expect prices to fall. Until that happens, the most important premise, of ultrabooks challenging the MacBook Air successfully, will just fall apart – before the challenge has even begun, in a manner of speaking. For now, we have our fingers firmly crossed.

Only time will tell how successful ultrabooks will be, but for now they look like an exciting new genre of laptops to look forward to. **Ed**



HP Folio 13

SSD Anthology

Anandtech's SSD Anthology is a great resource to get your basics of SSDs right
<http://goo.gl/p0qz>

USB flash drive manufacturing

This video gives you a complete low down on how Kingston USB flash drives are made
<http://goo.gl/S7mpI>

Sleek Speed Demons

Solid state drives are sporting much better controllers, offering better write speeds at much better prices than what was seen a year back. We test 10 high end SSDs to help you decide which SSD you should have in your build



Nimish Sawant

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Solid state drives have been around for a while now. With the pricing on hard drives showing no signs of reaching sensible levels, it is time you considered investing in an SSD. Of course, SSDs can still not match the cost per GB offered by HDDs. But if you want a system which is blazingly fast with quicker boot times, faster application loading times, etc., SSDs are the best bet.

Last year, we had conducted a mini SSD test in our Internal HDD test. This year we

decided that SSDs need to be tested separately, as they have come into their own as far as internal storage goes. Also, last year we had noticed that each SSD used a completely different SSD controller whereas all the SSDs we got for this test, sported the SandForce SF 2281 (except Corsair Force GT 240 GB which had SF 2282 controller) series controller.

SandForce has emerged as the most popular SSD controller off late for the great performance it offers. One of its main advantages is compressing data on the fly using the DuraWrite technology, which limits the number of times the flash memory is

written to – thereby increasing not only the performance, but also the lifetime of an SSD as there are fewer write cycles.

Another advantage of SandForce controller is that it does not require an external memory buffer. It features Redundant Array of Independent Silicon Elements (RAISE) technology to improve disk failure rates. Also SandForce controller sporting SSDs make use of some of the available flash memory for data parity, storing checksums, etc.

The next question on your mind must be - If the SSD controller is the same, wouldn't the performance of all SSDs be similar? The answer is no, as

the controller is just one part of an SSD, the other being the type of NAND memory used. The performance scores aren't similar if the memory type is synchronous or asynchronous.

Synchronous flash memory is more expensive as it can transfer data at both the rising and falling of the signal wave using the central timing circuit. This memory is also denoted by ONFI 2.x NAND or Toggle mode NAND memory. With the asynchronous flash chips, the interface ONFI 1 has a maximum bandwidth of 50 MB/s, thereby, affecting real world performance drastically.

Another important point to consider is that a larger

Synchronous vs. Asynchronous

Check out the performance difference between this face off between the two kinds of flash memory
<http://goo.gl/R4kHd>

Photonic chip in 2 years

APIC and CNSE are looking to develop a photonic microprocessor within two years.
<http://bit.ly/A7f59v>

SSD Test

capacity SSD will have more flash memory chips which can enable the controller to access more chips at a time.

Features

Intel SSDs are known to be reliable and the confidence Intel has in their SSDs is certified with a 5-year warranty whereas all the other competitors had only a 3-year warranty. The 520 series line up has SSDs ranging from 60 GB to 480 GB. We got the 240GB model for the comparison test which houses a SandForce SF 2281 controller. We were expecting an Intel based controller; but then this is not the first time Intel is using a third party controller. There are 16 x 16GB of 25nm Intel MLC NAND taking the total to 256 GB. But you will only have 240 GB at your disposal as 16GB is reserved for data parity, garbage collection and block replacement. Intel bundles in an Intel SSD Toolbox utility which lets you secure erase your

SSD from within the Windows environment. It also has an 'estimated life remaining' bar.

Coming in a flaming red metal casing, the Force GT series are the higher end SSDs in the Corsair lineup. While the 120 GB version has the SandForce SF2281 controller, the 240GB version has SF2282. The main difference being that the SF 2281 has 8 byte lanes whereas SF 2282 has 16 byte lanes, which effectively means that a single SF2282 controller can talk to twice the NAND devices as an SF2281 controller. When you open up the two SSDs, the immediate difference you will notice is the number of NAND flash. The 240GB has 32 Micron NAND chips as opposed to 16 found on the Corsair Force GT 120GB. In the 240GB drive 16GB and in the 120GB drive 8GB is kept aside for data parity, garbage collection purpose. Both the drives bundle an SSD adapter along with screws.

Kingston HyperX SSDs were among the most good looking SSDs that we have tested so far. The metal gray and blue design looks very contemporary and gives it a very premium feel. The HyperX logo is embossed on the front face. Both SSDs sport the SF2281 controller along with synchronous Intel NAND flash chips in both drives. Just like the Corsair SSDs, 16 GB and 8 GB are kept aside for data parity, garbage collection and block replacement

in the 240 GB and 120 GB drives respectively.

It comes packed with a range of accessories. Apart from the standard SSD adapter that you get with every SSD on the market, Kingston gives you an external casing to use your SSD as an external drive - which is pointless as the USB port will be a bottleneck - but it's useful for those of you who want to carry your SSD data with you. It also bundles in a SATA cable and a screw driver to attach your SSD to your internal HDD tray.

The Kingston SSDNow V+ 200 90 GB SSD was the only SSD under 120 GB that we received for this shootout.

The V+ 200 series is an upgrade to the older, budget based SSDNow V+ 100 series of drives. It features a SandForce SF 2281 controller as opposed to the Toshiba based controller that was seen in the V+ 100 series.



Kingmax SMP35 SSD

HOW WE TESTED

Solid state drive testing is slightly different from your regular HDD testing. To ensure that there were absolutely no bottlenecks in the testing, we used the following test setup:

- Processor: Intel Core i7-2600K
- RAM: 2 x 4GB Kingston HyperX RAM
- Motherboard: ASRock Z68 Extreme 3 Gen 3
- OS Drive: Kingston SSDNow V+ 100 128 GB
- RAID 0 drives: 2x Kingston HyperX 120 GB drives
- Graphics Card: AMD HD 6850
- Power Supply Unit: Corsair HX 620W

We had a healthy mix of synthetic tests and real world tests. Before testing we securely erased all the SSDs using a utility called Parted Magic. You need to burn its ISO on a DVD drive and then boot into it. After which you do an Erase Disk > Internal secure erase. This ensures that the SSD is completely free of any content. This helped prevent putting the

SSDs that may have been used in the past at a disadvantage.

Crystal Disk Mark is a renowned utility known for testing drives and helps measure sequential and random read/write speeds. We kept the size at 100MB and ran 3 iterations of the test, so as to get a fair score.

AS SSD is another benchmark we used to test the sequential and random read/write scores. This test also gives us the access time which is the time required to access data from the various memory chips. We also did the Copy file benchmark test.

The final synthetic test that we ran was PC Mark 7's secondary storage test. This test stresses the SSD by simulating workloads such as adding music, importing pictures, video editing etc., to give an overall score at the end. Higher score implies a better SSD.

Synthetic tests just give you a part of the whole picture. While the scores certainly give you an idea of the transfer speeds, they are in

no way indicative of the fact that you will get the same transfer speeds in real life scenarios. We had two test files - an 8 GB sequential file and an 8 GB assorted file (which has a random mix of files ranging in capacity from a few KBs to a few GBs). These files were transferred from the RAID 0 array to the SSD file under test to simulate a write operation; from the SSD to RAID 0 array to simulate a read and finally between the two partitions of the SSD to simulate intra-drive transfer rate. The system was restarted between each of these three transfer tests, so as to get rid of any buffer.

Finally, we used Adobe Photoshop CS2 to test the amount of time taken to load a 1 GB image. Both the image and the scratch disk were kept on test drives on the same partition, effectively stimulating file access.

As solid state drives are all about performance, we did not have any weightage for features, as there are none so to speak. Ultimately everything boils down to transfer speeds and pricing.

IBM Docs cloud collaboration

IBM has joined the intensely competitive battle between Google and Microsoft, with IBM Docs and IBM SmartCloud for Social Business

No torrents on TPB

The Pirate Bay announced it will stop using BitTorrent trackers by February 29, after which, it will only serve magnet links



Brand	Kingston	Corsair	Corsair	Silicon Power	Intel	Kingmax
Model Name	Kingston HyperX 240 GB	Corsair Force GT 240	Corsair Force GT 120 GB	Silicon Power SSD V30	Intel Series 520 240 GB	Kingmax SMP35 120 GB
Model Number	SH100S3/240G	CSSD-F240GB-GT-BK	CSSD-F120GB-GT-BK	SSDV30S25	SSDSC-2CW240A3K5	KM120GSMP35
Price	25500	22500	11500	13200	30000	10500
Cost per GB	114.06	100.64	102.87	118.08	134.19	93.93
Performance	84.84	88.84	68.53	67.96	89.12	57.22
Grand Total (Out of 100)	84.84	88.84	68.53	67.96	89.12	57.22
Features						
TRIM Support	Y	Y	Y	Y	Y	Y
Unformatted space (GB)	223.57	223.57	111.79	111.79	223.57	111.79
SSD Controller	SandForce SF2281VB1	SandForce SF2282VB1	SandForce SF2281VB1	Sandforce SF2281VB1	Sandforce SF2281VB1	SandForce SF2281
NAND Memory	16 x Intel/Micron 29F16B08CCME2	32 x Intel/Micron 29F64G08CBAAB	16 x Intel/Micron 29F64G08CBAAB	16 x Intel/Micron 29F64G08ACME2	16 x Intel/Micron 29F16B08CCME2	16 x Kingmax KIC08G-ACAM-MAA
Interface	SATA 3	SATA 3	SATA 3	SATA 3	SATA 3	SATA 3
SSD Tray (Y/N)	Y	Y	Y	Y	Y	Y
External Casing (Y/N)	Y	N	N	N	N	N
Synchronous (Y/N)	Y	Y	Y	Y	Y	N
Warranty (Years)	3	3	3	3	5	3
Performance						
Crystal Disk Mark 3.0.1 (3 Test runs of 100MB) (0x00 fill) in MB/s						
Sequential Read	485	478.9	478.2	489.5	498.3	465.3
Random 512K Read	440.8	433.8	435.3	441	457.5	424
Sequential Write	490.9	482.6	475.5	478.4	490.1	472.2
Random 512K Write	467.2	452.3	447.3	458.2	469	449.5
Crystal Disk Mark 3.0.1 (3 Test runs of 100MB) (Random) in MB/s						
Sequential Read	486.5	494.1	481.5	488.4	476.4	211.3
Random 512K Read	418.3	430.1	420.7	424.6	421.7	201.9
Sequential Write	305.7	309.8	109	141.7	310.9	146.3
Random 512K Write	300	304.5	109	147.1	306.8	146.5
AS SSD						
Read (in MB/s)						
Sequential Read	502.94	501.67	505.02	507.72	495.01	205.46
4K	20.5	20.65	20.64	20.5	22.53	18.1
4K 64	162.6	185.96	109.56	115.73	229.44	91.82
Access Time (in ms)	0.1560	0.0790	0.0780	0.2300	0.0750	0.0680
Write (in MB/s)						
Sequential Write	295.28	292.85	163.12	127.24	290.67	139.68
4K	50.98	59.56	59.94	57.59	53.14	58.99
4K 64	232.5	227.51	156.93	141.53	235.4	132.76
Access time (in ms)	0.2680	0.2620	0.2760	0.2750	0.2160	0.3010
Overall Score	663	701	497	484	771	407
Copy Test (in MB/s)						
ISO	321.95	369.7	223.4	249.78	375.87	143.47
Program	226.67	179.1	130.2	130.59	182.72	98.19
Game	254.58	211.04	154.3	222.47	237.23	111.94
PCMark7 Secondary storage Score	5317	5322	5123	5087	5289	4691
Windows Defender	5.53	5.33	5.45	5.44	5.49	5.33
Importing pictures	27.88	28.1	24.23	23.29	28	21.25
Video editing	23.25	23.22	23.1	23.04	23.18	21.6
Windows Media Centre	8.24	8.24	8.24	8.23	8.25	8.17
Adding music	1.4	1.4	1.4	1.4	1.4	1.39
Starting applications	56.51	55.97	51.83	51.86	55.2	37.82
Gaming	16.88	16.7	16.7	16.64	16.77	15.58
Real Life Transfer tests (MB/s)						
8 GB Sequential File Read	305.67	307.96	253.46	306.7	306.01	189.98
8 GB Assorted File Read	267.78	277.31	205.75	257.61	274.1	161.29
8 GB Sequential File Write	285.03	290.1	181.64	143.66	291.14	152.32
8 GB Assorted File Write	262.48	260.8	164.39	112.21	256.64	139.62
8 GB Sequential Transfer within partitions	163.97	167.08	122.76	109.32	176.78	87.04
8 GB Assorted Transfer within partitions	153.03	155.41	113.1	101.67	157.69	81.38
1 GB PSD file opening (in secs)	10.98	9.71	9.57	9.49	9.5	10.9

Smallest 128Gb MLC NAND chip

SanDisk has developed the world's smallest 128 Gb NAND flash chip using its 19nm process technology
<http://goo.gl/t8COP>

SSD future?

According to a group of researchers, SSDs have a bleak future
<http://goo.gl/c7Ju1>

SSD Test

	ADATA	Kingston	Strontium	Kingston
	ADATA S510 120 GB	Kingston SSDNow V+ 200 90 GB	Strontium Python Series 240GB	Kingston HyperX 120GB
	AS510S2-120GM-C	SVP200S3/90G	NA	SH100S3/120G
	10150	8500	21900	13500
	90.8	101.38	97.96	120.76
	55.19	51.64	68.39	64.31
	55.19	51.64	68.39	64.31
	Y	Y	Y	Y
	111.79	83.84	223.57	111.79
	Sandforce SF2281VB1	Sandforce SF2281VB1	Sandforce SF2281VB1	Sandforce SF2281VB1
	16 x Intel/Micron 29F64G08CBAAA	16 x Intel/Micron 29F64G08ACME	NA	16 x Intel/Micron 29F16B08CCME2
	SATA 3	SATA 3	SATA 3	SATA 3
	Y	Y	N	Y
	N	N	N	Y
	N	N	N	Y
	3	3	3	3
	468.9	487.5	488.8	479.2
	414.4	447	436.3	433.3
	472.6	472	482.7	475.5
	445.6	450.6	466.6	448.4
	209.6	215.1	216.6	267.5
	198.5	203.2	204.4	256.3
	148.8	121.5	251.3	166.7
	149.7	121.7	250	166.9
	204.79	200.95	212.24	264.4
	18.35	17.5	18.77	18.93
	86.83	88.15	129.86	105.46
	0.1200	0.1610	0.0630	0.0810
	142.28	115.96	235.49	158.62
	52.15	54.63	55.38	52.39
	135.28	112.28	206.76	147.42
	0.2920	0.3100	0.2780	0.2790
	396	372	551	446
	144.34	128.27	149.68	212.62
	101.79	84.96	113.71	134.28
	118.15	104.09	132.03	167.3
	4695	4604	4860	4991
	5.31	5.27	5.41	5.43
	21.61	20.02	24.71	23.11
	21.6	21.45	21.84	22.26
	8.17	8.16	8.18	8.12
	1.4	1.39	1.4	1.4
	37.56	36.26	39.79	48.98
	15.58	15.47	15.86	16.38
	189.23	185.67	245	238.97
	159.34	155.15	216.37	196.07
	156	130.73	205.57	181.07
	141.09	117.81	170.47	157.81
	87.76	81.42	109.97	101.13
	63.13	74.83	103.72	94.59
	11.68	15.35	11.26	10.23



Intel Series 520 240 GB SSD

Also the V+ 200 series uses a SATA 3 interface as opposed to the SATA 2 interface found on the V+ 100 series drives.

The main difference between the V+ 200 series and the HyperX SSDs is the use of asynchronous memory for the V+ 200. The asynchronous memory is economical as compared to the synchronous memory as it limits the data transfer speed between the controller and the flash memory chips. So even though you have the same SSD controller, the choice of flash memory chips determines the speed and ultimately cost of the SSD. The V+ 200 series is targeted at more mainstream user base. In appearance though, you will not be able to tell the V+100 apart from the V+200 series of drives.

The ADATA S510 is the younger sibling of the higher end S511 series SSDs. The major difference being that S510 sports asynchronous flash memory chips to keep the costs low. Apart from the memory type, rest of the things remain the same - SF 2281 controller and SATA 3 interface. Around 8 GB of space of the total 128 GB (16 x 8GB MLC NAND flash units) is kept aside for over provisioning for removing garbage. It comes bundled with a 2.5-inch to 3.5-

inch adapter along with some screws.

Kingmax is a relatively new player in the SSD segment as far as the Indian market is concerned. We got its SMP35120GB SSD which is targeted at mainstream users. It uses the SF2281 controller.

Kingmax being a memory module and flash devices manufacturer, is one of the only SSD manufacturers to use their own memory - the Kingmax KIC08G-ACAMMAA, which is an asynchronous MLC NAND flash chip. It has a SATA 3 interface and it bundles in a 2.5-inch to 3.5-inch adapter along with a SATA cable and a molex to SATA power cable.

Silicon Power sent us their 120GB SSD from the Velox V30 series, which according to its cover, is an enterprise class SSD. It houses the SF 2281 controller along with 16 x 8GB of synchronous Intel NAND memory. It has a SATA 3 interface. Around 8 GB of space of the total 128 GB (16 x 8GB MLC NAND flash units) is kept aside for over provisioning for removing garbage and getting better IOPS. It comes bun-



ADATA S510 120 GB SSD

Understanding TLC

No we are not promoting a travel channel, but this article gives you the dope on Triple Level Cell flash <http://goo.gl/1tYnY>

Hawley Creek to launch soon

Intel 313 series SSDs aka Hawley Creek are rumoured to launch alongside Ivy Bridge processors and series 7 chipsets

dled with a 2.5-inch to 3.5-inch adapter along with some screws.

Strontium Python series SSD's cover had information that was misleading. While the



Kingston HyperX 240GB SSD

front face advertises the SSD as having a SATA 3 interface, the rear side says that it supports SATA 2 interface only. Another discrepancy we found was the mention of SandForce SF1222 controller on the cover, whereas when we opened the drive, we found an SF 2281 controller just like the rest of the SSDs. So Strontium should pay some attention to the labelling. We found this drive to be surprisingly lighter than other drives. The type of MLC NAND chip used in this drive is hard to find out as the NAND chips have no manufacturer names.

Performance

Synthetic tests

We carried out three synthetic tests so as to have a broad overview of the SSDs across various benchmarks.

Crystal Disk Mark is a renowned utility known for testing drives and helps measure sequential and random read/write speeds. We kept the size at 100MB and ran 3 iterations of the test, so as to get a fair score. Under the All O Fill data we got scores which were sim-

ilar across all the SSDs. But you throw in random data, and not all SSDs perform equal. Since we were getting a difference in the default Random test data, we decided to evaluate the sequential and random read/write speeds for both the compressible (All O Fill) and incompressible (Random) test data.

SandForce controllers use compression technology while writing data for a better performance and longer SSD life. Random data is incompressible, hence you will get poor write speeds as

compared to compressible data. Crystal Disk Mark allows you to select between incompressible and compressible test data.

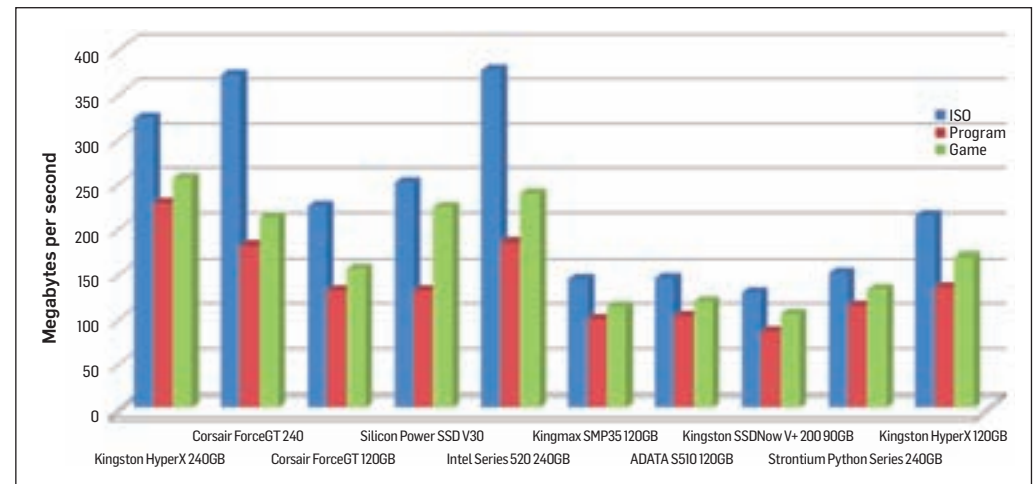
For O Fill test data the read and write scores were very close by as can be seen in the tables. This was true for all SSDs. But only the most powerful SSDs give similar scores when the test data is changed to Random. Kingston HyperX 240GB, Corsair Force GT 240 GB and Intel Series 520 SSDs gave much better sequential and random write speeds than their competitors. Notice the gap in read and write speeds for Corsair 120GB SSD and Silicon Power 120 GB SSD.

AS-SSD on the other hand only had incompressible test

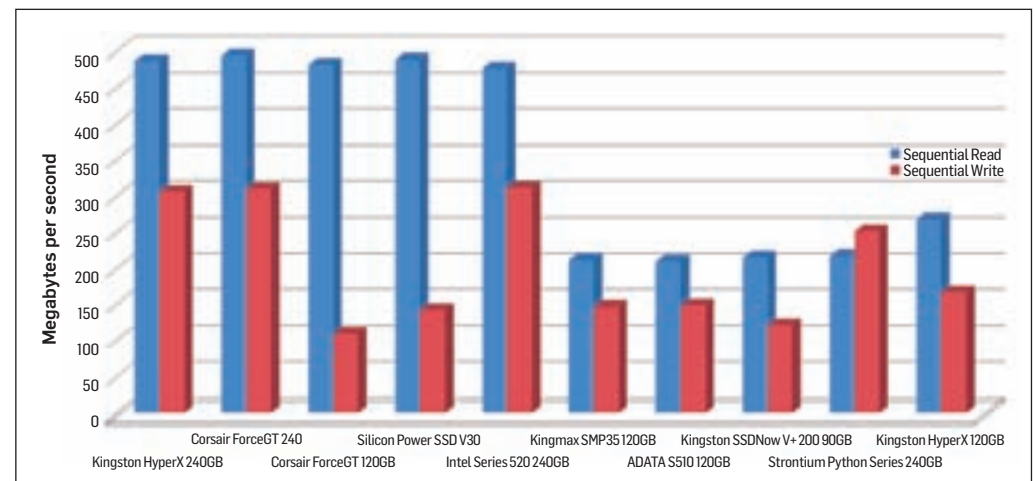
data. So while the sequential read speeds were great for most of the SSD with synchronous flash memory, the write speeds were equally bad. Only Kingston Hyper X 240 GB, Corsair 240 GB and Intel series 520 almost touched 300 MB/s in sequential writes.

We also carried out the copy test benchmark, which simulates a file copy scenario for three categories as shown below. Here again, the Intel series 520 and Corsair 240GB drives emerged with the best score.

Coming to PC Mark 7, we ran the secondary storage test which involves simulating importing pictures, video editing, starting applications



AS SSD Copy test



Crystal DiskMark Incompressible File Test (Seq Read / Write)

25nm SLC NAND is here

Hitachi GST released Ultrastar SSD400S.B series which will feature the expensive 25nm SLC NAND memory meant for enterprise segment

Single-atom transistors

Researchers at UNSW have created a "perfect" single atom transistor, ushering in smaller, more efficient and faster electronics

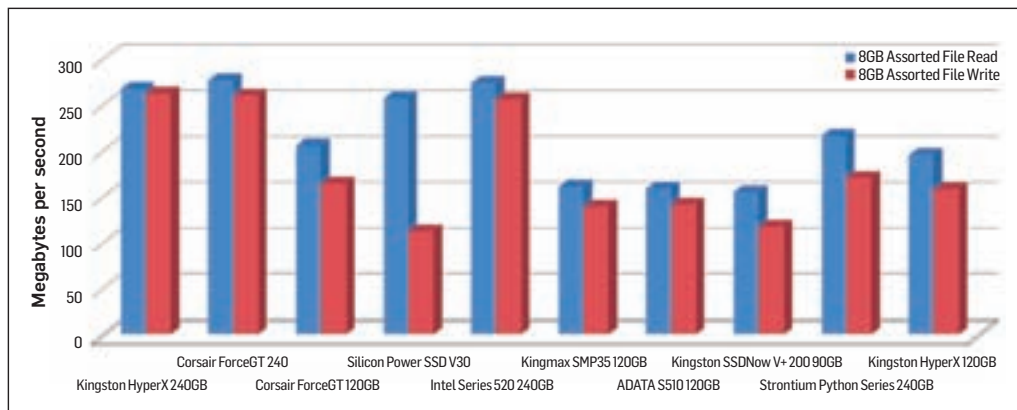
SSD Test

among others. We got an overall score along with data transfer rate in each of the individual scenarios. The top three performers which incorporate synchronous memory, had scores very close to each other, but the remaining SSDs weren't that far either. You may find that the overall score does not give much of a difference, but when you break down the individual tests, there is one particular score which shows a decent amount of difference. That was the Starting Application test.

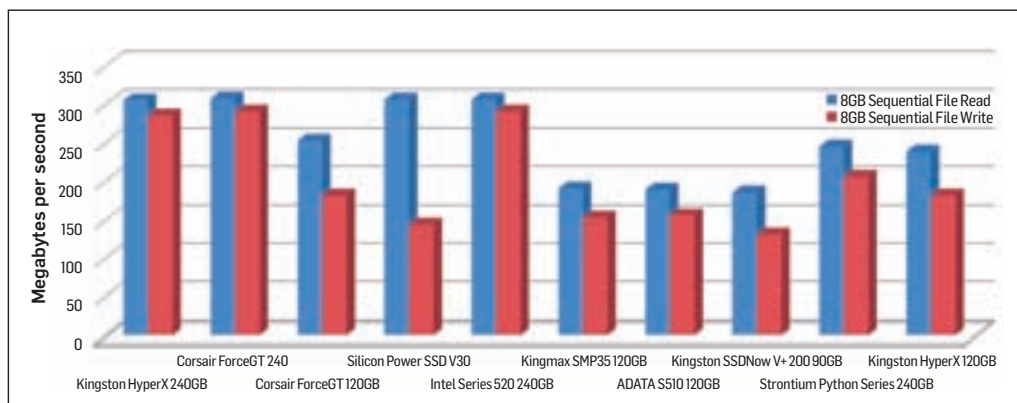
Real world tests

In the real world tests, the higher speeds obtained in the synthetic tests come down by a significant amount and this offers the real picture of the drives.

Sequential file read just crossed the 300 MB/s mark for four drives, namely, Kingston HyperX 240GB, Corsair 240GB, Intel 240 GB and Silicon Power V30 120GB. Infact, the V30 just edged past the Intel 240GB drive by a very small margin. The lowest read speeds were offered by the Kingmax and Kingston V+ 200 drives which can be attributed to the fact that they house asynchronous flash chips. The Intel drive had a very slim margin between its sequential read and write speeds. Silicon Power V30 was disappointing as its sequential write speed was a lousy 144 MB/s which was just slightly better than that of the Kingston V+ 200 drive.



Assorted file transfer test



Sequential file transfer test

With the Assorted read/write transfer speeds again, Intel had a very little margin but it was the Corsair 240GB drive that scored the highest speeds. Intel drive emerged victorious in the inter-drive partition test. Among the asynchronous flash memory sporting drives, we found ADATA S511 to be quite good. While it went



Corsair Force GT 240GB SSD

toe to toe with the Kingston V+ 200 and Kingmax drive in the read tests, it was in the write test, that it scored significantly better than the other two.

Winners

It was a tough fight between Intel series 520, Corsair Force GT 240GB and Kingston HyperX

240GB SSDs. Infact, the difference between the Best Performer winner and runner up was a mere 0.28 points! Yes, it went down to the proverbial wire.

The Best Performer was awarded to Intel Series 520 240GB SSD. But since the Corsair Force GT 240GB SSD was the next best performer with a much lower price than the Intel 240 GB SSD, it won the Best Buy. None of the other SSDs gave a better performance to price goodness. Kingston HyperX 240GB SSD won the Editor's Pick as it had the next best overall score and a better performance to price ratio.

However, we have to say that among the 120GB drives, the Silicon Power Velox V30 and Kingston HyperX 120GB drives were quite impressive. **[1]**

Contact sheet

Brand	Phone	Email	Website
ADATA	91-22-6758-7046	adata_in@adata-group.com	www.adata-group.com
Corsair	NA	Deepa.Medhi@changeagents.in	www.corsair.com
Intel	91 22 6713 7009	NA	www.intel.com
Kingston	91 22 4223 0300	sales_india@kingston.com	www.kingston.com
Kingmax	886-2-8772-5618	feiling.chieh@kingmaxdigi.com.tw	www.kingmax.com
Silicon Power	91-11-41034313	lianne_mai@silicon-power.com	www.silicon-power.com
Strontium	91-11-41654699	meenakshi@proalliancepr.com	www.strontium.biz

Virtual anaesthesia

SnowWorld, a virtual-reality game distracts burn victims from pain
<http://slate.me/wo3eJC>

Social media network Cramlr

A social media platform aimed at teaching and helping you teach
<http://www.cramlr.com/?ref=b72438>

Nokia 700

Good hardware, let down by the ageing OS



Specifications

Platform: Symbian Belle;
Processor: ARM 11 single core 1GHz, 512MB RAM; **Display:** 3.2-inch AMOLED with 640 x 360 pixels; **Storage:** 2GB internal + microSD; **Camera:** 5MP with 720p videos;
Battery: 1080mAh

Contact

Nokia India
Phone: +91 30303838
Email: www.nokia.co.in
Price: ₹18,099



Features	6.5
Performance.....	6.0
Build Quality	7.0
Value for Money	6.0

The Nokia 700's dimension stats simply read 110x 50 x 9.7 (in mm). However, at 9.4 mm, Sony Ericsson Xperia Ray is thinner than the 700. But it weighs just 96 grams, four grams less than the Ray. Despite keeping the weight down so well, the build quality is literally flawless. It is plastic all around, but doesn't feel cheap or flimsy at all.

Before moving on to the hardware side of things, let us talk about the new OS on the block - Symbian Belle. While there are claims that serious design changes have been made to the UI, we think it still looks too similar to the Symbian Anna, or Symbian^3 for that matter. Yes, the icons have a slightly different treatment, you can set different wallpapers for all six home screens, and there are a couple of very useful new widgets. But, the problem is simple - it still feels archaic in the company of Blackberry OS 7, let alone the likes of Android, Windows Phone and iOS.

Unfortunately, a few interface niggles have left us more confused than anything. For example, open the Maps application, click on Map from the homepage - now click on Search. Open search for a location. If you want to return back to the map, there seems to be no return option. Solution - exit Maps and open it again. Same with the camera. Maybe the OS installation on the phone had some issues, but even resetting it didn't help.

The menu still resembles the look of the old Symbian operating system - it is just one

long list. If you are in the Settings menu, or searching going through the options menu in most apps, it looks like a dated file system. We believe that streamlining it to a more visually appealing design would have made it easier for users to navigate through the wades of menu options, with sub menus and even a third layer of menus.

What we loved was the drop down notification bar. Very similar to the one we see on most Android phones, it offers instant access to settings for mobile data, Wi-Fi, Bluetooth and switching to the Silent profile. Belle also brings in support for Near Field Communication, popularly known as NFC.

An ARM11 1GHz processor powers the Nokia 700. With 512MB of RAM to play with, we felt there is enough headroom for background apps. At most times, Belle performs very well, with no performance issues. Queue 3-4 apps for download, and browse the web simultaneously. The phone will be fine while the apps are being downloaded, but slows down when the app is actually being installed on the device. Just to be sure, we stopped all app downloads and opened a couple of web pages, and let Facebook, Foursquare, Twitter, WhatsApp and Angry Birds shift to the background. No slowdowns in this case. Surprising, considering games like Need for Speed and Angry Birds run smoothly, but a task like app installation slows down the system.

The 3.2-inch display is the AMOLED version, with a reso-

lution of 640x360 pixels and Gorilla Glass. This phone also has the Nokia ClearBlack display technology, seen on the Lumia 800 and the Lumia 710. The colour depth is excellent, and we didn't see any gradations even on the usual suspects - light green and yellow. Text crispness is extremely good, allowing you to read even small font sizes.

In portrait mode, the keypad is quite painful to use - the keys are tiny and not spaced out at all. Typing is a slow and careful task. Things do become a bit better in the landscape mode, but the key size is still a tad too small for quick typing without spelling errors.

As a basic phone, the Nokia 700 is a solid device. The call quality is great, and it retains network signal where most other phones aren't able to, particularly in elevators. Ambient noise around the calling party is sufficiently blocked out.

If you happen to be using your phone for medium amount of voice calls, with constant connectivity to social networking and IM, the Nokia 700's tiny 1080mAh battery will last a day. The need for a bigger battery is imminent in such a case.

The Nokia 700 does come as a disappointment. While hardware specs are solid and phone is built very well, what disappoints is the OS. If you have the budget to spend on this phone, we suggest you consider the Nokia Lumia 710 - combination of excellent hardware and an amazing WP 7 user interface experience.

Visbal Matbur

think digit DETAILED REVIEW: bit.ly/digit_nokia700

Customised medicine

Find out what the future of medicine holds. Tiny health monitors and tailored therapies could spell the end of illness <http://on.wsj.com/zlpum4>

Flipkart gone wild

Flipkart is all set to take on Jungle. It's gone into expansion overdrive with rumours of presence in Tier II & Tier III cities and towns

Bazaar

Sony BRAVIA KDL 55HX925

One of the best 55-inch smart TVs on the market

Sony BRAVIA KDL 55HX925 we get to see a much improved smart TV system. It's a 55-inch 3D LED backlit LCD TV having a native resolution of 1080p.

The stand that it comes with has to be screwed in to the base of the TV, so you will need some help in setting up the TV. Once screwed in, the sheer size of the TV commands respect. The glossy glass surface is quite reflective and when the TV is off, seems like a mirror. The Sony logo is placed in the centre at the base and it illuminates when TV is turned on. The glossy surface is a dust magnet.

There are a range of modes to play around with. By default in most of the modes, MotionFlow is activated. Motion Flow gives a sort of smoothness to the video by generating frames in between the actual frames, to give a more fluid video. We liked it in sports clips, as it succeeds in reducing judder due to fast movements. But while watching movies, we disabled Motion Flow as it tends to add an unreal element to the feel of the movie.

The TV sports the Sony XMB user interface, which is commonly seen on most Sony products such as the PS3 or Blu-ray players. Video quality was top notch. Colours were rendered very well and skin tones looked natural. In a dark room, you will notice that the blacks are quite deep, in fact if the dark black part is on the edges, it tends to merge with the bezel.

This is one of the few TVs that supports local LED dimming feature, which tends to dim backlit LEDs according to the scene when activated.

We also conducted the Lagom.nl tests. In the Contrast test, the blue, red and magenta bars tended to merge after block number 24. In the black level test, except for the first three blocks, each was easily identifiable. We did not notice any colour tinge which is great. Gradient banding was a smooth transition from black to white.

The 3D playback is decent so long as you have a high quality 3D Blu-ray video source. You can select the depth of 3D and also the type - side by side or top-bottom, even adjust the brightness of the glasses. You may want to keep your head steady, as the slightest bending on the left or right side, will cause the images to separate out. We did not like the 2D to 3D conversion at all. You cannot really see any depth there.

Among the numerous widgets supported, Facebook and Twitter are the most prominent. When you log in to Twitter for instance, the tweets can be viewed within the right hand side bar, with the TV content playing on the left hand side or you can go in the ticker mode. Facebook on the other hand takes you to the browser for logging in after which it can also be viewed on the side bar. If you are just going to read status updates, then the remote is fine. But if you want to update your status on either Facebook or Twitter, do not even think of using the remote control.

Bravia Internet Video connects you to a host of streaming video services including Dailymotion, Hungama, Star Player, among others. Sony has included the SET india



app which gives you access to 1000s of Sony India TV shows. You can browse through these exhaustive video streaming services if you get bored of watching regular TV. Also the integrated WiFi support allows you to wireless play content off your network drive.

Using Skype was a pleasure and its very easy to start a video call once you have connected the bundled camera to a USB port.

The remote control has a decent build quality and we really loved backlighting option. But having said that, it appears quite cluttered.

All this comes at a very hefty ₹2,59,900 which may seem very high. But then if you consider the features on offer - 3D support, connectivity to the net, a separate camera for Skype conversations, access to thousands of SET India TV shows, brilliant image quality, among others - we cannot complain much on pricing. Apart from the highly reflective screen, there arent any glaring faults with the TV as such. Recommended for those looking at a lifestyle product with the performance chops.

Nimish Sawant

Specifications

Screen size: 55-inch; **Video Processor:** Xreality PRO engine; **3D Support:** Yes; **Audio output power:** 30W (10Wx3); **HDMI port:** 4; **USB port:** 2; **BRAVIA Sync:** Yes; **WiFi:** Integrated; **Backlight:** LED backlit LCD; **Native Resolution:** 1080p

Contact

Sony India
Phone: 18001037799
Website: www.sony.co.in
Price: ₹2,59,900

8.5/10

Features	9.0
Performance.....	8.5
Build Quality	9.0
Value for Money	7.0

Micron CEO dies in crash

Steven R. Appleton, 51-year-old chairman and chief executive of the memory chip maker, died in a plane he was piloting <http://on.wsj.com/zigk2z>

Amazon's courier plans

Amazon has been granted approval to set up its courier service in India with Mumbai as its delivery hub

Fujifilm FinePix S2950

A basic digital camera dressed like the elder sibling

Fujifilm FinePix S2950 is an ultrazoom camera sporting 18x optical zoom. The ergonomics are very similar to the S3300 but build is a bit inferior to the S3300.

We used four rechargeable Uniross 2100 mAh Ni-MH batteries for testing. The lens cover tends to fall off more often than not which may seem off.

In good ambient light, the quality is fine - bright, vivid and noise free, albeit slightly on the softer side.

Shooting in low light conditions isn't a very pleasant experience. The distinct lack of crispness that is the problem with most nighttime shots is evident in low lights.



At ISO 400 you get good images, but the quality degrades around ISO 800 and higher. Shutter lag was quite noticeable which is not good.

Image Stabilization doesn't work well when you utilize the zoom capabilities of the S2950 nor in low light. Using

a tripod will help in both cases.

The menus are simple to use, and its been designed well. You can switch between the LCD and the EVF.

Image quality is bit of a mixed bag. Image stabilization is average at close to full zoom.

At ₹9,999 the pricing is quite economical as far as ultrazoom cameras go. If a budget ultrazoom is what you are looking at, this is a decent camera, but image quality and performance-wise, there are still better alternatives in this price bracket.

Visbal Matbur

Specifications

Sensor: 14MP CCD; **Lens:** Fujinon 18x optical zoom; **ISO:** 64, 100, 200, 400, 800, 1600, 3200, 6400; **LCD:** 3-inch; **Storage:** SD card; **Max picture resolution:** 4288 x 3216 pixels; **Max video resolution:** 1280 x 720 pixels (30Fps); **Other features:** Electronic Viewfinder and Panorama Shot; **Battery:** 4 xAA type

Contact

Fujifilm India Pvt. Ltd.
Phone: +91-124-4325500
Email: contact@fujifilmindia.com
Price: ₹9,999



Features	8.0
Performance.....	6.0
Build Quality	6.5
Value for Money	7.0

Specifications

Device type: Universal remote; **Connection type:** IR and RF combo; **Controls:** Touchscreen + physical keys, resistive type touchscreen; **Add-ons:** RF Blaster; **Compatibility:** works with 15 devices, 225000 compatible devices; **Battery:** Rechargeable, on dock

Contact

Logitech Harmony Support
Phone: 000 800 600 1133
Website: <http://www.logitech.com/en-in/contact>
Price: ₹25,995



Features	8.5
Performance.....	8.0
Build Quality	8.5
Value for Money	7.0

Logitech Harmony 900

A must-buy, if you can spend the moolah

While the Harmony 900 looks quite similar to its predecessor, the Harmony one, there are subtle changes to the entire package. The display now has a cleaner look to it, with themes. There are transmitters at the top and the bottom of the remote. An RF blaster is a part of the package.

Three vertical rows of keys along the length of the remote - keys on the two rows outside have a bulge to them. The Up/Down key, Pause and 5 have a depressed design. The entire key structure has been divided into five zones.

The display is a touchscreen, which is meant to work in

tandem with the keys on the remote - the 900 needs both as a team. Added are the Red, Green, Blue and Yellow buttons - for Blu-ray players and DTH set top boxes.

The usual pattern of set-up is via the Logitech Harmony Software. While it was seamless on Windows operating system, the remote refused to connect to the server on a MacBook. Despite multiple attempts, there was no handshake.



The rechargeable lithium-ion battery, lasts for a week, with a couple of hours of daily use. The rechargeable battery needs to have the remote cradled in the dock to charge.

While the Harmony 900 is an expensive universal remote, you will not fret about the expense too much. Good to hold, has oodles of functionality, remains very comfortable to use and looks very classy while doing all this!

Visbal Matbur

thinkdigit DETAILED REVIEW: bit.ly/digit_harmony

Wipro Aero Ultra Launched

Wipro has launched its first Ultrabook, the Wipro e.go Aero Ultra, which it is calling "India's slimmest and first 14-inch Ultrabook."

Time to Tango

A leaked benchmark sparks rumours of that Nokia will launch the Tango based Lumia 610 soon <http://bit.ly/z5ZNix>

Bazaar

Huawei U8510 Ideos X3

Entry-level Android phone with cloud storage

What the U8510 Ideos X3 brings to the table is a solid Android phone in the budget smartphone segment. The 3.2-inch display has a resolution of 480 x 320 pixels. It is a mighty bright display, and the wider level range helps a lot when you set it to auto brightness mode. The crispness is quite good and text readability wasn't uncomfortable even initially. Colour depth isn't very good though,

but the good thing is there is absolutely no gradation.

The Ideos comes with Android 2.3, and the Huawei Launcher UI on it. The Ideos has a 600MHz processor available. We had 7 apps open in the background, and the phone did not slow down at all.

The preloaded task manager gives you the stats of what apps are open, and allows you to close apps. It lacks the automatic app kill setting, and needs to be done so manually. You may still want to download something like an Advanced Task Killer.



Huawei has bundled the Ideos with the Cloud+ service. This offers 16GB of online storage, sharing files with other users, remote phone location and backup and restore services.

The 1200 mAh battery will last a day and a bit more, at medium usage.

The fact that you can buy this phone for around ₹9000 in the market, it is competing with the likes of the Samsung Galaxy Y and the LG Optimus Net P690. The cloud services bundled in the phone offer critical extra storage space.

Visbal Mathur

Specifications

Platform: Android 2.3; **Processor:** Qualcomm MSM7227 600 MHz; **RAM:** 256MB; **Display:** 3.2-inches (320 x 480 pixels); **Storage:** micro SD slot + 16GB Cloud storage; **Camera:** 3.15MP plus secondary camera; **Battery:** 1200 mAh

Contact

Huawei India
Phone: 91-124-4774700
Website: www.huawei.com
Price: ₹10,229

think digit
THE TECHNOLOGY MAGAZINE

DETAILED REVIEW:
bit.ly/digit_ideosX3

6.5/10

Features	7.0
Performance.....	6.5
Build Quality	6.5
Value for Money	7.0

Samsung Wave Y

The budget Bada

This is well and truly the salvo that Samsung has fired at the budget smartphone market, bringing its Bada 2.0 OS into the mix. The Wave Y comes with a 3.2-inch touch-screen with a 480 x 320 pixel resolution. This puts the Bada phone at par with most Android rivals in this price bracket. While the display doesn't feel very vivid in terms of colours, the crispness is a bit of a mixed bag. Text is easy to read but the fonts do seem a bit rough and unpolished.

The phone is much thicker than the Wave III. The back has the familiar brushed metal finish, and there are no faults with the build quality. There is

one hardware button below the display - Home. On the left spine is the volume rocker, while the power key is on the right.

Flip the Wave Y over, and there is the 2MP camera (with no flash) and the speaker. Bada ran very smoothly, throughout. The 832MHz processor ensured all apps ran well, and the phone never really felt like slowing down. While the number of apps on the Bada platform has increased considerably since we reviewed the Wave III, the quality of apps still needs some



fine-tuning. However, Bada does excellently when it comes to what the teenagers love - chatting and social networking. Preloaded is the ChatOn messenger, Yahoo and Windows Live messengers, and the Social Hub for access to Facebook, Twitter, LinkedIn and mail access to Exchange ActiveSync, Gmail and Hotmail.

For a price of around ₹7,950, the Wave Y won't be the first choice for most users. However, we think it is a phone and an OS that gives a neat account of itself - worth considering.

Visbal Mathur

6.5/10

Features	7.0
Performance.....	6.5
Build Quality	6.0
Value for Money	6.5

Motorola Gleam+ Clamshell

With many famous flip phones under its belt, Motorola has unveiled a stylish new basic feature phone, called Gleam+

Google's own tablet

Google may be planning to launch its own version of a 7-inch tablet very soon

Western Digital TV Live

A feature-rich portable HD media player with Wi-Fi support



The first thing that will strike you about the WD TV Live is its sheer size. At just 30mm in height and at 125mm at its longest side along with the light weight makes it quite portable. This compact HD media player also supports Wi-Fi. The Mochi user interface, which was seen on the WD TV Live Hub, makes a comeback on the WD TV Live.

The compiling of media library is an annoying process as it seems to take ages depending on your drive capacity and the content on it. Viewing HD content was flawless at 720p or 1080p. Upscaling content was not an issue. Colour reproduction was quite good. There wasn't any noticeable banding of solid colours. Video quality was good and we did not experience any skipping of frames or unwanted noise in scenes. Detailing while watching *Alice in Wonderland* was quite good and colours were very vivid. The remote control has a great build quality, but the buttons were a bit too hard to press. So status updates on Facebook will be less painful if you use a dedicated keyboard, thereby forfeiting one port. Setting up the media server is quite easy. The WD TV Live can be paired with your desktop or laptop as well. At ₹7990, we felt it was slightly overpriced.

Nimish Sawant

think digit DETAILED REVIEW: bit.ly/digit_wdtvlive

Specifications

Front port: 1xUSB port; **Rear side:** Ethernet, HDMI, USB, Composite A/V, Optical audio; **Video format support:** AVI (Xvid, AVC, MPEG1/2/4), MPG/MPEG, VOB, MKV (h.264, x.264, AVC, MPEG1/2/4, VC-1), TS/TP/M2T (MPEG1/2/4, AVC, VC-1), MP4/MOV (MPEG4, h.264), M2TS, WMV9, FLV (h.264)

Contact

Western Digital India
Email: omar.farooq@text100.co.in
Website: www.wdc.com
Price: ₹7,990

6.5/10

Features	7.0
Performance.....	6.5
Build Quality	7.0
Value for Money	6.5

Seagate GoFlex Satellite

A great companion for tablets and smartphones

Specifications

Capacity: 500 GB; **Interface:** USB 3.0, WiFi; **WiFi standards supported:** 802.11 b/g/n

Contact

Seagate India
Email: sandeep_joshi@melcole.com
Website: www.seagate.com
Price: ₹14,500

Seagate GoFlex Satellite is a network attached storage device with a difference. Instead of having a LAN port on the 500 GB drive, the Satellite has an in-built Wi-Fi adapter.

The Satellite comes with the USB 3.0 GoFlex adapter which connects to the SATA port located on the base of the drive. There is a USB port to power-in switch which can charge your Satellite drive.

With the iOS and Android devices you will have to disconnect from your current wifi network and connect to the GoFlex Satellite network.

You will need to download the free My Satellite app for using it on your tablet or smart-



stream an HD clip smoothly, by having the Satellite and the iPad in the same room, in adjacent rooms and even three rooms away. We also played an HD clip on the iPad, then tried accessing it on two smartphones. Although the smartphones easily accessed it, we did notice some amount of frame skipping with the smartphones, but the playback on the iPad was flawless. If you use a laptop or a netbook to access the Satellite drive, then it tends to download the file first and then play it. This is disappointing.

Pricing of ₹14,500 is ridiculous for a 500 GB version. We would advise you to wait till the pricing drops to sensible levels.

Nimish Sawant

7.0/10

Features	7.5
Performance.....	7.5
Build Quality	7.5
Value for Money	4.5

phone. Else you can open a web browser if you are on a laptop or netbook.

The range of the Satellite drive is quite good. We could

Bose Soundbar Home Theater

Bose India has unveiled two soundbar home theater setups in India, the Lifestyle 135 and the CineMate 1 SR

First world problems

A UK survey has found that a third of UK homes have to "struggle" with "low" 5mbps speeds

Bazaar

HP Officejet 6500A Plus

Feature-rich MFD with some unique attributes

The HP Officejet 6500A is a glossy black printer measuring at 18.75 x 17.72 x 10.17 inches. Though considerably light for its dimensions at 8.23 kg, the printer has a sturdy build quality. The glossy black exterior gives the printer a very upmarket but clichéd look. As long as the MFD doesn't attract dust or cleaned regularly, it will look classy in your home or office's desk.

A 2.3-inch resistive touchscreen is built into the front panel of the HP Officejet 6500A Plus MFD. To the right of the screen are alphanumeric touch sensitive buttons with backlight. These keys light up only when in use, but at other times



remain dark. The only physical key on the printer is the power button and is present to the right of the alphanumeric keys. The Officejet 6500A Plus' 250-sheet input tray has a very robust build, whilst the output tray's a bit flimsy.

The HP Officejet 6500A Plus e-All-in-One is stuffed with truckload of features. As the name suggests, you already

know it can Print, Scan, Fax and Copy, but what it offers more is the ePrinting ability. This HP printer lets you print documents via e-mail.

Apart from best print quality mode, the HP Officejet 6500A Plus e-All-in-One manages to spew out 10ppm. The overall output quality for text, graphics and images of the Officejet 6500A was quite good. Whether it involved reading fonts (in our text documents test) or differentiating between several gradients (test images), the HP Officejet 6500A Plus did quite well overall. This is a great choice for a SOHO MFD with a whole host of extra features.

Aniruddh Subramanian

Specifications

Type: Colour inkjet; **Max page size:** A4; **Scan resolution (dpi):** 4800x4800; **No. of ink colours:** Four; **Connection:** USB 2.0, Ethernet, Wireless; **Card readers:** SD, MemoryStick; **Power consumption:** 28W; **Extra features:** Touchscreen, ePrint, Duplex; **Weight:** 8.3 kg; **Warranty:** 1 year

Contact

HP India
Website: www.hp.com
Phone: 1800 200 0047 or 0124 387 7300
Price: ₹11,999

8.0/10

Features	8.0
Performance.....	8.0
Build Quality	8.0
Value for Money	7.0

Canon Powershot SX150IS

Feature-rich travel zoom which won't break the bank

Specifications

Sensor: 14.1MP CCD; **Image Processor:** DIGIC 4; **ISO Range:** 80 - 1600; **Zoom:** 12x optical; **Aperture:** f/3.4 to f/8.0 (W) and f/5.6 to f/8.0 (T); **Battery:** AA batteries; **Weight:** 306 g (incl batteries)

Contact

Canon India
Phone: 0124 4160000
Email: info@canon.co.in
Website: www.canon.co.in
Price: ₹9,995

7.0/10

Features	7.5
Performance.....	6.5
Build Quality	6.0
Value for Money	7.5

Canon PowerShot SX 150IS is 14.1 MP CCD sensor sporting camera with 12x optical zoom and has a 3-inch LCD screen without any viewfinder. It can shoot 720p video. It has many image stabilisation modes including Tripod IS, Panning IS which optimise the IS according to the use case.

The build is plastic and it does feel a bit cheap but its got a very good grip and feels solid in the hand. Layout of buttons is quite good, with a rotary dial for navigation.

Image quality is quite good, the colours appear natural. Upto ISO 400 you get really sharp images. Around ISO 800 noise starts to creep in,

fudging some details, but image is still usable. At ISO 1600 though, things get bad. We also found the Low Light mode to be useless as there was loss in detail. Barrel distortion is handled quite well at the widest end and we did not notice very high amounts of fringing either.

The 720p video shooting mode gives wonderful output provided you are shooting in brightly lit conditions, and avoid zooming. A peculiar issue with this camera is that while recording if you use the zoom rocker, you will hear the unwanted motor noise as the lens zooms in or out, which is annoying. Some of its



features such as Miniature Effect, Toy Camera effect are really cool to use.

The pricing of ₹9,995 is really good for this travel zoom camera which offers good image quality, full manual control and a good 720p video shooting mode.

Nimish Sawant

ASUS TF101 gets ICS

ASUS Transformer TF101 tablet has got the Ice Cream Sandwich update and will first go live in Taiwan

20 million SII sold

Just ahead of MWC 2012, Samsung has announced that it has sold 20 million units of Galaxy SII

Fujifilm X10

High performance comes at a price

The Fujifilm X10 is a premium point and shoot camera aimed at enthusiasts and dSLR users wanting a compact option to compliment their dSLRs. The X10 sports retro looks, similar to the classic Leica range finder cameras. The X10 is not a compact or a pocketable point and shoot camera, it is in fact one of the heavier point and shoot cameras sporting high quality, full metal body.

As far as the features and specs are concerned, the X10 is loaded with a lot of features and controls, but apart from the build quality and styling, there are four key areas where the Fujifilm X10 differs from the rest; the large 2/3-inch EXR



CMOS sensor, the bright F2.0 lens offering 4x optical zoom with aperture range of F2.0-F2.8, the optical view finder and the wealth of physical controls and dials at the back of the camera.

The large sensor combined with the fast lens results in fantastic image quality across varied shooting conditions. The camera can easily be pushed

to ISO 1600 and even ISO 3200 shots are very usable. The X10 is a fast camera as well, focusing is blazing fast and there is hardly any noticeable shutter-lag. The Fujifilm X10 does have some issues capturing very bright light sources, producing discs/orbs, we tested the X10 with the latest firmware which claims to have fixed the issue, but the problem is still not resolved completely.

With a staggering price tag of ₹39,999; we still feel that the Fujifilm X10 is overpriced for the Indian market.

Sobam Raninga

Specifications

Sensor: 12MP 2/3-inch CMOS; **Optical Zoom:** 4x; **Screen:** 3-inch 460K LCD screen; **Viewfinder:** Optical; **Burst mode:** 7-10 FPS; **Connectivity:** USB 2.0 and mini HDMI

Contact

Fujifilm India Pvt Ltd
Website: www.fujifilm.in
Email: contact@fujifilmindia.com
Phone: +91-124-4325500
Price: ₹39,999



Features	8.5
Performance.....	8.0
Build Quality	9.0
Value for Money	5.0

Cooler Master Notepal U Stand

Not just a laptop cooling stand

Specifications

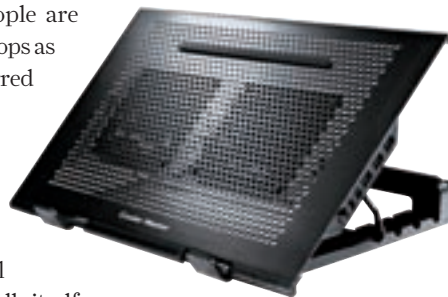
Color: Black; **Material:** Aluminium, plastics, rubber; **Weight:** 1.37 kg; **Connection:** 3 x USB 2.0, miniUSB; **Power:** 1.8 W, 0.36 A; **Warranty:** 1 year

Contact

Cooler Master India
Website: www.cooler-master.in
Email: sanket_naik@cooler-master.com
Price: ₹2,500

As more people are buying laptops as their preferred primary computing device (for home or office), there's a need to keep these mobile workhorses cool. Cooler Master's Notepal U caters to this need. It calls itself a laptop stand but it doubles up as an efficient cooling pad.

The Cooler Master Notepal U stand has an aluminium front with a perforated grill design that kicks back on an adjustable photo-frame like stand design. Two movable anti-slip holders are placed strategically towards the front edge of the stand to prevent the laptop from sliding off and crashing on the desk.



We tested it using the Lenovo IdeaPad Y570 laptop, which is quite thick and heavy, yet it sat nicely on the Cooler Master Notepal U's perforated aluminium front. The anti-slip holders kept a firm grip on the laptop's front, preventing it from sliding off the Cooler Master Notepal U. Not just an effective laptop cooling pad, the Cooler Master Notepal U also props up as an elevated laptop stand with sturdy build and thoughtful design.

It fully justifies its price for anyone interested in an innovative product.

Jayesh Shinde



Features	8.5
Performance.....	8.0
Build Quality	8.0
Value for Money	7.0

thinkdigit READ DETAILED REVIEW: bit.ly/digit_notepalu

Bazaar

QUICK
INSIGHTS
FROM INDEPTH
TESTS

The Digit Test Centre receives hundreds of products every month. Each of these products is put through a series of tests, and is finally given a verdict. The final score is arrived at after considering a number of factors and evaluating them in terms of features, performance, value for money, build quality, and, in the case of software, even ease of use.

For better understanding of our ratings, here's a quick guide to our overall score

- 1.0 - 3.0 - Extremely poor product. Keep away!
- 3.5 - 5.0 - Strictly OK. Not recommended
- 5.5 - 6.5 - Decent product. Go for it, but there may be better products out there.
- 7.0 - 8.5 - Very good product. Highly recommended.
- 9.0-10.0 - Ground-breaking product. We've never seen anything like it before. A definite must buy!



World's first 3D printed jawbone

In a first-of-its-kind operation, a 3D printer-created lower jaw has been fitted to an 83-year-old woman's face
<http://bbc.in/yR1dBn>

CABINET



Huntkey H403 cabinet

Price: ₹ 2,700

CELLPHONE



Maxx MTP9 Focus projector phone Review

Price: ₹ 6,999

SPECIFICATIONS

M/B Type micro ATX / ATX
Dimensions 475 x 190 x 450 mm
Expansion slots 7
Drive Bays 5.25" x 4; 3.5" x 7

Platform Java
Processor 208MHz
Display .. 2.8-inch resistive touchscreen
Camera 5MP

TEST CENTRE RATINGS (All Scores out of 10)

Features 7.0

A little low on features considering the price, but then it does have dust filters and grommets for liquid cooling.

Performance 6.0

An average mid-tower cabinet. It needs at least one more fan in the rear for proper air-flow.

Build quality 7.5

The one thing you cannot say about this cabinet is that it's flimsy. Well-built, the entire rear panel feels sturdy with very little flex. Side-panels are even better.

Value for money 6.0

At ₹2,700, it is a decent pricing for the quality you get.

Features 5.5

This is a basic mobile phone with the in-built projector as the unique proposition. The UI does show an inspiration taken from some Android phones.

Performance 5.5

The resistive touchscreen is bad. Projector is meant for light use. Interface needs a lot of working on.

Build Quality 6.0

Built well, and despite the thickness, it does have a slight advantage in terms of portability it offers.

Value for Money 6.0

Not bad, considering you get a good looking phone with a projector.

WE SAY

6.5

The cabinet is built well when compared to the many entry-level cabinets available on the market. It does have more features than the average cabinet but a few minor tweaks would have really helped. The PSU mount should have been at the bottom, there is no rear fan bundled and there should have been provision for USB 3.0 on the front panel. On the whole the cabinet is quite good and all the intake ports do have dust filters. e-SATA is also present for those who need it. The build quality does mitigate the lack of features.

6.0

The Maxx MTP9 does seem to perform without pressure. It's surprisingly light for its bulk. This isn't a smartphone, and was never designed to be one. It offers something extra - a portable projector. The resistive touchscreen isn't good and the UI is a poor rip-off. But we think it is a good deal, if you want basic projector functionality.

think digit
YOUR TECHNOLOGY NAVIGATOR

READ DETAILED REVIEW:
http://bit.ly/digit_mtp9

Safest cellphones

Check out the best and worst phones when it comes to cellphone radiation <http://bit.ly/xyjzgE>

Micron CEO dies in crash

Steven R. Appleton, 51-year-old chairman and chief executive of the memory chip maker, died in a plane he was piloting <http://on.wsj.com/zigk2z>

BLUETOOTH HEADSET



Jabra Supreme
Price: ₹7,999

GAMING MICE



Logitech G9x mouse
Price: ₹5,000



Logitech G500 mouse
Price: ₹4,500



Microsoft Sidewinder mouse
Price: ₹2,700

SPECIFICATIONS

A2DP support..... Yes
Multiuse device support.....Yes (2)
Noise Cancellation..... Yes

Resolution.....200-5700 dpi
Max Acceleration..... 30g
Tuning Weights..... Upto 28gms
Max Speed.....4.19m/s

Resolution.....200-5700 dpi
Max Acceleration..... 30g
Tuning Weights..... Upto 28gms
Max Speed.....4.19m/s

Resolution..... 200-2000 dpi
Max Acceleration.....20g
Tuning Weights.....Upto 35gm
Max Speed.....1.1m/s

TEST CENTRE RATINGS (All scores out of 10)

Features.....6.5
Active Noise Cancellation, Noise Blackout 3.0 and HD Voice enhancement technology

Performance..... 7.0
Call clarity improved considerably over the previous Jabra headsets. Noise cancellation works, and even Wind-Noise reduction does its job well

Build Quality.....5.5
Plasticky build quality and finish that doesn't justify the price tag

Value for Money..... 6.0
Pricey. You could also consider the Bose Bluetooth Headset Series 2

Features.....9.0
Packed to the brim with almost every feature that you would imagine a gaming mouse should have

Accessories.....8.0
2 interchangeable bodies depending on what you're comfortable with. Extra weights

Build Quality.....8.0
Well-built and sturdy. Body has a matte finish but isn't very rough

Value for Money.....7.0
Given the features and customisability of this mouse, it does seem worth the price

Features..... 8.5
Similar to the G9x, without the inter-changeable grips

Accessories..... 7.0
No extra bundled accessories other than a weights tray, but it doesn't really need anything more

Build Quality.....8.0
Well built and sturdy. Matte finish and rough thumb rests for better grip

Value for money.....8.0
Identical to the G9x in terms of the sensor and performance, it is definitely worth the price. A high-end enthusiast mouse

Features.....8.0
It only lacks a few extra buttons and a free-wheeling scroll mode

Accessories..... 8.5
Includes everything from extra weights to skates with varying levels of teflon

Build Quality..... 7.0
The body seems to be made of cheap plastic, but it is actually quite sturdy. Ergonomics could have been improved on

Value for Money.....8.0
At ₹2,700 this mouse is actually worth the money. A better design would have worked wonders

WE SAY

6.0

There are a lot of features available, at least on the spec sheet. Thankfully, unlike the past Jabra Bluetooth headsets, this one delivers on the potential. Call quality is extremely good, and the features such as wind-noise reduction and noise cancellation adds up well for a clear call experience. However, the build quality is a huge letdown, and doesn't justify the huge price tag. It is plasticky and feels light on solidity. You could consider the Bose Bluetooth Series 2 as well, or the Plantronics Discovery 975 that costs almost half as much.

8.0

One of the best gaming mice we have had the pleasure of testing. The mouse is comfortable to use and the interchangeable grips ensure a comfortable fit regardless of how you like to hold your mouse. Other features like the option for a ratcheted or free-wheeling scroll-wheel are nice. Considering the cost, only a true-blue gamer will be able to take full advantage of this mouse. One drawback we did notice was the very stiff middle-click, this is not really a major issue and is a minor flaw in an otherwise perfect device.

8.0

This is one large mouse, about the size of the Razer Imperator, it houses the same sensor as its elder brother, the G9x. As expected, it performs as well as the G9x and is, in some ways, easier to use. The switch for the scrolling mode is easier to access on the fly and the middle-click is nice and smooth, unlike that on the G9x. The drawbacks? This is quite a large mouse and will only work for those people who are comfortable with that style. Also, the thumb buttons are a bit awkwardly placed and very easy to hit by accident.

8.0

Despite being quite an old mouse, this device still has the essential features required of a gaming mouse. On-the-fly dpi-switching, adjustable weights and a few extra keys thrown in. Performance-wise the mouse is manages as well as any other mouse but it is the ergonomics and design that are a bit funky. The mouse is quite large, but not as comfortable as, say, the G500. Also, the macro key is placed so far ahead on the body that it is quite difficult to press. Overall, a decent mouse and maybe even worth it considering the features.

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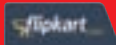
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Top 9 Graphic Novels

So you grew up all your life thinking that comic books were for sissy teenagers who couldn't handle long, exhaustive novels, did you? Well, we don't want to pick a fight but you may be partially right. But, comic books or graphic novels don't really have to be your companions during the young adolescent phase of your life. Oh no, sir!

Graphic novels do have gripping plots (sometimes) and almost always have captivating art work that has the potential to take one's breath away. Here's a list of some of the most widely recognized graphic novels that are a must read for everybody.

Watchmen

Watchmen doesn't warrant any introduction, some say this is the best graphic novel ever written. A story about super heroes told in a way it's meant to be told by one of the world's most prolific writers. It's often compared to Ulysses, this tour-de-force is both

complex and entertaining at the same time. Though the film tried, it doesn't even come close to the brilliance of the source material. A must-read for any self respecting comic-book lover.



V for Vendetta

V for Vendetta, made the Guy Fawkes mask cool before Anonymous was even born. It may be set in the 80s and showcase a very dystopian view of the future, very similar to 1984 or Blade Runner, but it speaks of the fight for personal and societal freedom in any era or culture.

The Sandman

The Sandman is what you get when one of the world's most kick-ass story-teller joins hands with the best graphic artists. The stories start with a man trying to capture the physical manifestation of death but captures the King of Dreams instead.



300

300 is all about these 300 Greek/Spartan dudes who stomp the hell out of like a million other dudes. Miller's retelling and Varley's art is terrific, as always; the combat scenes are especially powerful. Kudos to Zack Snyder for being able to recreate the comic in the movie panel by panel.



The League of Extraordinary Gentlemen

The Justice League of the Victorian age, this novel brings together Captain Nemo, Allan Quatermain, Dr Henry Jekyll and the Invisible Man to fight the menace of Fu Manchu. Unlike the movie, the comic is over the top, exquisitely drawn and engaging.

Batman: The Dark Knight Returns

Christopher Nolan would've never gotten his Batman if it wasn't for Frank Miller. The dark, brooding character that we all know was born from this classic. This story is important not only for Batman, but also for comics in general.



HP Folio 13 Launched

HP has entered the Ultrabook market in India with the launch of the HP Folio 13 for ₹69,990
<http://bit.ly/Aq9N4j>

LG MWC Extravaganza

LG will unveil 6 new Android devices at MWC – the Optimus L3, L5, L7, 3D Max, 3D Cube and 4X HD
<http://bit.ly/wZeGM8>

Unwind

From Hell

Dark, gripping and not to mention minutely researched, this piece of crime fiction about Jack the Ripper, the most infamous serial murderer of all time, is a work of pure art. Alan Moore has Dr. Gull acting as the villain, but a villain who works at the behest of the head of the British Monarchy at the time. He ends up creating the most compelling and terrifying psychological study in horror ever undertaken.



Maus

Maus is a brilliantly conceived and executed autobiographical account written and drawn by Art Spiegelman. A story about how his father, Vladek Spiegelman, a Polish Jew, lived and survived in Hitler's Europe. Spiegelman addresses the horrors of survival using anthropomorphical animals like mice for Jews (and thus the title), cats for the Nazis and so on. The story is a symbolic interpretation of his and his father's own struggles.

Ronin

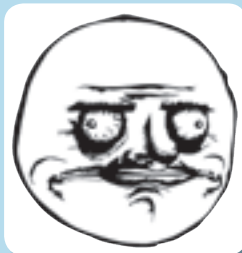
Ronin is what you get when you cross The Last Samurai with Robocop, along with some exquisitely drawn illustrations. The story is about a "ronin" (a Samurai without a master) who's trapped inside a sword along with a demon but is released in the near future. They fight each other again, but are powered by cybernetics and bionic implants.



How we unwind

9gag

We have a few gaming mice left over from the gaming accessories test of a few months back and never has the free-wheeled scrolling feature come in more useful than in this past month. 9gag dramatically increased its page length and now we can browse 9gag 'like a boss' with just a flick of the wheel. A very useful feature considering that the website is now a staple feature of the Digit diet. Heck, we've even started redecorating our bathroom based on the memes.



CID

The show has enjoyed a following from certain members of our team. When we suddenly discovered that the Sony TV we received came bundled with access to the entire series, we just couldn't help ourselves. The work stopped and we settled down in front of the TV to relive the old episodes. Daya's "one tight slap" and experienced ACP Pradyuman's "keen" intellect again.

Gaming in 3D

A 55-inch, 3D ready TV, a PlayStation 3 (courtesy of the Big Daddy), a cupboard full of 3D ready PS3 games. It would be a crime not to try them out and we did. A few hours of 3D gaming bliss were all we needed to get us through the long nights. Batman- Arkham City never looked better. We've decided to try and keep the TV back for more tests. (wink wink)



This month started off on a somewhat sad note, Aniruddh "DoubleDee" Subramanian announced his intentions of pursuing higher studies and decided to quit. Mithun was the hardest hit by this loss but he took it like a man all the same. All of us from the Digit team wish Aniruddh all the best in his pursuits. On a lighter note, Nimish bagged a trip to Japan to check out Canon's facilities over there and ended up having a whale of a time. He did expect to find communication to be a bit of an issue, but was rendered speechless when he found one of the Japanese speaking fluent Hindi and Urdu. Fortunately, he managed to recover his mental faculties long enough to have a meaningful conversation with the man. His videos of himself enjoying authentic sushi has sent the "Big Daddy" into a depression. All in all an eventful month.



GRAND SLAM TENNIS 2

Jayesh "Big Daddy" Shinde
feedback@skoar.com

Compared to the original Wii-only predecessor, *Grand Slam Tennis* -- which was a casual cartoony affair, *Grand Slam Tennis 2* is a much more serious attempt towards giving tennis aficionados a world-class virtual tennis game to play and enjoy. Being an EA title, you know the studio will leave no stone unturned to make the game as realistic as possible. The tennis players are created with amazing visual detail- each with their individual playing styles and on-court mannerisms. You can play at all the four major tennis tournaments- Australian Open, French Open, Wimbledon and US Open- and a select few EA competitions at different locations around the world. The courts are spectacular, and the pace of game actually changes from surface to surface -- clay court games are full of rallies, while the hard court surfaces are full of games with heavy baseline shots. Forget the visual brilliance, what will keep you busy in the first few hours of *Grand Slam Tennis 2* is a whole lot of practice sessions to figure out the overhauled controls. EA calls it "Total Racquet Control" and it places a heavy impetus on the PS3 and Xbox 360 controller's right analog stick. It's a careful

combination of power and precision. Apart from a carefully placed lob and drop shots, all other strokes- flat, top spin and slices- including shot direction are fully controlled by just the right analog stick. While EA provides a classic button-enabled option, we highly recommend the new Total Racquet Control system to play virtual tennis games like never before. Sure, it does take time getting used to- heck, it's also agonizing and frustrating at times- but it's a good system. At times the dividing line between a top-spin backhand and a sliced backhand are non-existent, but such instances are few and far in between once you master the Total Racquet Control mode. Overall, EA has built a unique system that it will no doubt fine-tune in the game's next iteration. One of the greatest USPs of *Grand Slam Tennis 2* is the mix of modern greats and past legends on its roster of players. Talking about comparing players from different generations based on stats and numbers, here you can actually pit Sampras against Djokovic, McEnroe against Nadal and Sharapova against Navratilova and many more.

The game also supports Move motion controller, in case you need a good workout. Online gameplay with friends or random listed games is a fun experience as long as you're on at least a 1 Mbps connection.

Verdict

Not all is hunky dory with *Grand Slam Tennis 2*, though -- how we wish it was. Despite our thumbs up to the Total Racquet Control mode, mastering the controls is a bit difficult. We are extremely disappointed that EA didn't spend time on including a few more players (male and female) to attract greater attention and give gamers more choice. Why there isn't a likeness of such stars of the tennis world as Caroline Wozniacki, Martin Del Potro, Kim Clijsters or other more exciting players, one will never know. The in-game commentary by John McEnroe and Pat Cash is largely repetitive, which can distract you rather than immersing you in the game. *

MOAR!

- » **Developer:** EA Canada
- » **Publisher:** EA Sports
- » **Platforms:** PS3, Xbox360
- » **Price:** ₹2499 (PS3), ₹2699 (Xbox360)



THE DARKNESS II

SKOAR!

TWO DEMONIC ARMS + GUNS =

LOADS OF FUN!

Jait 'Foxymoron' Dixit
feedback@skoar.com

The Darkness II is a profanity laden tour-de-force something along the lines of Sopranos meets Exorcist meets Kill Bill.

The game takes place two years after the events of the previous game, Jackie Estacado, our protagonist is trying to come to terms with the death of his girlfriend and at the same time is able to exercise a measure of control over The Darkness, which manifests itself as two demonic arms sprouting from his shoulders. Just when things begin to look up, he's pitted into an all-out gang war against a shady rival faction called The Brotherhood.

What follows is absolute mayhem, as Jackie goes about ripping people apart,

some major plot twists, backstabbing and double-dealing when demons and mafia are involved but alas, the plot is nearly linear. Not that we're downplaying the scary parts, the heebie-jeebies come by the dozen and the game manages to haunt you long after you've completed it.

The Darkness II is a decent enough shooter for sure, you have the usual arsenal of pistols, SMGs, rifles and shotguns at your disposal, but its the two grisly demonic appendages with a taste for human heart that redefine "pwned". You can use them to lob almost anything, including chairs, drums, rotor blades, etc., and also to stun the enemies as well as slice and dice carcasses. Then are the executions that everyone is raving about, among the particularly gruesome and depraved ones



is one where you grab the unfortunate opponent's leg and then proceed to rip out the said foe's spinal column from his posterior. All these actions earn you "dark essence" which you spend enhancing existing skills and acquiring new ones. Bear in mind, this game is not for the squeamish, the amount of gore, blood and cuss words could even make Quentin Tarantino blush.

The sound effects are well, nearly perfect and you can actually hear bones and cartilage snap and rupture. Not to mention the fantastic voice acting and background music, Mike Patton as the

turning the city into an abattoir, trying to find a reason behind The Brotherhood's attacks and the true intentions of The Darkness. The story is also much more personal and at times touching, as compared to its predecessor. One does expect

Verdict

There isn't much replay value as at some point, making human shish kebabs loses its charm, and the only thing close to multiplayer is the Vendettas story which allows you to play the missions co-operatively. All in all if you have a stomach for violence and enjoy tearing up people into little pieces, want a little gun play but can settle without multiplayer, then The Darkness II isn't a game to be missed.

MOAR!

- » **Developer:** Digital Extremes
- » **Publisher:** 2K Games
- » **Genre:** FPS, Horror
- » **Platforms:** PS3, Xbox360, PC
- » **Price:** ₹999 (PC), ₹2,799 (Xbox 360), ₹2,499 (PS3)



Darkness is an absolute treat. Visually the game is brilliant and makes full use of cell-shading techniques.

The game is undoubtedly well-made but it has got its own share of problems. The AI is absolutely horrible and even the boss fights are lame. At normal difficulty, the game is a breeze with only the advanced difficulty posing a challenge. Another surprising thing about The Darkness II is its length, its excruciatingly small. The single-player campaign offers about six hours of gameplay. Apart from the online/offline Vendettas side story about four Darkness mercenaries working for Jackie, which takes place parallel to the single-player story line, the game has nothing else to offer. *

SKOAR!

ASURA'S WRATH

God of War in Asia



Jait 'Foxyoron' Dixit
feedback@skoar.com

We didn't quite know what to expect when we started reviewing Asura's Wrath. It had been in the news for all the right reasons, the videos looked mind-blowing and the story vaguely similar to a famous PS3 title. The game has been both an epiphany and a huge letdown, an epiphany as far as story-telling in games go, but a letdown in gameplay.

We won't delve much into the plot as it seems merely in place to facilitate the violence. The story is about an internal power struggle among the generals of the gods who stay in a giant Buddha-shaped spaceship (we kid you not). Asura's wife is killed and his daughter is kidnapped by the other generals, the rest of the game is about how he attains revenge.

The visuals are splendid, the graphic artists have done a great job in capturing the mythological, sci-fi world. The game plays out as an anime and is divided into 18 chapters, each chapter lasting about 20 minutes. Each of the chapter has its own opening and closing sequences with incredibly detailed bumpers, along with a short manga-style narrative

which gives you a little more insight into the minds of the characters.

Most of the game unfolds as self-indulgent cut scenes and you're merely a spectator. Combat is over-the-top, gratuitous and entertaining. It's the usual button-mashing fest with a string of QTEs thrown in to keep things a bit lively. Most of the times you're fighting with your bare hands, sometimes with six and sometimes without any (you sort of indulge in some head-butting). Then there's the "burst mode", basically you go on bashing the enemies, performing combos until your burst meter gets full, and irrespective of how many enemies you're fighting, you'll perform a series of moves which will lead to the largest of the enemies (usually a giant fat Buddha or a gargantuan tortoise) biting the dust and the rest of them magically disappearing. The game propels you into the next section of the narrative, as soon as you complete a burst.

The boss fights are the most entertaining, especially the one with a mini-planet sized general called Wyzen and the Dragonball-Z like fight that ensues, finishing off with Asura being skewered at the end of a mile long sword. One thing to point out though, the QTEs function regardless of whether you press the button.*

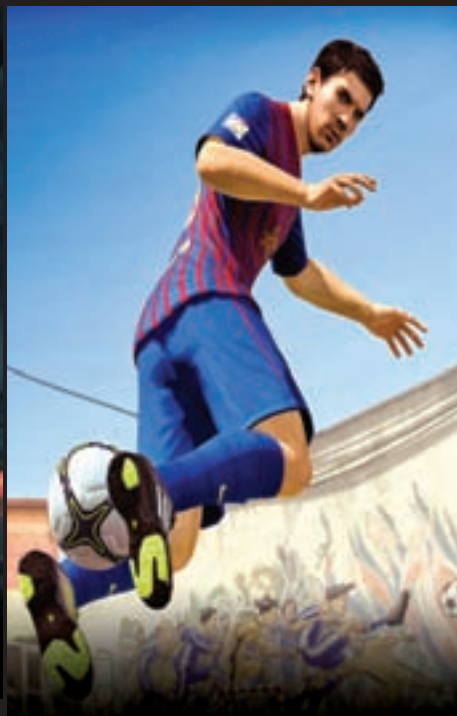
Verdict

What plagues this game is the incredibly short playing time of 6 hours, and the fact that it has got no real replay value. Who in a sane frame of mind will go through the excruciatingly long cut scenes just for the story? Despite this, it's an excellent attempt to break out from the crop of usual action games, but only recommended if you haven't got anything more interesting at hand.

MOAR!

- » **Developer:** CyberConnect2
- » **Publisher:** Capcom
- » **Genre:** Action, Beat em' up
- » **Platforms:** PS3, Xbox360
- » **Price:** ₹3,299 (PS3 & Xbox)





Epic games of the month

Mass Effect 3

The final chapter in the *Mass Effect* series featuring Shepard is one of the most hotly anticipated RPGs to be releasing this year. The game features a vastly improved combat system and is supposed to provide a fun and action-packed third person shooter experience, coupled with the depth and complexity of a true RPG. Bioware has worked overtime on this game and had in fact started development even before *Mass Effect 2* was released. Many of the pivotal characters of *ME2* – including Liara and Kaidan – are making a comeback, and the game now finally includes femshep! Who is femshep? The female version of Commander Shepard of course (as the fans call her).

The developers have gone through great pains to ensure that the fans of the series are well rewarded for their troubles. Those with saves from the previous game in the series can use these saves to influence the outcome of certain conversations, as well as the entire final chapter. The game also includes an “action” and a “story” mode alongside the normal mode, giving players a chance to play the game the way they want to. This game looks like it's going to be one hell of a ride. Time to start polishing your controllers.

FIFA Street

All of you waiting for a *FIFA Street* game since the past four years, your agonizing wait will soon be over. In fact, later this month – no need to look at the calendar. The shiny new *FIFA Street* will obviously be better than all previous titles. But how much better? Will it really be worth your money (and the four years of waiting time)? You betcha!

From what we know, the game's based on the revamped *FIFA 12* engine (we all loved it, didn't we now?) and gets rid of all cartoony-player profiles. Authenticity is the name of the game in *FIFA Street*, and EA couldn't emphasise it any better. Especially when it has a person like Gary Paterson, himself a street football fan, in charge of the FIFA franchise.

Apart from improved street locations, the game features an exhaustive array of street soccer teams from around the world. The game will allow you to enact twice the number of trick shots than in the previous version, not to mention a new attacking system and a whole bunch of skills to keep you hooked. If all that wasn't enough, online gameplay will ensure you never leave the house on weekends. So yeah, later this month, it will be time to put on your game shoes.

Resident Evil: Operation Raccoon City

Another blockbuster game releasing this month, *Operation Raccoon City*, is part of the long-running Resident Evil franchise. We managed to get our hands on the game at a sneak preview, courtesy Milestone Interactive and we must say, the in-game graphics were quite impressive on the PS3. Fast-paced and hectic, the combat never lets up. Action-packed from the word go, multi-player is engaging and fun and from what we could gauge, the game seems to have a lot of replay value.

Operation Raccoon City is set during the events of *Resident Evil 2* and *3*. In an interesting new twist to the series, you can now play as Umbrella Corp. assassins and can even decide whether you want to kill off the main protagonists in the original storyline. The game also features some new and interesting multi-player modes, a unique aspect of which is that if you get into a fight with a zombie, you'll actually get infected, die and turn into a zombie yourself – at least until you're shot in the head.

The game introduces “bleeding”, which means that the player's screen turns red and s/he becomes a larger target for the zombie horde! What could be more fun?*

Apple Attennagate Settled

Apple has settled the iPhone 4 antenna lawsuit, required to pay out \$15
<http://bit.ly/xrNT8v>

Angry Birds Space

Rovio has announced Angry Birds Space, which will be releasing on March 22
<http://bit.ly/wCpJlg>

Hip hip hooray!

Digit congratulates all the winners of Windows App Challenge Contest

The Windows Apps Challenge, which started on the 3rd of January has been going on for quite some time now. For this challenge the participants had to develop apps for the Windows Phone platform, and if their app(s) made their way to the Windows Phone Marketplace, they stood a chance of winning a brand new Windows Phone device, not to mention a host of goodies from Digit. We received an overwhelming response from our online community, so much so that we had to extend our deadline from 31st January to the 29th of February. We thank all the participants of this contest for making the first phase of this contest a huge success. You have put in the best of your effort and time in building really useful apps for the Windows platform. Now, meet the featured winner for the month of January who submitted the maximum number of apps.

Featured Winner



Aashish Jagini

Wowww....I'm on Digit, I feel very elated. This has all started from my passion. From the time I was a Microsoft Student Partner I was very much interested in Microsoft's Technologies and I used to love Windows Phone app development. I used to spend my free time in developing WP7 apps and I got habituated to it. Suddenly one day I found Digit was hosting a competition and that was a perfect platform to show everyone how much I love WP7 app development. I really didn't do this to win the prizes but

just to exhibit my passion and interest towards WP7. WP7 is completely different from the other Mobile OS's and is really amazing, you will know it only once you try it. I would suggest developers to try it once to know how powerful it is. And finally I would like to thank my parents for what I could do. My mother always wanted me to be special than the others and my father always gave me immense support in everything. Only because of my Mom's wish of me being Special, I tried it and I'm here today.

Aashish is now the proud owner of a Windows Phone smartphone along with an accompanying accessory. He also received 6 month Digit Subscription and a gift voucher worth `5000. Other contestants are also eligible for a Windows Phone smartphone. Once again congratulations to all the winners.

Aashish Jagini	Arjun S Bharadwaj	Harshwardhan Joshi	Rajesh Gangam
Abhishek S	Bijoy Thangaraj	Kamalakshan	Rovin DSouza
Amit Gupta	Chandan	Prateek Narang	Sanket Tarun Shah
Anantheswar G	Chintan Dave	Preeti	Saurabh Agarwal
Anshul	Deepak	Priti Chatterjee	Vinay Kumar Singh

Head over to www.thinkdigit.com/forum for some of the best discussions, buying advice and user reviews. Of course, you'll meet like-minded (and not-so-like-minded) geeks, leading to some of the most constructive arguments you'll ever have.

Check out the thread below where some of our active members are in a discussion on whether to wait for Intel's Ivy Bridge architecture or go with the current Sandybridge. For the full story follow this link bit.ly/YRa3H

19-02-2012, 09:03 PM #1 (permalink)

Vishnupp45
 Right Off the Assembly Line
 Join Date: Nov 2011
 Posts: 13

Re: New pc build. Sandy bridge or wait for Ivy bridge?

Hi I currently have selected i5 2500 non-k processor with dh67cl mobo and 4 gb ram. The question now is that shall I wait for ivybridge at the same pricing range or just buy the config within a week? I will be using the pc for playing games at 720p resolution and mostly for studying, entertainment.

19-02-2012, 09:55 PM #2 (permalink)

thetechfreak
 Huron Spartan
 Join Date: Nov 2008
 Location: Gwalahat
 Posts: 4,492

Re: New pc build. Sandy bridge or wait for Ivy bridge?

reports came out recently that the Ivy bridge was delayed. if you can wait, then wait. initially they will be priced high IMO.
 Last edited by thetechfreak; 19-02-2012 at 10:01 PM.

Toshiba Sparkling Satellite

Toshiba has launched two new laptops in its Sparkling Satellite series (L740 and L750)
<http://bit.ly/z5gDe3>

It's all in the name

Easily pronounced name makes people more likeable says a study carried out by NYU
<http://bit.ly/yEEsKF>

Community

Skud
Dust in the Wind
Jan Date: Jun 2014
13 (permalink)

Re: New pc build. Sandy bridge or wait for Ivy bridge?
Wait means June-July 2012. If you are in no hurry, then wait.

Gaming Rig:
i7 2600k || CM N620 || ASUS PRZ68 Deluxe || 2x4GB GSkill RipjawsX 1600MHz || OCZ Vertex 3 120GB || Razer Cyclos Bundle || Sapphire 8850 1GB || BenQ G2420HD || Corsair HK750 || Lancool R62 || Altec Lansing VS2421 || ASUS Vulcan ANC

Sam
Forum Staff
Jan Date: Sep 2011
Location: India
Posts: 189
14 (permalink)

Re: New pc build. Sandy bridge or wait for Ivy bridge?
Buy PC now and when you feel the need for higher performance, overclock it (get K series for that), if you wait for Ivy Bridge, you'll be forced to wait for pricecut, Nvidia Kepler, pricecut in HDD, etc. don't wait.
Common Sense, the most uncommon thing in this world !!!
FAQ + answers for new members. For any sort of query, check the link before asking moderators. Save your time (as well as ours).
Read all sticky threads before starting a thread or asking for any type of query. Those are there for a reason.

funskar
Broken In
Jan Date: Sep 2011
Location: India
Posts: 189
15 (permalink)

Re: New pc build. Sandy bridge or wait for Ivy bridge?
Don't wait... get a i5-2500k proccy wid p67-p68 chipset... and Ivy bridge proccys will b only 7-8% faster than sb bt they will b minimum 20% costly than sb...

Vishnupg45
Right Off the Assembly Line
Jan Date: Nov 2011
Posts: 13
17 (permalink)

Re: New pc build. Sandy bridge or wait for Ivy bridge?
I am avoiding the i7 series to save for graphics card. And as suggested if I get the i5 2500k with p67 or p68 mobo how much will be the price difference with i5 2500 non k with dh 670i mobo?

iOS vs. Android: Flame-wars on the Digit Facebook page

Nash Vail Okay so we've got one more apple hater . Anyways you never regret after buying an apple product . If you are a regular phone user and are into only stuff like calling messaging and making some notes and stuff and not into things like you know if you use your phone for emails tweets Facebook gaming , planning your day and stuff like that you should go for the iPhone 4s . First is the violent simplicity of ios second the largest app database in the world whether you want to remote control your PC PLAY some high end games , enjoy movies of any format or music there's an app for everything literally anything . Siri does have indian accent support I mean not officially but the nuance speech recognition understands . Don't believe me search on YouTube "Siri reacting to Indian accent" other features like iCloud and stuff makes it even better and what's great is it can be jailbroken so it opens a whole new world to you . You can install i strongly don't recommend this but just for testing purposes you can get apps free of cost if you are jailbroken . Games like infinity blade are still exclusive to ios . I don't say android is bad but iOS is just the best . Siri is really a darling .
Monday at 7:17pm - Like - 451

Ardhya Bhatt okay so finally we got a fan boy 1)Having d largest app store doesn't affect cuz they all are paid..so u mean its total intelligence to first purchase a 50k cellphone den invest each month extras to get some crap apps while d same on andro...
See More
Monday at 9:12pm - Like - 451

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- * THOU SHALT UTILISE THY BRAINS
BEFORE THY POSTETH
- * THOU SHALT NOT INCITE FLAME WARS,
NOR INDULGE IN ONE
- * THOU SHALT NOT CLAIM CREDIT
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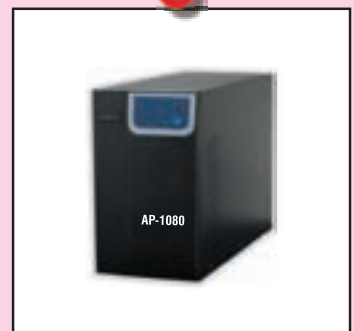
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