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Reborn, redone, rethunk

As Digit starts its twelfth year on its crazy journey through the gigantic world that is technology, I took a little time off to re-read some of the older issues*. We sure have come a long way, and I don't mean just the magazine, I mean you, me, technology, India, everything.

Most of the queries we got from our readers back then were troubleshooting in nature, because we were still getting used to technology, and screwed up often while using it. The focus gradually shifted to how to use, more than anything else, as PCs became commonplace – at least amongst our readers. Everyone was looking to improve skills and become a whiz. Fast forward to today, and all of the confusion seems to be about what to buy, given all of the myriad options available to us. Of course people still struggle with new technologies, and want to enhance skills, and we continue to try our best to provide that information to you.

Traditionally, changes in trends were easily visible to us by closely watching what the early adopters we up to – the geeks, the enthusiasts...you. Yes, you, as Digit readers, and people who were passionate about technology were the trendsetters. Not anymore.

With technology no longer niche in any sense whatsoever, it's the masses that drive adoption of standards and trends. Facebook is the runaway success that, say, Anand Tech could never be. Thanks to Google, nothing you want is ever more than a few clicks away, and Apple rules the technology world because they simplified everything.

That's not all though, because we've gone from being a "cool" minority of trendsetters, to those few irritating chaps that actually know the difference between a good product and a bad one.

Although the cover story isn't really about this, I think it's still important that people understand where technology is headed.

Every third IT student I know of wants to be a "developer". Everyone with a desire to do business wants to develop apps, because that's where the money is. However, no one seems to have a clue as to what the public really wants...

It's at a time like this where it's true creativity that will win the day. True success here in India will not come anymore from giving people what they want, because people don't really know what that is anymore. The real genius is to figure out what people *need*, even *before* they realise it themselves.

We can't sit around being a me too anymore. That worked when we were able to undercut everyone and offer them a cheaper rate – a good deal. Everything but hardware is free now; Google, Facebook, Twitter, etc have seen to that. Besides, we never paid for a few million lines of code before, so why would we pay for a few thousand that run on a phone?

Advertising and mining your data is where the real money is, and all that's needed is a hook to get you to use an app, service or site. It's all just about what's popular, what's cool.

What does this mean for the rest of us though? If the masses aren't interested in gaming on 4K resolutions, does that mean GPU manufacturers will focus only on tablets? If low-power and long battery life is all that counts, where do we performance junkies get our fix? Perhaps all of us in the geek business are going to be forced to go the Facebook way or die.

That doesn't mean we have to go quietly into the night, of course. Just because all you see around you are products and advertising that are targeted at the general public, doesn't mean you should assume the big names will not listen to you. Neither does it mean that this magazine will dumb down to pander to them either. A readership of 2,75,000+ might seem like a drop in an ocean of 1.1 billion, but it's still the largest group of technology enthusiasts in India.

As much as we'd like to, we obviously can't make sure everyone of you is heard, but we certainly want to try and get some of you to come with us to press conferences, meet with industry heads, use their products – sometimes before they're even launched to the general public. We want to encourage some of you to write for us, to offer us your opinions, to be heard above the noise that is being produced by mass advertising blitzkriegs. How? Turn to page 77 for a simple URL that will give you those details. Only 50 of you will make the list, but I promise you, they will be the best representatives of this Digit family that we can find.



Robert Sovereign-Smith
Executive Editor
editor@thinkdigit.com

"If the masses aren't interested in gaming on 4K resolutions, does that mean GPU manufacturers will focus only on tablets?"

** Find all past issues of Digit and Fast Track (until December 2011) on the DVDs.*

Liked or hated this column? Write in to *editor@thinkdigit.com* and let me know your thoughts.

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Brand	Page No
Abacus	31
Asia Power	144
ASRock	59
ASUS	7,9,97,99,107,113,
D-Link	21
ECS	17
Esdee Business Machines	83
Fenda	143
Garmin	43
Gigabyte	41
iBall	5
iBall	79
India AV	141
Karbonn	103
Kaspersky	Back cover
Kingston	15
Lipap	51
Nokia	23
NVIDIA	35
Panasonic	94,95
PNY	37
Qualcomm	IFC
Quick Heal	85117
Retina	47
Ricoh	13
RP Info	49
Safenet	111
SBI	55
Seagate	27
Smartlink	19,61
Symantec	25
Texonic	133
TopGun	63
Toshiba	Back inner
TP-Link	105
Trend Micro	45
Western Digital	29
Wiley	89,91,93
Xerox	3
ZOTAC	101

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In the event of a dispute, the Editor's decision shall be final.

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ASUS ROG Tytan CG8565
Biostar TZ77XE4
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Nikon CoolPix S9300
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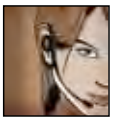
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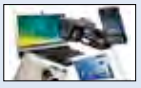
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Airtel bagged the "Star News Viewers Choice Best Mobile Network" award through a survey conducted by Star News and ZipDial. It also won the "Best Quality Mobile Network

Feedback for the May 2012 issue of Digit



✉ I started reading Digit from December 2011, after hearing about it from my friend. I have enjoyed reading it so much that I am planning on subscribing to it. First of all, kudos to your entire team for coming up with such wonderful issues month after month.

Most of the articles are so nice that I, being a person with very little technical knowledge could grasp many things without much of a problem. The short and comprehensive introductions given for each topic are really good. I really loved the list of accessories compiled by your team in the May issue. Giving a set of those IDEs on the DVD in the April issue was a very nice idea. And the Fast Track to Windows platform was truly great. One thing that I felt Digit could add on is on the Fast Track front. You can maybe think about having more than just one Fast Track a month. I mostly end up finishing the whole magazine and Fast Track within 10-15 days of buying it.

My best wishes to you & your team to continue doing successfully what you guys have been doing till now.

K Chandirasekaran

Welcome to the world of Digit. You're a new entrant, no doubt, and sadly you missed the 2 Fast Tracks vs 2 DVDs war that raged on amongst our readers. We even had a poll, and the DVD guys won by a narrow margin. 60 to 40, I think it was.

On occasion, of course, we provide more than one Fast Track, but it's not the norm. Luckily for you, we've provided PDFs of all the old Fast Track, until December 2011, in our DVDs this month. That ought to keep you occupied for a lot more than 15 days :)

Robert



✉ First of all, hats-off to the Digit team, you are doing a marvellous job of bringing us the best technology in the world in an easy to understand manner, by implementing various types of research and testing. For this May Edition, I have some positive as well as negative feedback.

Positive :

1. Congrats to your Photoshop designer, the cover page is awesome. (Knew how much effect he/she put for this)
2. Impressed by '100 Top Ultimate Accessory Guide 2012' (Great way to learn about new products)
3. The articles on Crowdsourcing and Insight into Accessories were very Good. (Learning some new things)
4. In Tips & Tricks, a lot of useful tips were given on maximizing one's laptop battery, especially on how to perform an internal fuel gauge.

Now the Negatives :

I am not going to tell anything wrong about your work. I just found, that under the Worldview Section, Page number 52, You have Picked 'Top 3 YouTube Videos', out of which the link to the first one 'Animation in the 70s' is missing. Just a minor mistake, but I am very interested in animation, so I was looking forward to watching it.

Santhosh K Baskar

Whoops! We'll try and guard against committing such blunders in the future. The URL to that video was supposed to be http://dgit.in/JrSCHq. Thank you for appreciating the work we put in the cover story. There are so many cool and wonderfully useful things out there. We just wanted you to get a taste of all that.

Robert

✉ Firstly, congratulations for celebrating your 11th anniversary. The recent developments in your magazine have pleased me. Here are some places where you are possibly the best in India:

1. The kind of language you use in the magazine is so good it gets readers more interested.

2. You present numerous facts along with good visuals.

3. Maintaining a good bond with your readers, understanding their problems and giving solutions increases reader satisfaction.

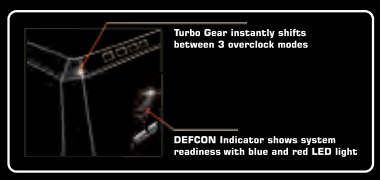
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Graphics	: Integrated Intel® HD Graphics
HDD Storage	: 500GB
Optical Drive	: 24X SuperMulti DVD burner



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Specification:

CPU	: Intel® Core™ i5-2320 Processor
OS	: Genuine Windows® 7 Home Basic
Chipset	: Intel® H61
Memory	: 4GB DDR3
Graphics	: Integrated Intel® HD Graphics
HDD Storage	: 500GB
Optical Drive	: 24X SuperMulti DVD burner



CG8250 (i7)

Specification:

CPU	: Intel® Core™ i7-2600 Processor
OS	: Genuine Windows® 7 Home Premium
Chipset	: Intel® H67
Memory	: 8GB DDR3
Graphics	: GT 545 3GB DDR3
HDD Storage	: 1TB
Optical Drive	: Blu-ray writer



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LETTER OF THE MONTH

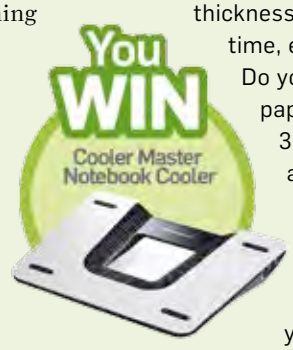
✉ I am a Digit reader since the past one year and I am loving it. I came across Digit in my 8th grade in my school library. I have written two letters earlier enquiring about recruitment but you replied that I was not eligible and I should join a college. I followed your advice and I am pursuing BCA. I have some suggestions:-

1) I would like to see my Digit with less advertisements. At least remove the ads of bikes or food and all, it's a tech magazine not any ordinary weekly publishing magazine.
2) The paper is too glossy. Sometimes it's hard to read in light. Moreover, I think this will help to reduce the production price and maybe you will also reduce the Digit's price.
3) Please try send magazines as early as possible sometimes I receive it after 6-7 days.
4) Can you please organize a workshop in our college?

I hope Digit remains the best tech magazine forever and ever.

Anish Kumar S

We also try our best to remain the best technology magazine forever and ever :)



1) Without advertising, the cost of producing Digit would skyrocket, and we'd have to increase the price. It's why all the other magazines around you also have advertising. Isn't it better to have the ads than pay the same price for a magazine with half as much content? Are they really that much of a bother?
2) Our paper is imported, and we have to factor in a myriad variables when selecting it. For example, the thickness, weight, shine, drying time, effects of weather, etc. Do you prefer the Fast Track paper or Digit paper?
3) If you are a subscriber, and are getting issues late, please inform help@thinkdigit.com, and we will promptly change your courier service. That's what we're here for.
4) We often organise workshops in colleges, and also get a lot of these requests. Write in to us with the name and details of your college. We usually go to college fests where there are more than 2000 students and several college participating.

Robert

4. Having a very high level of transparency. The thing that impressed me was that you even mentioned how each device that you reviewed was tested.

5. A good development in Fast Tracks by various visuals and content part was simple.

Here are some places if you can rectify you can be top in world. They are

1. Many of the software in the DVD are old and repetitive.

2. Also, many of them are trial versions or demos. Why can't we get full versions of those?

3. The new section called devworx has not impressed many of us.

Siva Kumar

Are you talking about the Essentials section? Those are repeated every month for the benefit of first time buyers, or those who only purchase it occasionally – essential to anyone with a PC or laptop. Also, we do provide updated versions of software when they have added new functionality. For example, we have provided Adobe's Creative Suite many times in the past, and are doing so again this month. As is the case with change, we've got a lot of positive and negative feedback about all of the new things we try. We appreciate valuable feedback regarding each of our offerings. We cater to a vast audience with very different tastes. devworx is still evolving and, over the course of time, aims to cater to the app development community. If you have feedback specific to devworx, feel free to write to editor@devworx.in. As I've said in this space before, we can't please everyone all of the time, but we most certainly try and please everyone most of the time.

Robert

✉ I am a Final Year Student in Computer Science Engineering, I have been Reading digit For more than two years now, Whenever our class goes to library then there will always be a row about who took the Digit Book. This is the Book which all kinds of students like. You are Doing a great Job , Keep it up. Now we are planning to develop a magazine to our department and our college, We are Not Sure Which Software to use to Design a magazine. So we need your help in it. Please suggest good software's and provide in DVD if it's an Open Source.

Abinesh B.

We use Adobe InDesign to layout our magazine. This is an expensive software which is a part of the Adobe Creative Suite. But you can try Scribus (www.scribus.net) which is a good open source tool.

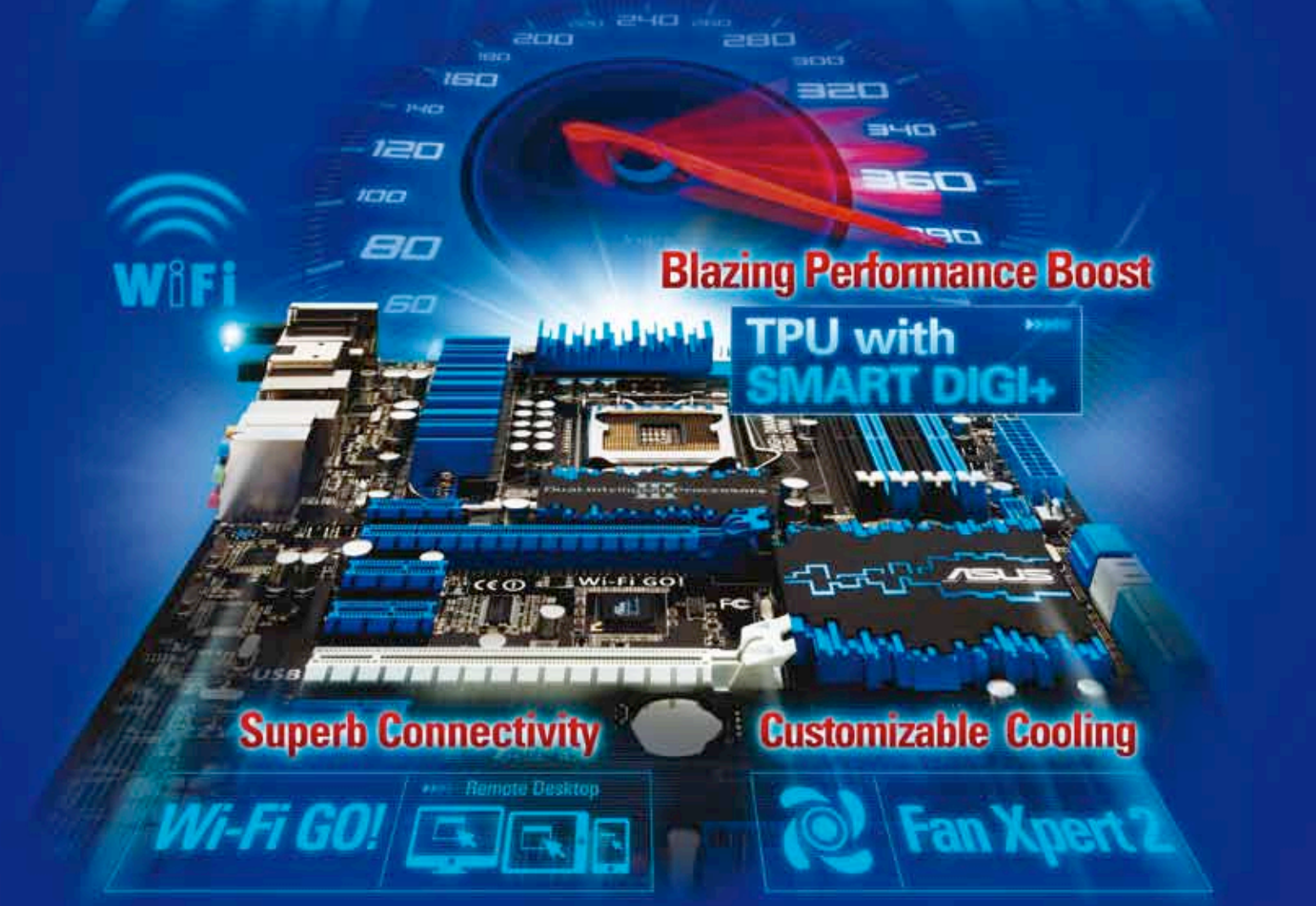
Robert



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JUNE 2012 VOLUME 12 \ ISSUE 06

Contents

QUICK NAVIGATOR

06 ENTER

016 CONNECTIONS

032 DIGITAL LIFE
Droolmaal
On Cloud 9: Cloud services compared

038 SCI TECH
From the Labs: Image Deblurring
Agni V

058 TRIED & TESTED
Ultrabooks
Budget Tablets
Travelzoom cameras

085 TOOLBOX
Tips & Tricks
Q&A

094 TECH@WORK

078 STREET SMART
Agent 001
Price Watch
Killer Rigs

130 ESC



044 **Tech Reborn**
We take a look at how technology has transformed over the years, changing the way we live.

034 **Tech Bottlenecks**
That are holding up the future from happening

TRIED & TESTED



075 SYNOLOGY DS 212J
An affordable NAS for your home



077 ASUS P8Z77-V DELUXE
Asus' monster of a motherboard



079 SAMSUNG GALAXY Y PRO DUOS
Dual Sim Android with a QWERTY keypad



026 **Droolmaal**
Seriously expensive gadgets you simply can't afford

049 **Agni V**
India's foray into the ICBM big leagues

053 **World View**
Cloud Gaming and other articles from around the globe







Tests

106 **Ultrabooks**

112 **Travel zoom cameras**

096 **Budget Tablets**



ON THE DVDs

*nix and FOSS
Ubuntu 12.04
Fedora 16
Puppy Linux 5.3.3
LibreOffice 3.5
Geany
gParted
VirtualBox
Cairo Dock
Drupal
Bluefish

Windows
Burning Studio 2012
WinOptimizer 2012
Undeleter
Office 2010
Internet Accelerator 3
Startup Tuner 2
Magical Defrag 1
Slideshow Studio 2012
CryptBox 2012

Entertainment
Android :
VLC Remote
Evernote
Launcher 7
Pandora
Shazam
ES File Manager
Mac Apps:
Bowtie
Breakaway
Songbird
CCleaner
Mozilla Thunderbird
Sparrow
Prey

Multimedia
Adobe CS 6 Master Suite Trial Version
Fast Track Archives
Ubisoft India Tour video





081 ASUS ROG TYTAN CG8535
Finally a Republic of Gamers Desktop from Asus.



082 NIKON V1
Nikon's top-end offerring in the mirrorless camera segment



New way to pay
MasterCard unveiled a service called PayPass wallet that allows user purchases to be made with a single click or tap **http://dgit.in/Jdb3eB**

Small and fast
Transcend launched MSA720 SATA III SSD weighing just 7 grams and 1/8 the size of a standard 2.5" SSD. Will be available in 64 GB and 128 GB

Microsoft's Garage Science Fair in India

In its third year the fair encourages company employees to innovate in their spare time. This year, it showcased roughly 60 projects, including a few for speech and visually impaired folks. Kinectacles and Kinect Bridge were two such projects. The Kinectacles prototype pointed towards a future in which a Kinect PCB (printed circuit board) and speakers would



The Kinectacles prototype

be integrated into camera-based specs using the platform's 3D motion sensing technology to help guide the visually-impaired.

Kinect Bridge, aimed at the speech and *visually* impaired, would use the Kinect motion sensor to interpret sign language and body gestures, converting them into text or voice. It will be meant for both, Windows and Xbox platforms.



Vu 3D camera launched in India, at ₹19,990

Vu Technologies has launched the Vu 3D camera in India, priced at ₹19,990. It's available at Vu stores across the country. It features dual lens-dual sensor (DLDS) technology (two 16MP sensors), allowing it to capture stereoscopic images. Interestingly, the Vu 3D camera also has a 3.2-inch autostereoscopic LCD display (320x480), not requiring glasses.

Users can connect the Vu 3D camera directly to an HDTV, via its HDMI port. It features 128 MB of built-in storage, which can be expanded by up to 32GB via an SD card slot. This may not be enough considering that these are HD and 3D movies



The VU 3D camera

talking about. Optical zoom in 3D mode is up to 8X, while in 2D mode, it's up to 10X.

The Vu 3D camera features a F3.2 lens with a 5.1mm focal length, and records video in H.264 (avi) format. It can record 720p HD video at 60fps in 3D and 2D, and, full 1080p HD video at 30fps in 2D and 3D. It takes 3D still images in 2M, 5M and 16M (firmware interpolation) sizes, and 2D still images in 2M, 5M, 8M and 16M (firmware interpolation) sizes. You can also enjoy live streaming in 3D and 2D of your favourite videos.

Vu Technologies is one more company that has joined the 3D camera race but it most definitely is the first of its kind in India. We can expect to see a lot more competition in this space very soon considering that conversion of 2D to 3D on a conventional 3D TV doesn't manage to give you a real 3D effect. The Vu camera effectively bridges this gap since it can capture 3D HD videos right at the source so there's no hassle of having to convert to 3D.

Toshiba VL20 3D Smart-TV series launched in India, starting ₹75,990

Toshiba India has launched its first full HD 3D Smart-TV in India, called the Toshiba VL20 LED Power TV, in two screen sizes – 40 inch (₹75,990 - MRP) and 46 inch (₹85,990 - MRP). The Toshiba VL20 LED Power TV features a slim 17mm silver-coloured bezel, and slim swivel stand design. One set of Toshiba 3D glasses are bundled along with the 3DTV.

The 'smart' part of the Toshiba VL20 3D Smart-TV comes from the host of interactive content available on the internet, and on the TV, via TV apps from the Toshiba Places store (featuring Music Place, Video Place, Game Place,



Toshiba VL20 3D Smart TV

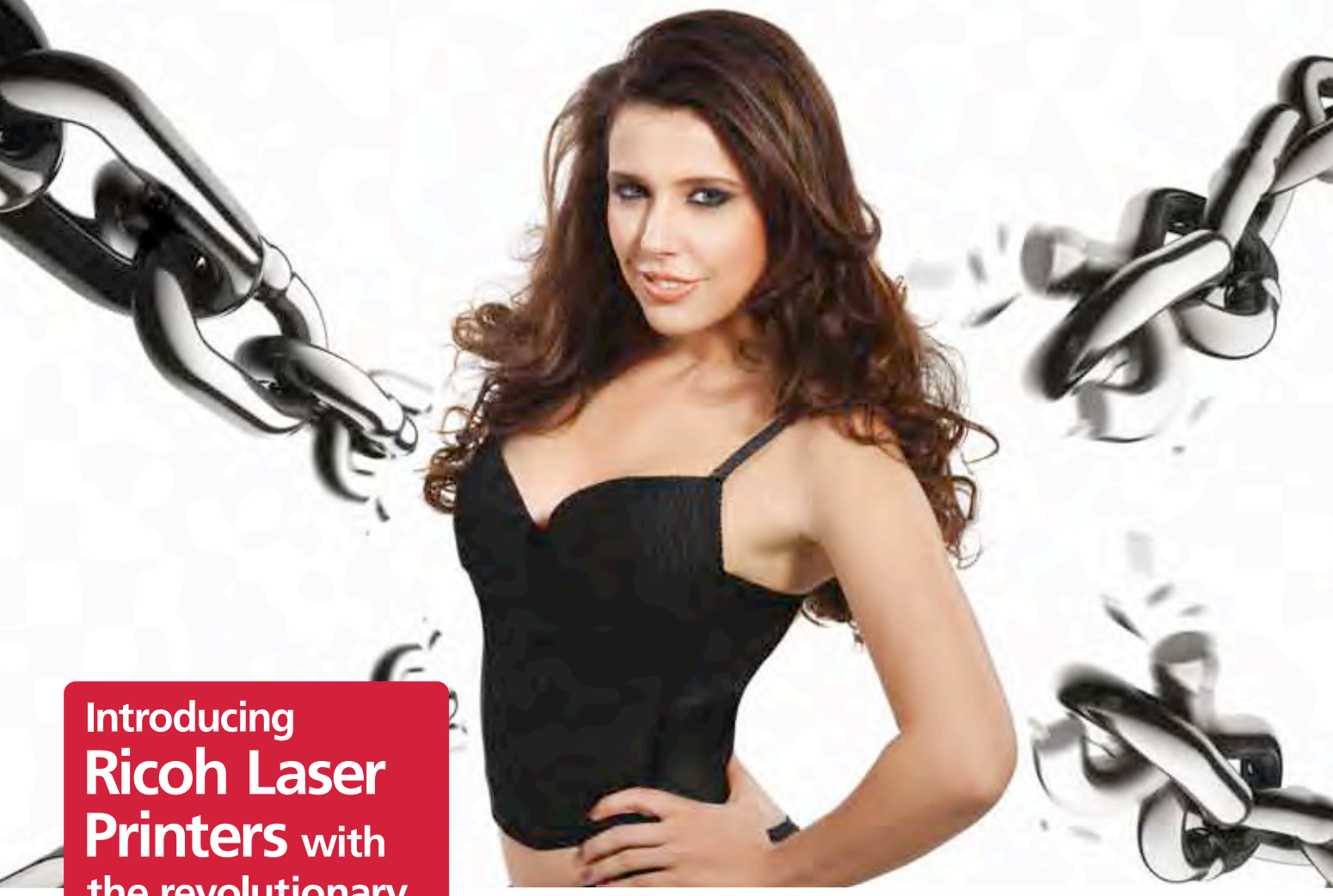
News Place and Social Place). The line-up of 3D Smart-TVs features Dolby Digital, MHL technology, wireless LAN (via USB dongle), DLNA, as well as two USB ports – one HDMI port, a PC port, composite and component ports, and digital audio ports. The Toshiba VL20 3D Smart-TV series is powered by the REGZA engine, and comes with ClearScan 100 Pro, 2D to 3D Conversion, 10-bit video processing power for 10-bit quality of input data, over 1 billion colours thereby, and 3D Color Management, for automatic adjustment of hue, saturation and colour brightness without affecting the other colours, providing more natural looking pictures. Has an Auto Signal Booster, and AutoView features.

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According to a "Trend Micro Q1 2012 Security Roundup" report, India tops the list of spam-sending countries with 20% of worldwide spam



Dust-proof with iOS & Android
Fujifilm Finepix XP170 is a rugged dust-proof camera with wireless transfer function, which works through an iOS & Android app **http://dgit.in/KYyTg8**

Is the Xbox 720 already in production?

Microsoft had clearly announced that it wouldn't be revealing the successor to the Xbox 360 at E3 2012. Yet, IGN has reported that the production for the new Xbox has already begun in Austin, Texas branch of Flextronics. This is the same company that has manufactured the Xbox 360 and the original Xbox for Microsoft.

If these rumours are to be believed, then it's possible that Microsoft is looking at massive availability when the console is finally revealed and launched. It could also be that these initial units are for game development companies. Since development of new hardware is an expensive affair, it's quite likely that Microsoft has entered into early production to fight the rising costs. All these are just speculation, and not confirmed facts.



Durango – the next gen Xbox

Microsoft has issued the following statement to IGN on the matter of the next gen Xbox, "Xbox 360 has found new ways to extend its lifecycle like introducing the world to controller-free experiences with Kinect and re-inventing the console with a new dashboard and new entertainment content partnerships. We are always thinking about what is next for our platform and how to continue to defy the lifecycle convention. Beyond that we do not comment on rumours or speculation."

Codenamed Durango, the next gen Xbox is expected to be six times more powerful than the Xbox 360. There are a variety of speculations as to what will be the power under the hood of the Durango, whether it will have AMD's 7000 series Southern Islands GPU or the Radeon HD 6670, which offers support for DirectX 11. Only time will tell the specifications of the device.

Microsoft is, however, not the only one that wants to take up the first movers advantage. Sony too is gearing up for the next console war. The next iteration of the PlayStation dubbed "Orbis" is expected to be unveiled at E3 2013.

The only company that has shown off its new console is Nintendo with the Wii U, and we expect to see new details such as the power under the hood, pricing and a launch date for the device at E3 2012 that kick offs on June 5th 2012.

BroadCast Asia 2012: A buzz-worthy event

Consider these facts: India has more than 600 television channels, 100 million pay-television households, and produces more than 1,000 films annually. In light of this, one of the biggest events in broadcasting, the 17th International Digital Multimedia and Entertainment Technology Exhibition and Conference is all set to take place at Suntec, Singapore from 19-22 June 2012. At BroadCast Asia 2012, players such as Sony India are all set to showcase their latest and greatest technologies. "We are excited to showcase what we have to offer this year from HD cameras, large sensor camcorders and affordable live production to digital-based technologies for workflow transformation and not to mention our groundbreaking series of OLED monitors," said Ryo Makino, Senior Manager of Content Creation Solutions, Professional Solutions Division, Sony India Pt. Ltd. The event will be home to a global array of the latest technologies and solutions in film, audio and TV with a spotlight on multi-streaming, pro-audio technology, and over the top (OTT) technology. Stay tuned for more...



Galaxy Nexus not coming to India, confirms Samsung

If you've been waiting long for the Galaxy Nexus smartphone, we've got bad news. Samsung has confirmed that it won't be launching the Galaxy Nexus in India. Samsung India announced this news on its Twitter account. It said that it would rather come up with a "big thing" – the Galaxy S III, due in June.

The Galaxy Nexus was launched in October 2011, and was the first device to come with the latest Android 4.0 operating system, Ice Cream Sandwich. Since then, the Samsung Galaxy Nexus has launched in various markets such as the U.S., the U.K., Singapore, Japan and Korea.



The Galaxy Nexus

This isn't the first time a Nexus device hasn't been launched in India. The first Nexus device, Nexus One, was also not released in India. The second Nexus device, Nexus S, that was released in the country was launched months after its global release.

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Google updates search with its new Knowledge Graph

Google's dominant search engine is set for another major revamp, as the Internet Giant introduces "Knowledge Graph" – that will provide users with more relevant results. The Knowledge Graph will appear in the form of short snippets to the right column of its results and provide users more information on the searched topic and help users explore related items as well. The feature is rolled out to desktops, mobiles and tablets.

Google's Knowledge Graph leverages a Google-built database of over 500 million people, places and commonly sought queries to provide brief information about the searched for topic alongside the main search results.



More info will appear on the right of results

"The Knowledge Graph enables you to search for things, people or places that Google knows about – landmarks, celebrities, cities, sports teams, buildings, geographical features, movies, celestial objects, works of art and more – and instantly get information that's relevant to your query," Amit Singhal, senior vice president of engineering at Google, said in a blog post. "This is a critical first step toward building the next generation of search, which taps into the collective intelligence of the Web and understands the world a bit more like people do."



The Knowledge Graph gives you recommendations based on your search terms

The party's over for Facebook and LinkedIn

A new report from research firm Gartner suggests that privacy concerns and cultural fabric could dent social media growth in the country, as compared to other nations.

"India is poised to become one of the world's biggest consumer economies in the coming five years. By 2014, it is expected to have more than one billion mobile subscribers," said Gartner Research VP Rakesh Kumar. He, however, added that the growth of social media could slow down in the next five years and may be at lower levels in India as compared to other nations.

Kumar points out that companies, especially in sectors such as FMCG, consumer durables, auto and telecom are taking help of social media to communicate with consumers to get feedback. "This will lead to a further engagement of brands with customers and helps the economy as well," he said.

Gartner received a total of 303 votes, of which 112 repondents cast in favour of the option - "Well, we've reached a saturation point". This indicates a lot of people believe social media sites have hit their peak in the country.

bharti airtel launches 4G services in Bengaluru

Almost a month after it launched its 4G wireless broadband services in Kolkata, telecom giant bharti airtel launched 4G services in Bengaluru. airtel has also come up with a "smartbytes" plan, which features add-on packs that allow customers to avail of 4G services even after exhaustion of the monthly data limits. airtel's 4G network in Bengaluru was inaugurated by Karnataka CM D. V. Sadananda Gowda.

As part of an introductory offer by airtel, customers subscribing to 4G services will now be given a cashback for the CPE / dongle– thus bringing the device cost to customers to zero. airtel believes the offer will help pave way for mass adoption of 4G services. Plans start at ₹999.

In April, bharti airtel launched its fourth generation mobile services in Kolkata, becoming the first telecom operator to do so. airtel owns a 4G license for Kolkata, Karnataka, Punjab and Maharashtra (excluding Mumbai) circles. According to reports, Huawei will assist airtel plan, design, supply and deploy TD LTE in Bangalore. airtel had a similar deal with ZTE in Kolkata.

Security watch

Google AdWords comes under CCI scanner. Anonymous is at it again. And what has Facebook done now?

Qualcomm's 4G dramas

The Department of Telecom (DoT) has decided to allocate 4G broadband spectrum to U.S.-based chipmaker Qualcomm, almost two years after the company won the radio waves through an auction.

According to reports, the DoT has cut the validity of the spectrum, allocated to Qualcomm, by 18 months and now the company will have the right to use this spectrum for 18.5 years only. Normally, radio airwaves are granted for a period of twenty years. The period has been reduced due to delays on the part of Qualcomm, says a DoT official.

It may be recalled that the DoT had turned down Qualcomm's application for an Internet Service Provider (ISP) licence due to late submission. Qualcomm later moved telecom tribunal TDSAT, which directed the DoT to grant licence and allocate spectrum to the company. The U.S. chipmaker had won spectrum for high-speed data services in four circles – Delhi, Mumbai, Haryana and Kerala – through auction in June 2010, and paid $1 billion for the same.

Two heads are better

Bing's revamped search engine introduces more "personalised search results" using data from social networks. A new sidebar will allow friends on social networks to guide on a search. Bing is also getting an instant snapshot column, which features extra information and links to useful content such as maps, reviews and reservation tools.

The "new Bing" is in testing stages, and can be found at www.bing.com/new. It has three sections: the leftmost pane carries the main search results, the middle pane known as "Snapshot" has links to useful content turning a search result into directions, the right most pane has been integrated with social media.

The right sidebar has "ask friends" to seek advice from friends on social networks, "friends who might know" to link search with interests of known friends, and "people who know" to display results from social networks. The side bar also has an activity feed, letting users interact with their social networks without leaving the Bing page.



Bing's "friendly" experiment





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- 2 PCI
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- 2 SATA 3Gb/s (RAID 0,1)
- 6 USB 3.0 / 6 USB 2.0



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- 1 PCIe Gen2 x 1
- 2 PCI
- 2 Dual-channel DDR3 1600 / 1333 / 1066
- 2 SATA 6Gb/s (RAID 0,1,5,10)
- 4 SATA 3Gb/s
- 4 USB 3.0 / 10 USB 2.0



H61H2-M2

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- 8 USB 2.0

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iOS 5.1 gets untethered jailbreak
iOS security researcher pod2g tweeted today that his iPhone 4 running iOS 5.1 is now running untethered; a redsn0w update might follow **http://dgit.in/INheLo**

Trip in a pocket
A useful app that helps customers get itinerary updates directly from their travel agents. Give it a try **http://dgit.in/JaKNkF**

MapmyIndia Telenav app: iWay on the iHighway

This navigation app takes the iPhone one step closer to a full-fledged GPS device

Vishal Mathur
vishal.mathur@thinkdigit.com

If you need navigation guidance on your iPhone thanks to a general lack of directional sense, or simply want to visit new places, this app is handy.

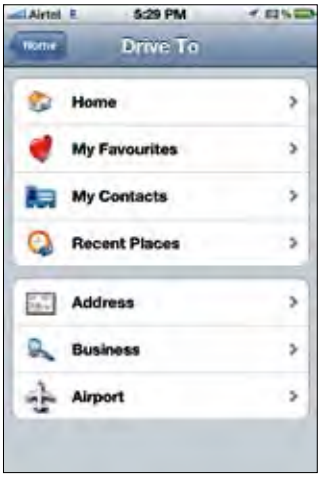
Interface: The interface is clean and easy to understand. Navigation wise, you have the same feature set as GPS devices – search for the place you want to go or use the POI list to select a destination. This app also has address search capabilities. On the home screen are the options for Drive To, Search, Maps and Tools & Extras. Drive To is the option to select when you need to head to a destination that you may have already set as a Favorite. Search the pre-listed business houses – hotels, health services etc. or enter an address to start navigation. A very thoughtful addition is the prelisted entries for the airport!



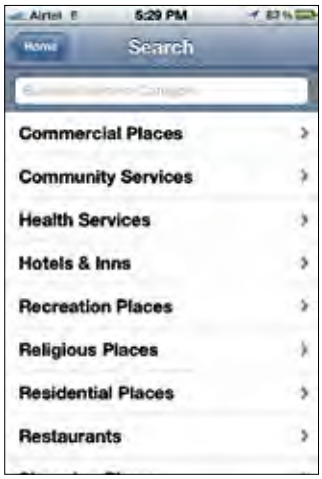
What an error message will look like



Home screen options



Select "Drive To" to head to any of many possible destinations



Search pre-listed businesses



Prelisted entries for airports

Additionally, there's a shake-to-go address – set this address, open the app, shake the phone steadily a couple of times and the navigation starts. You can also manage music playback in the midst of navigation.

Maps: Though you have the option to switch between 2D and 3D maps, you only get the bare minimum – there's a focus on the roads, with very minimal landmarks, buildings etc. marked. The idea is to keep the map as light as possible, for usage on 2G and 3G networks, while giving you a rough idea of the topography. On a 2G network, it took anywhere between 5 and 10 seconds for the map to load, with the phone's GPS already turned on. The fact that it focuses primarily on the roads makes it very helpful when you need to get your eyes back on the road very quickly.

As far as guidance capabilities are concerned, it lacks nothing that a standalone GPS device would have, including a stern voice to guide you!

The map layout and colour theme make it very clear to see which road you're taking, and where you need to go next. For the most part, even slight curves on the road are well marked. However, because it has literally no buildings or landmarks on the map, you won't have any prior idea if the destination is approaching, by just identifying the landmarks. Rerouting is also quite quick – usually takes around 4-5 seconds for plotting.

Navigation: You can't tweak this too much – there's only one option available, and that's English.

Battery: For a 25km distance, the iPhone used 20% charge on an average. But it did become considerably warm, possibly because the app is keeping the GPS in constant connection, even when minimised.

Pricing: This app can be downloaded for free, but subscription options are available on a monthly and an annual basis – $3.99 per month and/or $29.99 per annum. But technically, this is only for voice navigation. Users can continue using MapmyIndia beyond the subscription period for navigation, but without voice guidance.

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ARM reaches 3.1GHz speed
TSMC has created a 28nm ARM-based chip capable of reaching speeds of up to 3.1Ghz. The chip is a dual-core Cortex A9 variant **http://dgit.in/Isn67f**

No more puncture
This bike has self-inflating tubes that help control a bike's tire pressure while riding **http://dgit.in/IKVFcE**

Music Central

Enjoy a wide variety of music, without having to download it

Vishal Mathur
vishal.mathur@thinkdigit.com

For all the music buffs out there, keeping a wide variety of music on your portable device isn't always possible –the storage space may have been exhausted, you may have been too lazy to download the latest songs or are in the mood to try some different genre. This is where having a good music streaming app makes a lot of sense. We talk about a bunch of multi-platform apps that you can download.

Essentially, these apps will utilize a data connection – EDGE, 3G or Wi-Fi – to essentially download chunks of the audio in one go, and play them back on the device. What you need to keep an eye on is the data usage, more so if it's 3G connectivity that you're using.



Full points for organization



Searching for music on Live365


Dhingana – a Bollywood fanboy

TuneIN Radio

Basic version - Free
Pro version - $0.99
Platforms: iOS, Android, BlackBerry, Windows Phone, Bada and Palm

TuneIN Radio is possibly the neatest streaming app out there, with more than 40,000 local radio stations. Available for almost all platforms out there, TuneIN Radio's clean division across genre and categories, with sub-categories, helps make search easier. You can set stations as Favorites, which helps since the separate Favorites tab takes you straight to the marked stations the moment you open the app.

Live365

Free
Platforms: iOS and Android. Apps for older BlackBerry and Windows Mobile 6 smartphones

Live365 has a visually appealing interface, with an image accompanying every single genre category, and there are quite a few of them, if you consider the sub-categories as well. A wide range of stations are available. The app also offers recommendations, but we doubt those are based on your recent listening habits.

Dhingana

Free
Platforms: iOS, Android and BlackBerry

This is the ideal app if you prefer Hindi music, primarily Bollywood soundtracks. All the latest soundtracks make their way to the app quite quickly. Dhingana is available only for iOS, Android and BlackBerry currently. A neat interface means you can search for whatever you want quite quickly.

Rovio's Formula 1-themed 'Angry Birds Heikki'

These birds seem to be watching Formula 1, it seems! Quite evidently, since the next version of *Angry Birds* will get inspiration from F1, and particularly Heikki Kovalainen. Heikki is currently employed with the Caterham Formula 1 team, and is a part of the current Formula 1 season also. Called *Angry Birds Heikki*, the game is expected to arrive on app stores around June 18.



Not many details are available as yet, except that it will be a web-based game. As part of a deal with Rovio, Heikki Kovalainen is these days seen sporting a co-branded Angry Birds helmet. "It's the first time that I've partnered with a gaming company, and it fits with my larger focus on partnering with unique brands," Kovalainen said in a statement. "As a Finn, I'm also happy to be backing a Finnish company on a global platform. Most importantly, I'm a big Angry Birds fan!"

Head over to http://heikki.angrybirds.com/ for a preview.

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Cells beat computers
Facebook users spend more time on its mobile site than its computer site
http://dgit.in/IUNx53

Samsung unveils Galaxy S III and Omnia M

Samsung has finally unveiled its latest flagship mobile, the Samsung Galaxy S III, due to hit India in June 2012. The quad-core S III will ship with Android 4.0.4 Ice Cream Sandwich onboard, along with Samsung's TouchWiz 4.0 UI. For now, no pricing information is available, though numerous reports speculate a price of ₹38,000.

The Samsung I9300 Galaxy S III features the Korean giant's new 32nm 1.4GHz quad-core ARM Cortex A9 processor on the Exynos 4412 (Exynos 4 Quad) chipset with 1 GB of RAM, and surprisingly, the old Mali-400MP GPU that's presumably overclocked. The 8.6mm-thick Samsung Galaxy S III packs a 4.8-inch HD Super AMOLED Gorilla Glass display, with a 1280x720 pixels resolution and a 16-million colour gamut.



Samsung Galaxy S III

The S III features an 8MP rear auto-focus camera with touch focus, geo-tagging, image stabilization, face and smile detection, 1080p HD video recording at 30 fps, a burst-mode of 6fps for up to 20 images and an LED flash. To round off the optics, it comes with a 1.9MP front-facing camera, capable of 720p HD video recording. Unfortunately, there's no dedicated camera button on the device.

A 2,100mAh battery powers it all. The Samsung Galaxy S III will ship with a choice of 16GB/32GB/64GB built-in storage capacities, and microSD card support up to 64GB. It will also come with two years of 50GB Dropbox cloud storage.

In terms of connectivity, the Galaxy S III features HSPA+ (HSDPA 21 Mbps, HSUPA 5.76 Mbps); Bluetooth 4.0 HS with A2DP and EDR; Wi-Fi 802.11 a/b/g/n with DLNA, Wi-Fi direct and hotspot functionality; microUSB v2.0 via MHL (TV-out) along with USB-on-the-go support; GPS with A-GPS support; stereo FM radio with RDS; 3.5mm audio jack; microSIM card support; and Near Field Communications (NFC) technology, which also enables S Beam, image and video sharing between Galaxy S III devices at up to 300Mbps via Wi-Fi direct. A U.S. bound LTE version will also ship sometime in June.

Samsung is also proudly showing off the Galaxy S III's S-Voice natural language commands and dictation features – the company's answer to Apple's Siri. For more details, refer to our online coverage, at http://dgit.in/JkxqUj

Samsung has also expanded its Windows Phone portfolio by unveiling the Samsung Omnia M, which will ship with Windows Phone 7.5 Mango. No word on pricing or availability with this one either though some sources say that the entry-level smartphone could cost ₹11,000.



The Omnia M

The Omnia M doesn't have a physical Windows home button, and will rely on the touch sensitive option. It features a 4.0-inch Super AMOLED capacitive touch display with 480x800 resolution, 1GHz processor, 5MP auto-focus camera with LED flash and a VGA video calling camera.

It has 384 MB of RAM along with 4 GB of built-in storage (its previous phone, Omnia 7 has two better memory options: 8 GB and 16 GB and it also has microSD slots for additional memory like the Omnia M).

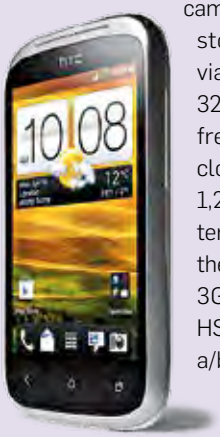
It also features ChatOn messenger, and 25 GB of Windows Live SkyDrive cloud storage. In addition there's the Samsung Allshare that allows users to play films, games or any other media directly on a TV.

Its reasonable pricing make it an attractive option if you've been looking to try out the Windows Phone platform.

HTC Desire C unveiled, budget ICS with 5MP camera

HTC has announced a new budget Android Ice Cream Sandwich phone, HTC Desire C, which also features Beats Audio. It's scheduled to release by the end of May, starting with Europe. So far, only European pricing has been leaked, at around €220, translating to roughly ₹15,000.

Bearing a 3.5-inch (320x480) capacitive touchscreen, the HTC Desire C is 12mm-thick. It features a Snapdragon S1 600MHz processor, with 512MB RAM, Sense 4.0 UI on top of Ice Cream Sandwich, as well as Beats Audio technology without headphones.

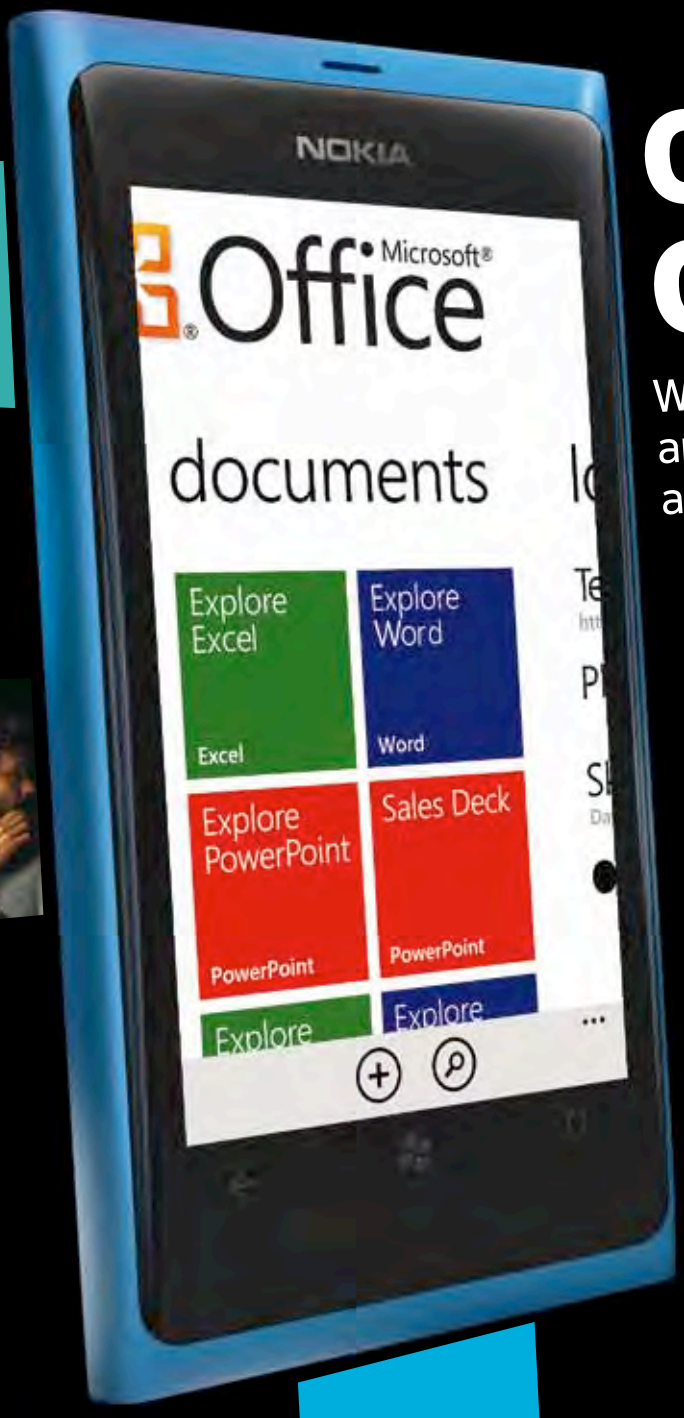


HTC Desire C

Other features of the HTC Desire C include a 5MP F/2.8 rear camera, 4GB of built-in storage expandable via microSD (up to 32 GB), two years of free Dropbox 25GB cloud storage, and a 1,230 mAh battery. In terms of connectivity, the Desire C features 3G with 7.2Mbps HSDPA, Wi-Fi 802.11 a/b/g/n with hotspot, Bluetooth 4.0 with A2DP and USB 2.0.

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3D projector from BenQ
BenQ has launched W7000, a full HD 3D projector compatible with latest HDMI enabling 3D playback from PS3, cable/ DTH and Blu-Ray players

Blessing for gadgets
Church congregants are increasingly using tablets and apps to follow prayers and teachings **http://dgit.in/K8szFw**

TRAI to improve service quality for 3G voice calls

The Telecom Regulatory Authority of India (TRAI) has announced measures to improve the quality of 3G mobile services in the country. The regulatory body, in its Standards of Quality of Service of Cellular Mobile Telephone Service (Amendment) Regulations, 2012, specifies the quality of service standards for the 3G/UMTS networks covering voice calls.

The body further states that the new regulations have amended the current quality of service parameters for cellular mobile telephone service relating to network quality, prescribed through the Standards of Quality of Services of Basic Telephone Service (wireline) and Cellular Mobile Telephone Service Regulations, 2009, dated March 20th, 2009.

In its official statement, the TRAI says that after reviewing the requirements of the Quality of Services of the 3G networks, it has decided as far as the voice services by 3G networks were concerned, the current network related parameters were sufficient, except that the nomenclature for some of the terms used in the existing regulations and the measurement methodologies would be different. TRAI has, accordingly, issued the amendments to the regulations.

In other news, TRAI is now taking on broadcasters. It recommends that they reduce advertising time on pay channels and keep it no more than six minutes per hour. Expect subscriptions fees to shoot up.

Indians are more active smartphone users than Americans

Indians outshine Americans when it comes to accessing the internet through smartphones. According to a survey conducted by Google in partnership with research firm Ipsos, Indian smartphone users are more active online than their US counterparts.

The survey says that 56 per cent of Indian smartphone users access the internet on their phones as compared to 53 per cent in the U.S. The survey, however, points out that India has less than 50 per cent of the 245 million smartphone users in U.S.

The survey also highlights the rising popularity of social networking sites in the country. It says that more than 75 percent of the Indian smartphone users access social networking sites, as compared to 54 percent in the U.S. Around 81 percent Indians access e-mails through their smartphones, while only 73 percent Americans do the same.

The survey also reveals the pattern of smartphone usages among men and women in India. Of the 56 per cent usage of internet through smartphones in India, 59 per cent are males and 48 per cent females. The survey further says that a majority 77 percent Indian smartphone users use their device to listen to music, while 33 percent users play video games. Clearly you can see where cellphones are headed.

3G-capable BlackBerry Curve 9320 announced, to arrive in June

RIM has announced a new BlackBerry phone – the Curve 9320, an entry-level device with 3G capabilities and BlackBerry OS 7.1, which according to the latest reports, is expected to arrive in India sometime in June. Pricing is as of yet unknown, but is expected to be anywhere between ₹12,000 and ₹14,000.

The BlackBerry Curve 9320, first spotted in early March, is essentially the 3G-variant (7.2Mbps down, 5.76Mbps up) of the recently launched Curve 9220. It shares most of its predecessor's features, apart from a larger 3.15MP camera (compared to the 9220's 2MP offering), with flash and image stabilization, as well as the GPS connectivity sorely lacking in the 9220.

Common specifications include a 2.44-inch 320x240 pixel display, 512 MB of RAM, Wi-Fi 802.11 b/g/n connectivity, stereo FM radio, 512 MB of ROM, microSD card slot support of up to 32 GB, and a 1450mAh battery, which is said to be able to deliver up to 7 hours of talk-time and 30 hours of continuous FM radio playback.



BlackBerry Curve 9320

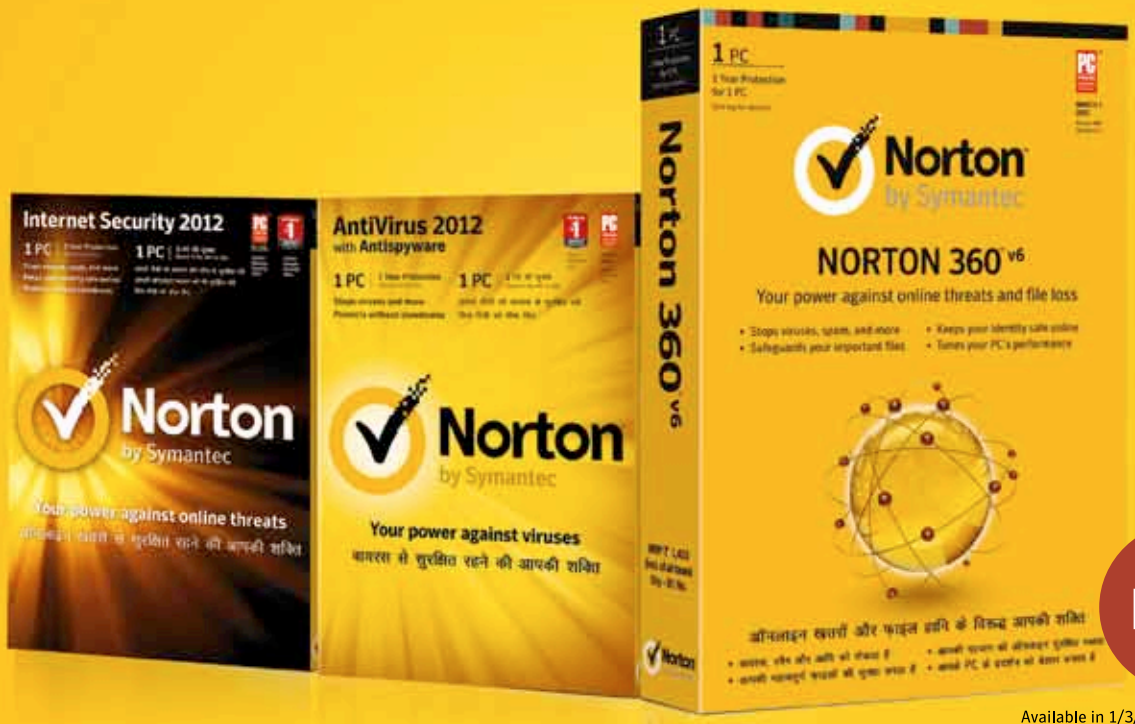
The Curve 9320 should also arrive in the same range of colours as the 9220 – Black, Blue, Fuchsia Pink, Pure White and Teal Blue.

Of course, like the Curve 9220, the Curve 9320 will come with the new dedicated BBM button, for one-click access to the platform's many integrated features.Parental Controls is a brand new, on-device feature to help protect children by restricting access to certain features.

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This Pinterest-esque app introduces a working social e-commerce model and fuses the act of discovery, self expression and curation **http://dgit.in/JL4azQ**

Apple's worth
Want to know how big and rich Apple Inc. is? Check out the following video **http://dgit.in/Jb2LJp**

India fifth among cybercrime affected nations

Cyber crimes are on the rise in India. In fact, India ranks fifth among countries most affected by rising cyber crime, reveals a survey conducted by Security and Defence Agenda (SDA) and McAfee.

The report, 'Cyber Security: The Vexed Question of Global Rules', which sheds light on India's current IT security scenario, says the biggest challenge for the country is to train and equip the law enforcement agencies including the judiciary, especially outside the metro cities. The report further points out the premium on Internet privacy in the country is low.

"India is acutely aware that cyber crime is based for its reputation as a country where foreign investors can do business and has been investing heavily in cyber -security," says the report, stressing the need for a centralised management to control internet, telecom and power sectors.

The report, however, lauds the government for gaining valuable experience in dealing with compliance regulations from around the world with the IT Amendments Act of 2008. The new report on the status of the Internet security in India comes days after Home Minister P Chidambaram said the government was planning to set up a National Threat Intelligence Centre in view of rising cyber crimes such as identity theft, hacking, financial fraud, child pornography and corporate espionage.

Earlier, Minister of State for Communications and IT, Sachin Pilot had revealed as many as 133 Indian government websites were defaced by hackers in the first three months of 2012.

Google AdWords comes under CCI scanner

The competition watchdog of India, CCI, has ordered investigation against Google's online advertising business, AdWords, after the authority found "prima facie evidence" that the search giant abused its market position by being discriminatory in allocating keywords. According to reports, the Competition Commission of India will primarily focus on Google's AdWords services; however Google's other services may come under scanner as well.

"We have asked the Director General (Investigations) to complete the probe and give a report on it within 60 days. Prima facie, we found evidence that suggests that Google did abuse its dominant market position," a senior official tells PTI.

It's learnt that matrimonial site BharatMatrimony had sued Google, accusing the latter of engaging in discriminatory and retaliatory practices relating to AdWords. BharatMatrimony sought CCI's interference in the matter.

Anonymous targets Indian websites

Anonymous has claimed responsibility for cyber-attacks on a host of Indian government websites, in retaliation to the country's web censorship plans, which most recently blocked websites such as DailyMotion, Pastebin, Vimeo and the The Pirate Bay.

Announcing the attacks, Anon_Central tweeted: "Namaste #India, your time has come to trash the current government and install a new one. Good luck."

Indian government websites that have been attacked include the All India Congress Committee, Indian Supreme Court, Copyrightlabs.in, Department of Telecommunications, Ministry of Information Technology, and the Jammu & Kashmir Police. India's web censorship row started last year, and has since attracted global attention, and forced over 21 internet companies to remove 'objectionable' content from their websites. For more details about the latest in the web censorship row, refer to our previous, comprehensive coverage.

OpIndia_Revenge, a member of Anonymous, tweeted to urge users to defy the Indian government, using VPNs to access torrent sites. "Tell them they cannot stop you." At the time of writing, more DDOS attacks are supposedly planned, with OpIndia_Revenge tweeting: *#India it[']s a DDOS attack. We do not assure for how long we can keep down sites. But we are firing at them. They will face lags.*

Government to set up National Threat Intelligence Centre

The Indian government is planning to set up a National Threat Intelligence Centre in view of rising cyber crimes such as identity theft, hacking, financial fraud, child pornography and corporate espionage. While launching a report on cyber security prepared by software industry body Nasscom, Home Minister P Chidambaram said that the government needs to fortify its capacity to deal with online security threats/crimes.

"We have taken numerous steps to protect the physical infrastructure...I think all that we have done to protect the infrastructure in the physical space seems to be a lighter task than when we face threats that have been outlined in the cyber space," Chidambaram said, acknowledging the online crimes were on the rise in the country.

Chidambaram also stressed that the government needed to set up lawful interception capabilities. Nasscom's report Securing Our Cyber Frontiers' also calls for similar infrastructure to deal with online crime.

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A land of Angry Birds
Sarkanniemi Amusement Park in Tampere, Finland is now a first official theme park based on the world's most downloaded game **http://dgit.in/MmMz5p**

Vibrating tattoo
Nokia has allegedly applied for a patent for tattoos that can alert you when you're getting calls **http://dgit.in/J0mANS**

Six tips for protecting your email privacy

Sending an email message is certainly more private than posting on a social networking site, but email has its own dangers. Here are six tips to help you communicate without risking your privacy.

1 Use a Strong Password

You give out your email address all the time; it's not really private information. That being the case, the only thing protecting your account from misuse is the password. A malefactor who guesses your too-weak password gains full control of your email account. Protect your account with a strong password, especially if you use a Web-based email provider like Gmail or Yahoo mail.

2 Beware Public PCs

If you check your email on a public computer in a library or Internet café, be absolutely sure you've logged out before leaving. Even then, you might be leaving behind traces that could give the next user too much information about you.

3 Protect Your Address

It's true that you give out your email address every time you send a message, but there's no need to give it to the whole world. Don't include your email address in comments on blog posts, or in social media posts. Spammers and scammers scrape pages all the time looking for new victims.

4 Lock It Up

If you step away from your desk, lock the Windows desktop or close your email client. Otherwise a sneaky co-worker could read your mail or even reset your login password. Hold the Windows key and press L to lock the desktop instantly.

5 Don't Be Fooled

Oh, dear. Your email provider has sent you notification of a security breach, with a link to reset your password. Don't click that link! It's almost certainly a fraud, designed to steal your email account password. If you have any doubts, navigate to the email provider's site directly and double-check.

6 Use Encryption

Sometimes you just have to send sensitive information by email. To keep your data safe, save it as a document and use your word processing application's built-in encryption, or store the document in an encrypted ZIP file. Then share the password with the recipient separately. If you need encryption frequently, try a free email encryption product like PrivateSky or Enlocked.

Twitter joins Do Not Track initiative, updates privacy policy

Twitter has announced it has joined the FTC's Do Not Track (DNT) initiative, better helping users ensure their data will not be shared with third parties, once they enable DNT on their browsers.



Do Not Track so far hasn't had too many major backers, so Twitter's presence should serve as a boost in credibility of the initiative, according to FTC chairman, Jon Leibowitz. Mozilla also commented on Twitter's decision, saying it was "excited that Twitter now supports Do Not Track and global user adoption rates continue to increase, which signifies a big step forward for Do Not Track and the Web."

Changes have been made to Twitter's Terms of Service and Privacy Policy. Twitter has also created a page in its 'help center' for Do No Track, explain to users just what it means for them, its consequences, and just how to use it.

Facebook unlikely to open to under-13s



Facebook has rejected recent reports alleging that the social networking site was planning to change its rules, and allow under-13s to be members. In an interview with the Sunday Times, Facebook's head of policy in Britain, Simon Milner, acknowledged that "There is reputable evidence that there are kids under 13 who are lying about their age to get on to Facebook".

Facebook, however, has outrightly denied the claims. A Facebook spokesperson told the Telegraph, "All we have said is what we have been saying for months – that minors on Facebook and the internet is an important issue – and we want to work with the broader industry to look at ways of keeping minors safe."

The decision to lift the ban, if executed, the number of Facebook users could have shot up drastically. Facebook currently is estimated to have 900 million active users and is expected to surpass the iconic one billion mark very soon.

Facebook's policy of not allowing underage users to join the social networking has been considered as an effort to protect kids from online threats. There are already numerous reports on escalating cases of cyber bullying. Facebook, however, has incorporated a number security features to combat the online threats. The social networking last year brought in a new tool that allowed users to help friends, who have expressed suicidal thoughts on the social networking site.

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2078-771121-A00

London Olympics' cyber attack
A British politician sounded the warning bell on cyber-attacks during the Summer Olympics, claiming that "the threat is accelerating" **http://dgit.in/KvgTr4**

Apple surpasses IBM
Reaches #17 from #35 in Fortune 500 list in terms of 2011 revenues, #3 in terms of profit **http://dgit.in/KCr2bO**

ZERO1 AWARD WINNERS

We continue looking back at some of the best performing products of 2011 and acknowledging their excellence. We visited Kingston, Olympus and WD and managed to present them with the Zero 1 Award trophy at their respective offices

Best SSD



Vishal Parekh accepts the Zero 1 Award. He's Kingston's Marketing Director, India

KINGSTON HYPERX 240GB SSD



"Blazing fast" are the only words that come to mind when you talk about this high-capacity SSD. The drive offered real-life read / write speeds of 263 / 203 MBps, respectively. This was one was for the speed junkies among all of us.

Best Point-and-shoot Camera

OLYMPUS XZ-1



Back in 2011, for a point-and-shooter, the Olympus XZ-1 was almost in the same league as the larger and more expensive micro 4/3rd cameras. The reason behind that was a killer combo of a larger sensor and faster F1.8 iZuiko lens. This resulted in super-sharp images from the Olympus XZ-1 with lots of details and punchy colours.



(L) Sudipto Chakroborty - AGM - Service; (R) Nobuaki Tanaka - Senior manager - Service

Best Internal Hard Drive



WD's Rishi Prasad, Channel Marketing Manager, Indian Subcontinent

WESTERN DIGITAL VELOCIRAPTOR 600 GB



When it came to pure performance, the Western Digital Velociraptor 600 GB internal hard drive, which came with a 6 Gbps SATA interface and 32 MB of cache, won hands down thanks to its massive 10,000 RPM spindle speed. With read speeds crossing 150 MB/s and write speeds hovering around the 148 MB/s mark, the Velociraptor had little competition. It's the drive to buy if you can't afford an SSD.

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34

Storage just got wings!
We identify popular cloud storage services that makes most sense for you, including Dropbox and Google Drive



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Now a camera which can describe the picture you click with it by uploading it on web **http://dgit.in/JppPzW**



i'm Watch

This one's for the uber geeks. You must remember a custom-made iPod watch featured in this very section many months ago, a brilliant piece of engineering and elegance. Well, one Italian manufacturer has surpassed that project by launching its own i'm Watch -- a smart watch that runs on Android and tethers to any smartphone, including a Blackberry and iPhone. The beautiful device can deal with phone calls, text messages, it even lets you browse through your music and photo album. Starting price: ₹18,000 and goes all the way up to a staggering 7 lakh rupees!

Innovative, aesthetic gadgets worth buying

Wrist mounted finger piano

Don't hope to match Beethoven or Mozart, but with this innovative device, you can at least play the piano and get away with it. Strapped on to your wrist is a central dial with wires extending to clip on every finger -- the assembly looks eerily similar to a pulse monitor. However, the cool little device from Japan lets you play a unique note on every finger and three on the wrist, with full octave range. For just over ₹2,000, you can have this battery-powered, portable piano at your disposal all the time.



A budget Macbook Air
Apple is set to launch a budget-priced Macbook Air at around $799 later this year **http://dgit.in/LDGAvb**



Xbox recommended to stay out of U.S.
Citing infringement of Motorola patents by Microsoft, ITC judge recommends that the 4GB and 250GB versions of the Xbox 360 S console be blocked from import **http://dgit.in/JoUyxa**

Focal Grande Utopia EM Speakers

Imagine a chic designer set of speakers that are custom made to fit your room's interior perfectly? That's what the Focal Grande Utopia EM Speakers are all about. You can order them in the colour you want -- not limited to a catalogue, but any unique colour you demand. Essential specs of these bad boys: They're over 6 feet tall, can withstand 15,000 watts per channel amps, and they're also regarded as one of the best speaker sets in the world. They are yours for just over a crore!





Fujifilm's Globetrotter

A British luggage manufacturer, Globetrotter, and Fujifilm have gone all out to impress the fashionistas among us. Their latest collaboration is a fancy suitcase with an assortment of Fujifilm goodies inside -- a vulcanized fiberboard case with Fujifilm's X-Pro1 camera nestled inside with a variety of lenses and accessories. It's a limited edition suitcase, with apparently only 12 pieces on sale at Harrod's technological department. If you want it, you can get it for ₹5 lakh, approximately.

Nikkor 6mm f/2.8 lens

In 1972, Nikon created a fisheye lens so ridiculously big that it could literally look behind itself! So why are we talking about the Nikkor 6mm f/2.8 lens only now, we hear you ask? Because it recently went up for sale at ₹89 lakhs!! That's right, this unique and rare piece of optical wizardry is now available at Grays of Westminster, a specialty camera shop in London. The exceptional fisheye lens weighs 5200 grams, has 12 glass elements, measuring 236 mm by 171 mm long, and can capture a mind boggling 220 degree picture. Anyone interested?





Facebook IPO to raise $13.6bn
Facebook set its IPO pricing details; the company is aiming to price its shares between $28 and $35, valuing the company at roughly $88bn **http://dgit.in/JXVnQI**

Cure all tumors
New research has pointed out that a new drug called CD47 could cure all types of cancer **http://dgit.in/JJHH6p**

STORAGE JUST GOT WINGS!

We identify the cloud storage service that makes most sense for you

Vishal Mathur
readersletters@thinkdigit.com

The very fact that cloud storage has been around for so long, without any major horror stories about data disappearing, makes the shift to the cloud easier. Any apprehensions have shifted to the background, also helped by the fact that big names like Microsoft and Google are in the fray.



SkyDrive on a mobile device

Do you need it?

Yes. It's available for free, so why not take your share? Google Drive offers 5 GB, Windows SkyDrive offers 7 GB (25 GB for existing users) and Dropbox lets you use 2 GB for free – sizes that can be increased by certain recommended methods. You should defintely store data on the cloud, simply because with smartphone apps, it's easier to access, update, sync and manage on the move. Then again, you don't need to make an entire shift – use the cloud as an extended storage space to whatever setup you already have.

With three of the biggest players lined up, we try to identify which one makes more sense for you.

Your choices...

The cloud storage battles have clearly begun. Microsoft has fired a salvo by making SkyDrive more accessible with fresh additions to the desktop and smartphone app range. The Redmond giant has had this cloud storage service active for quite a few years now, but didn't really bother much about it till just recently. New smartphone apps for various platforms and a rejigged space structure show that Microsoft is serious about it.

Let's not forget Dropbox, which has been around for quite a while now, being the simplest service to use. From what we've seen among our social circle, it seems to be the most popular as well. Getting extra space by referring friends probably has something to do with that!

Google responded, as expected, with the Drive. The fact that the world and their dog has a Gmail account will inevitably make it get a huge user demographic signing up rather quickly. Integration with the much-loved Google Docs just adds the cherry to the top of the cake, doesn't it?



The Google Drive UI is the same as Docs'

The question really is – do any of these services offer something that will make you shift from whatever cloud service you're using right now?

Storage and price

Google Drive gets you 5GB file storage space, a bump up to 10 GB for Gmail and a separate 1 GB for Picasa. If you look closely, Google Drive is clearly an extension of Google Docs, with more space. As a package, Gmail and Picasa album storage get a boost as well. Very smartly done, but in one avatar or the other, all of these services already existed!

Microsoft is offering 7GB free space for new and some existing users, but is allowing most existing users to retain the 25GB space quota for free, if accepted within the offer period.

Dropbox starts with 2GB space for free users, with an extra 512MB for every person who accepts your referral and installs the desktop app. Google has a better overall package, irrespective of the fact that it's "old wine in a new bottle". But no annual storage upgrades are available – only monthly price

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1 Compared to Intel HD 2500 integrated graphics.
2 Blu-ray 3D playback requires the purchase of a compatible software player from CyberLink, ArcSoft, Corel, or Sonic.
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NVIDIA



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'Touché' and go
A smartphone silencing itself or a chair adjusting room lighting to user's preference, Touché, can do it all **http://dgit.in/IspyKK**



Your Google Docs files will show up in Drive when you sign up for it

points. Not to be left behind, Microsoft is attempting to counter that with more storage on offer from the outset – 7 GB. If you happen to be an existing user, we suggest you immediately claim the free 25GB retention upgrade while it still lasts. Meanwhile, Dropbox will really have to seriously rework the free storage options because 2 GB (before any referral upgrades) is just too less.

Office goes online

With Google Drive, you can continue to create, edit, store and share your documents from within one service. This negates the need to have a dedicated office suite installed on your PC or smartphone. It will undoubtedly appeal to those who already use Google Docs as a productivity tool. Those looking for a dead simple way to collaborate with others on documents, spreadsheets and presentations, now have another reason to use Google's cloud offering. Google Drive already has an app for Android devices, with the iOS version in the works.

Microsoft's SkyDrive offering works on similar lines as Google Docs, with its entire Office suite available on the cloud as Office Web Apps, The feature set is comparable to Google Drive, but Google's sharing and collaborative features are far superior. The web version of Microsoft Office is a watered down replica of its desktop suite, with many handy features missing, A feature bump is much desired.



Availability on multiple platforms and devices makes it "seamless"

Dropbox allows you to share files and folders almost effortlessly, but doesn't have an built-in Office suite like it's competitors. You'll have to rely on a third-party tool like Google Docs or OpenOffice on the PC to view/edit your files, while Dropbox will take care of the syncing and sharing. There is a silver lining though – Dropbox can handle a wider variety of files, since it's file-format agnostic.

Smartphone & Tablet apps

The Google Drive app for Android replicates the entire feature set of Google Drive on the web for a smartphone or tablet. Just like Dropbox, it syncs all files, irrespective of which device it was created on. And the desktop app for Mac and PC will keep your Google Drive folder completely up to date. Files can be marked as 'favourite' to make them available offline on your Android device.

Dropbox clearly has the advantage of a tried and tested app – available on most smartphone platforms – Android, iOS and BlackBerry. The desktop app works without a hitch - it creates a folder on your desktop, and anything you place in that folder will be synced to the cloud. It's not surprising that Microsoft has SkyDrive apps for its own Windows Phone platform, but they it also has one for iOS devices, which do everything the web version does – edit documents, browse and view pictures and even sync files on your mobile device to the cloud. The recently released desktop app gives it a huge advantage, offering Dropbox-like file syncing – albeit only on Windows machines. For smartphone users, Dropbox probably makes most sense. Paired with the app on your PC/ laptop, any changes made to your Dropbox folder on the desktop will be reflected in the mobile app, and vice versa. One handy feature of Dropbox is Camera Upload, where any photos taken with the smarpthone camera will be automatically uploaded to Dropbox. Users can turn off the feature if they choose, but it's a handy way to backup your photos. Plus, you get 512MB of free storage for the first photo you upload and an additional 512MB for the next 512MB of photos you upload, upto a total of 3GB.



Dropbox is very popular, considering the simplicity of use and ability to boost free storage

The winner: Dropbox

Without a shadow of a doubt, both Microsoft and Google have taken inspiration from what Dropbox has been doing perfectly for years. And it isn't surprising that Dropbox is the sensible choice here – seamless sync, impressive presence on almost all platforms and wide format handling. While it gives you only 2GB to start with, getting extra space is a breeze, upto a total of almost 22GB! It doesn't offer document editing capabilities, but for someone looking for a dead simple file-syncing service, Dropbox is the way to go.

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40 **The story of Agni**
India's intercontinental ballistic missile (ICBM) program has reached a new height. We look back on Agni V's journey and gaze into its future

FIFA 13 to be more realistic
A brand new technology called DI3D, adopted by FIFA13, provides highly realistic features to the players inside a game **http://dgit.in/J6TZKh**

A clear picture

With image deblurring you could soon be saying goodbye to those blurry shots which have ruined hundreds of your precious memories

Anirudh Regidi
readersletters@thinkdigit.com

Blurry images are the bane of photographers, be they NASA astronomers trying to capture the secrets of the universe, or an amateur photographer trying to capture an image of his/her delinquent puppy. Not very long ago at Adobe MAX 2011, Adobe demonstrated a seemingly miraculous cure to this problem. You load a blurred image into Photoshop, analyse the image, hit Deblur, and voila! You have a crystal clear image in almost no time at all.

This cure to blurry images isn't as simple as demonstrated though. Adobe itself was quick to point out that its algorithm works in only certain scenarios and the images it demonstrated were analysed to determine the best "deblurring" method long before they were shown to the public (http://dgit.in/JrpXTW). The technology is still in its infancy and is something that will involve a lot of time and effort to get right. Why is deblurring so difficult to achieve? One would have thought that with the oodles of computing power available, this should have already been in place by now.



Before and after images showcased at Adobe MAX 2011

How was it done?

Adobe's algorithms are top secret of course, but various deblurring algorithms have existed for decades now and have been used by forensic experts, various space agencies and even military organisations for more than a decade now. In fact, digital image stabilization, found in a lot of current digital cameras, uses a variant of these algorithms.

Let's start with the first step – you load your blurred image into a future release of Photoshop or similar image editing tool. The first thing the program does is analyse the image and try to determine its Point Spread Function (PSF). The PSF is nothing more than the path that's followed by your image sensor when the image was being taken. To put it more simply, your shaky hands followed a certain path while the image was being captured, the data captured by the sensor also followed that path and the algorithm tries to determine that path from the image. The PSF can even be the blurring caused by diffraction, an out-of-focus image, etc.

A simple analogy

Consider that you have a paintbrush that is fixed to a wall. If you were to hold up a paper to that brush, your hands would inevitably shake, resulting in a squiggle on the sheet of paper. You feed this paper into a computer and ask it to analyse the squiggle and figure out what the shape of the brush's tip was. This, while still a bit complicated, might be managed. Now imagine you had a million brushes attached to a wall, some moving at random, others of varying colours and at various angles, and you try to hold another sheet of paper over this. The resulting squiggle would be horrendous to behold (or maybe modern art) and you then ask the computer to figure out what the original pattern was. It's a monumental task, and despite the smartest algorithms in the world, this task would take ages.

Obviously, each paintbrush represents a point of light from the image you're trying to capture, the paper is the sensor and your hands (or something else) are the image



Before (without the sensor attached)



After (with the sensor attached)

stabilizer and the squiggle is the blur. The nature of the squiggle is the PSF and in this case it's a spatial PSF as it determines the path of the blur.

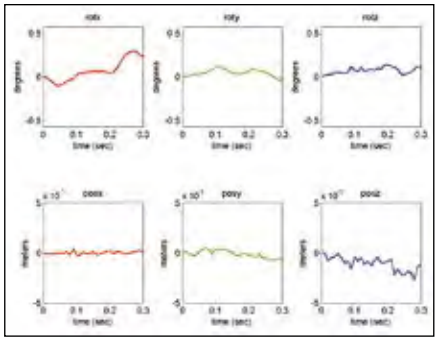
So how do you determine the PSF?

Advanced mathematics aside, the squiggle is determined by various algorithms. The algorithm tries to determine some reference points on the image captured (straight lines and corners are ideal), not to mention point sources of light and/or colour. Corners, such as the edges of doors and walls are especially useful as their motion can be very easily tracked and the PSF can be determined. In fact, when analyzing an image for the PSF, it's often advantageous to manually highlight an area where such pointers, including text, are present. This would narrow the search parameters and vastly reduce the required computing power. Other methods include image statistics, where a multitude of images are analysed and a pattern is inferred from them, which can then be replicated to apply to most average blur scenarios.

Deconvolution

The PSF is usually determined by a method known as blind deconvolution. What is convolution, you ask? Well, consider a pixel at a co-ordinate designated by (m,n). When this pixel is moved along a path (the PSF or blur path) determined by a function f(x,y), it gets "convoluted" and merges with that function to create a new function g(m,n). The purpose of deconvolution is to separate (m,n) and f(x,y) from g(m,n). The reason this is called "blind" deconvolution is that nothing is known other than the final output. The algorithm must determine g(m,n); from that it has to find f(x,y) and thus (m,n) and it has to do this for the millions of pixels that the image would probably consist of.

What agencies like NASA have done with its Hubble Space Telescope and similar projects is determine the PSF in advance. It can determine this PSF as it knows the exact shape of the lens and even the exact path of the telescope. Every movement is precisely documented during an exposure, similar to an inertial navigation system, and the PSF is generated. This PSF is then simply fed to the algorithm and you end up with a clear image with a minimum of fuss and hassle.



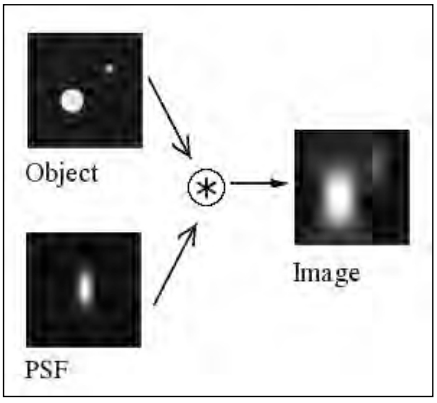
Microsoft's sensors at work



Parameters measured by the sensor



The sensor used by Microsoft



Convolution (Source: Wikipedia)

Microsoft's work

Microsoft Research has been hard at work since 2010, working on a hardware system to assist in this noble effort of deblurring your images. It developed a simple attachment consisting of sensors which analyse and track six specific parameters or degrees of freedom (DOF). These include factors such as acceleration, angular momentum, pitch and yaw, etc. These factors are meticulously recorded by the sensors (nothing more than standard accelerometers and gyroscopes) and a PSF is obtained. This PSF isn't 100 per cent accurate and is therefore only used to aid a modified blind deconvolution algorithm, creating what the researchers are calling an "aided-blind deconvolution" algorithm.

The science is still not perfect but it does go a long way in reducing and almost eliminating blur from an image. The hardware involved is very basic and given time and a degree of refinement, should be compact enough to easily fit mobile phones and even camera lenses as a standard feature. The real advantage of this system, and where it beats camera stabilization, is in the fact that current IS only manages 2D stabilization – well short of the 6DOF system being developed by Microsoft.

A clearer future

The deblurring technology showcased by Adobe is still far from ready. Even the research being conducted by Microsoft is still in the prototype stage and there's a long way to go before this technology can get mature enough to see widespread usage. Having said that, what we've covered in this article barely scratches the surface of what has and is being done in this field. That future however is something we're looking forward to with a lot of anticipation. Taking photographs will just be so much easier, just imagine, fancy lenses and tripods can easily become relics of the past. Photography can return to its roots, where all the photographer has to worry about is the scene in question rather than the gear to be carried.



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New monitors from Simmtronics
The company has launched 5 LED monitors worldwide of different sizes at prices starting from ₹6,000 and going up to ₹13,000

The story of Agni

India's intercontinental ballistic missile (ICBM) program has reached a new height. We look back on Agni V's journey and gaze into its future

Ravi Sinha
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April 19th 2012: Wheeler Island, just off the coast of Orissa, was the testing site for the Defence Research and Development Organization or DRDO for the latest in its intercontinental ballistic missile technology, dubbed the Agni-V. It stands 17.5 meters high and 2 meters in diameters, with a weight of 50 tonnes and is capable of carrying warheads at a weight of 1,500 kilograms. The missile disappeared into the clouds at an altitude of 600 kilometres. The re-entry vehicle was then injected into the atmosphere at an altitude of 100 kilometres at a velocity of 6,000 meters per second. Armed with a dummy payload in its nose, it hit just a few meters away from its designated target. The approximate distance travelled by the Agni-V: 5,000 kilometres. The estimated distance it can travel is pegged to be around 5,800 kilometres (the distances of the Agni-III and IV were 3,000 kilometres and 3,800 kilometres, respectively), though in truth, it's still unknown. Even with two more validation tests to go, the missile was dubbed a success by authorities within the DRDO and the Indian media. The development of the Agni-V reportedly places India in a strong position amongst ICBM-capable nations.

Agni, India and the World

Agni is India's de facto missile system comprising of mid-range to intercontinental ballistic missiles or ICBMs. The latter is what fuelled concerns during the Cold War, as they are the primary means for delivering nuclear warheads across distances ranging from 5,000 to 10,000 kilometres. This is made possible by launching them into low orbit, up to an altitude ranging from 150-400 kilometres, before crossing a sub-orbital flight path along the Earth's axis and re-entering the atmosphere at 100 kilometres to strike a target. They exist primarily as deterrents, though modern ICBMs have enough accuracy to hit even the smallest point in a city. The Agni I to IV are mid-range missiles, deployed by the Indian Army and Special Forces. With their success, the Agni family was eventually given special funding, which has lead to the development of Agni V, India's first true ICBM.

Media coverage amongst different nations has been largely positive, with some criticism. "Objectively speaking, China does not spend much guarding against India, while India focuses a lot of attention on India," according to the Chinese state-run Global Times. The US State Department complimented India's "solid non-proliferation record", with other authorities stating, "The lack of US condemnation of India's latest missile test demonstrates that the US is comfortable with Indian progress in the nuclear and missile fields and appreciates India's need to meet emerging strategic challenges."



Launch of the Agni V missile from Wheeler Island

Whatever the world thinks, it's obvious that the DRDO struck gold with its latest designs. Borne from a desire to guard against not one but two nuclear-equipped neighbours, the DRDO set to work to develop an appropriate follow-up to its Agni-III missile. "More than 80 per cent of the missile is indigenous, except for the electronic components which we import. Everything has been designed, developed and produced in our industry and our laboratories." said DRDO chief Dr. V.K. Saraswat.

ICBM Working and MIRV Advancements

Achieving the exact precision required for the Agni-V was one such task, which led to the development of a new propulsion system. Unlike its predecessor, the Agni-III, which follows a two-stage propulsion system, the Agni-V goes through three stages in its propulsion. The first stage is very similar to that of the Agni-III, which uses a solid-fuelled, advanced carbon composite as a booster. The second and third stage are modified, with the third stage being miniaturized and enlisting the help of composite motor casing to fly further ranges. The composites also help reduce the amount of weight on the missile.

One of the primary functions of the Agni-V, however, is mobility. It utilizes a canister, made of maraging steel, which preserves the missile is a tightly sealed atmosphere and ensuring it's transportation for several years. A canister needs to be strong enough to withstand the external pressure and heat generated during a missile's launch and flight. Maraging steel, with a melting point of 1413 degrees centigrade and maximum tensile strength up to 2500 MPa, seems

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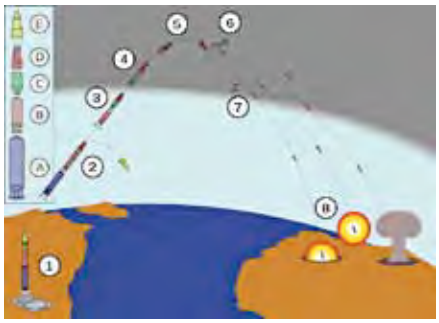
Firefox experiments with Blekko
In an effort to integrate a search engine like its rivals, Mozilla has entered into partnership with instant search engine, Blekko **http://dgit.in/Lq5MAg**

Socialize while dying
My Last Wish is a social network which helps people to socialize with other dying people that have similar last wishes **http://dgit.in/KeWJof**

like the obvious choice then. As Avinash Chander, director of ASL describes, "The Agni-V is specially tailored for road-mobility. With the canister having been successfully developed, all India's future land-based strategic missiles will be canistered as well."

The most important aspect of the Agni V is the incorporation of multiple independent re-entry vehicle or MIRV technology. It's best to think of this as a guided cluster bomb – the main rocket moves into suborbital atmosphere and pushes a bus containing the nuclear warheads into a free-flight path. From here, it becomes a re-entry vehicle that manoeuvres using on-board systems to different targets, releasing a warhead on the calculated trajectory. The process is repeated for multiple targets. What makes MIRV so dangerous is that (a) anti-ballistic missile systems become almost useless, since they're designed to attack a singular warhead with a singular missile (b) can cause a large amount of damage to a number of targets, while only requiring a single missile for launch, and (c) increase the effectiveness of radiation, since it counters the inverse-square law (where radiation diminishes as distance from target increases).

In addition to inertial navigation systems, the Agni V is also equipped with a ring laser gyroscope for accurate guidance



Stages of an MIRV's working, from launch to suborbital height and re-entry, ending in deployment of warheads

towards a target. This is made possible by using a ring laser, which detects shifts in standing wave patterns between the counter-operating beams, thus observing rotation. Ring laser gyroscopes has no moving parts, and are therefore more accurate. It doesn't suffer orientation changes, and is tough, deployed in most commercial, military aircraft, and spaceships.

"MIRV technology is similar to Indian Space Research Organization's multiple satellite injection technology. The defence scientists have to militarise it and install better guidance system to ensure that warheads hit the targets," according to Agni Project Director Tessy Thomas.

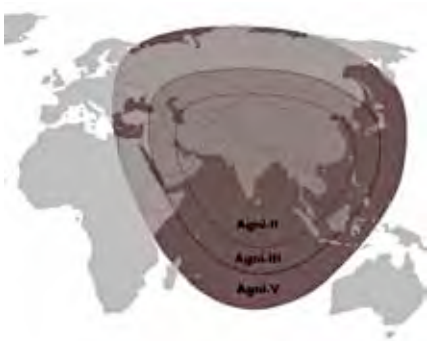
Each Agni V missile will be capable of carrying between 2 to 10 separate nuclear warheads; using different on-board inertial guidance systems and rocket motors; each warhead can be steered to different targets, hundreds of kilometres away from each other, thus maximizing the damage caused by a single missile. Conversely, a select few warheads can assigned to a single target. Deeming it a "force multiplier," Saraswat explains that, "Where I was using four missiles, I may only use one missile. So it becomes a force multiplier given the damage potential." This single aspect alone has catapulted India into a league occupied by the likes of the United States, Russia, China, France and Britain. MIRV is still currently under development at the DRDO, and the exact date of its testing is still unknown.

India's Future in Missile Technology

With so much destructive power already at its capability what comes next? The obvious indication is that the DRDO would begin developing missiles with ranges of 8,000 kilometres and more. After all, China's ICBM capability is significantly larger. "Whenever the need arises, we will develop. Right now we feel, 5,000 km-class of system meets our threat perception and requirement. But that doesn't mean we won't develop a longer range missile." Saraswat said.

This development seems to be heading towards furthering the intercontinental divide, most specifically with the Agni VI. As of now, there is no official confirmation from the DRDO on the existence of the Agni VI, though a newsletter published last year alluded to the existence of an ICBM with a range of 6,000-10,000 kilometres. This missile would also have the capability of launching from underwater, as well as from the ground, and would be equipped with MIRV technology.

Other missile technologies the DRDO are developing include the K-X series of missiles, designed to launch from submarines. It features three variants: The K-15 (surface-based) which has a range of 750 kilometres, the K-4, which is based off the Agni III/IV technology



Comparison of missile ranges for Agni II, Agni III and Agni V

with a range 3,500-4,500 kilometres and the upcoming K-15, based off the Agni V. This is not including the Astra family of missiles, a beyond-visual range, air-to-air missile which is to be fitted on different fighter aircraft. The Astra Mark 1 missile was tested last year by the DRDO, and can reportedly annihilate targets at supersonic speeds and at ranges of 21-110 kilometres; depending on the altitude it is fired. It reportedly has an active homing range of 25 kilometres, and contains on-board electronic counter counter-measures or ECCMs to jam radar signals from Surface-to-Air Missile or SAM sites. This means it can't be shot down easily either. The Mark 2 version of the Astra reportedly has a range of 150 kilometres, though Saraswat would not comment on its actual range. On a side note, there's also ISRO's 640 ton GSLV MK3 rocket (dubbed the "Monster Rocket"), India's bid for launching astronauts into space.

However one may feel about nuclear proliferation, Agni V is a proud moment for us. It's a little disheartening that its electronics were imported from outside, indicating we still lag behind in manufacturing computers that can match developed nations' military tech. Nonetheless, the Agni-V represents a significant step towards increasing security for India.

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Gen O
born with a digital spoon



What will life be like for the first generation of humans that have always had technology around them?

Robert Sovereign-Smith
editor@thinkdigit.com

There's a documentary film called Generation Zero, about what caused the US recession. This has nothing to do with that. Our Gen O is, well, for all practical purposes, the Facebook and Google generation. The first generation to grow up with technology all around them, woven seamlessly into their lives. The smartphone generation, the iPad kids, the Internet babies... you get the drift.

If you're reading this magazine, you have to exclude yourself from this exclusive club of city-born, decently well-off, exposed to technology from birth...err... babies. It's the generation that's being named after Googling "baby names", whose parents watch YouTube videos to learn how to change diapers, or how to correctly burp a baby. Internet parenting at its very best. OK, perhaps I exaggerate a little by generalising, but I've seen it happen around me.

When we conceptualised the idea of "Tech Reborn", we thought about how technology is changing, and how it's adapting to our usage patterns, how it's weaving itself into the very fabric of our lives, etc. For now, before we think of going down that road, we have to first look at how technology is changing us... not just as individuals, but also as a society in general.

My digital valentine

The tech savvy are using technology for absolutely everything. Internet marriages are hardly uncommon these days, even in our rather conservative society. Indian's are hooking up online, date, go out, and some eventually get married. Soon no one will sit and reminisce about the "good old days" – waiting in line to pay utility bills, or transfer money. Heck, we wouldn't even visit malls anymore if it wasn't for the fast food courts and the chance to fraternize with the opposite gender – we can work, be entertained, socialise, learn, shop... all at home. There's no real reason to go out anymore in a true digitally-thinking culture.

However, we're also blending and merging into this one large amalgamate of boring sameness. What romantic stories will we tell the next generation about how we met our significant others – an ad on a marriage portal, love at first sight on Facebook, or perhaps at a tech store, where you helped her choose the right router for her home?

Again, I exaggerate; but isn't that where we're headed eventually?

Social networking – the end of society as we know it

Yes, I know we harp on about this often enough, but there's a reason. It's not like you couldn't chat with others right since the earliest days of the Internet. IRC, ICQ, bulletin boards, etc, were all about sharing information. All the IM services that followed were all just precursors to what we see now. However, being anonymous was key then, and being known is key now. Learning and enhancing skills was important then, socialising and becoming semi-famous the goal now.

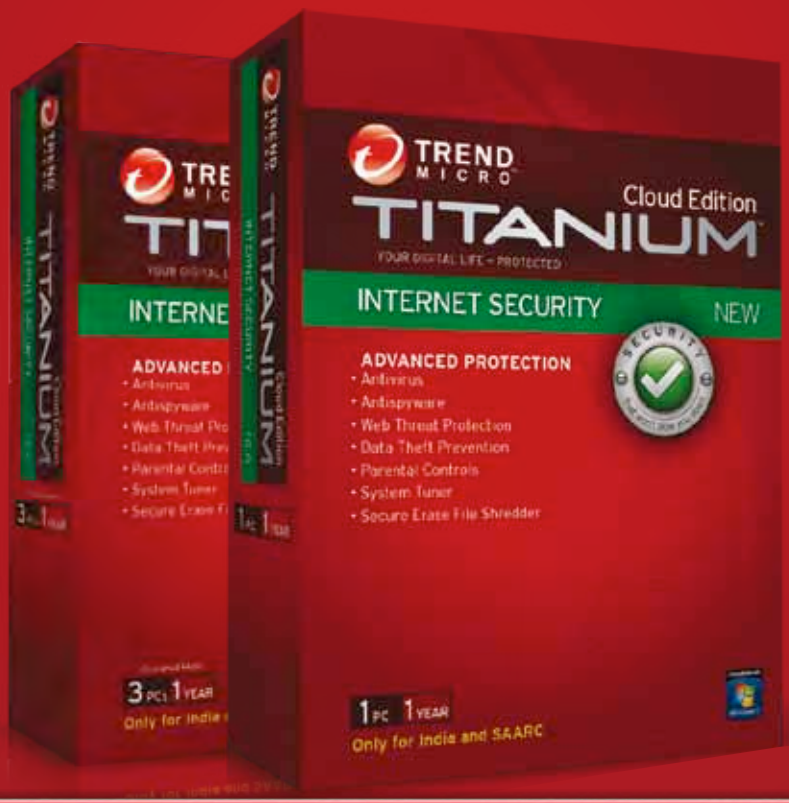
Take a look at Twitter. It's a wonderful tool for quick breaking news, sharing something with your followers, or quickly adding an insight to a current topic. How many of us use it that way though? All we end up seeing is individuals who try to be witty, or comment on as many topics as possible, with no real insight. We re-tweet interesting looking posts without even opening the URLs

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they contain, all in an effort to look cool, or knowledgeable.

Facebook is like the world's largest college cafeteria, and also the world's biggest photo album. We have to let people know what we're doing, how cute our Gen 0 babies are, what we ate last night, how delicious it was to wash it down with wine...some will even describe what it was like coming out the other end... While Gen -1 (us, we, you, I) remembers being paranoid about security and privacy at one time, we ourselves are now throwing our privacy out the window and shoving our business in every face who friend's us. One can only imagine what Gen 0 will be up to...

We already live in a world where a tweet is not the sweet sound a bird makes, and where the people you know the most details about are often not the people you would call good friends. Is that where we're headed? Knowing everything there is to know about people you never meet, and not knowing yourself, your family or kids unless they post something online? It certainly feels like we're becoming more anti-social in the age of social networking!

Raised by tech

Coming back to the iPad kids I mentioned earlier, I don't know a single tablet owner, who also happens to be a mother or father, that doesn't extol the wonders of iPad parenting. It's simple really: once a kid's about two years old, just hand him/her an iPad, and revel in the sweet serenity of them being too enthralled to howl and bawl and drive you up a wall. My apologies,



Gen 0 is starting younger than ever before

to anyone thinking of dashing off indignant emails to me, explaining how you're encouraging your child's creativity – I'm sure you're the exception!

What are we really instilling in children though? It's OK to waste time with frivolous technology, so long as you do it on your own, and leave us alone? Don't get me wrong, there are 6-year-olds out there who know more about technology than I did when i was 18! Gen 0 is not just smart, it's seriously out-pacing the previous generation's adaptability to technology. They learn quicker, they take to new devices like a duck to water and they are up on all the latest developments. We have Digit readers as young as 8 who are already coding, thanks to them being born with a digital spoon, so to speak.

Weak geniuses?

Various studies across the globe have shown that our new digital lifestyle is harming our health. We sit around more often than we walk or run, work all the time, eat unhealthily, brainlessly stare at the million channels on offer (online and on TV), are sleep deprived and fall sick easily. I should know, I'm describing myself and most of Team Digit, our friends, relatives, and just about anyone under the age of 35. I spend more time IM-ing my friends and family than I do chatting with them face-to-face – who has the time to actually "meet" anymore?

One doesn't miss what one doesn't know, of course, and if we're already mostly digitally present for our own lives, what will a generation of people who are brought up with technology all around them do?

Although we may be growing smarter as a civilisation, it's not street smarts that we're imparting. Studies have shown that the human race is becoming weaker than ever before when it comes to handling crises and catastrophes. We humans got through two World Wars and a Cold War, and yet I've seen teens whose brains almost seem to shut down the minute they come across a few of life's hurdles. They can code software, but are left scratching their heads with the smallest real-world problems. If anything, the distractions of trying to do a million things at once is probably the biggest hurdle that lies ahead for Gen 0 – regardless of what they will be doing, I'm quite sure they'll have to "multitask". Jack of all, master of none.

DUNNING-KRUGER EFFECT

Charles Darwin once said "Ignorance more frequently begets confidence than does knowledge". David Dunning and Justin Kruger of Cornell University did a study of undergraduate students, testing them for various skills including humour, logic and grammar. After testing the students, they shared a student's test results with him/her and then asked the student to rate where in the rankings they had placed.

What they found was that the weaker students tended to seriously overestimate their ranking, whereas the high scorers tended to underestimate themselves. Thus, they concluded that people tend to suffer from "illusory superiority", or basically, the dumber you are, the smarter you think you are in relation to the rest of the world. This is what usually manifests itself on social networks, forums, and most public places online these days. People love to comment and offer their 2 cents, genuinely believing that they're being witty, funny, logical, or adding value in some way; they're not; most of the time.

A follow-up study found that with a little teaching, the worst students were quickly able to estimate their rank more precisely, even if they didn't fare much better in the tests. What this basically means is that after a reality check, we're better at realising what we do know and what we don't. The only problem is... a reality check from real-world friends, parents, teachers, people you respect, sure; but when was the last time you paid any attention to someone online who insulted you for your lack of knowledge?

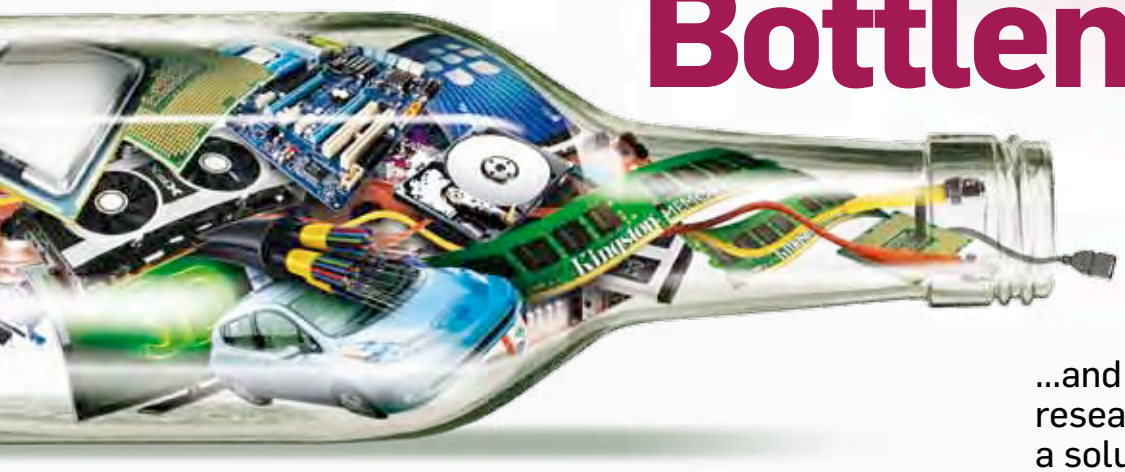


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Technology Bottlenecks

Currently Holding Our Future to Ransom...

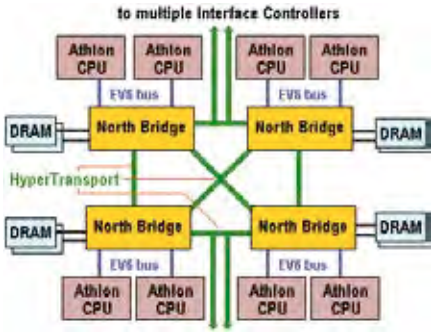
...and cutting-edge research that is promising a solution

Ravi Sinha
readersletters@thinkdigit.com

W.H. Auden once wrote in his famous poem, 'As I Walked Out One Evening': "All the clocks in the city began to whirr and chime: O' let not time deceive you, you cannot conquer time." A facet technology seems willing to ignore at this juncture. Several years have passed since the introduction of 1 GHz CPUs, Blu-Ray Discs and even electric cars. And yet, technology seems stuck, unable to progress further into the beyond and achieve the next stage of performance. But it doesn't mean it's not close. Let's take a look at some of the biggest technology bottlenecks currently holding the future to ransom, and the advances coming our way to set us free (without the horrifying consequences that discovering a world conquered by machines would bring).

CPU Speed

When processors broke the 1 GHz barrier, it was a significant achievement in computer history. However, over the past few years, CPU speeds have hovered around 2.5 GHz, when you take single-core processors into consideration. Yes, multi-core systems seemed to be the breakthrough we needed, but they carry their own bottlenecks (see next). Also, despite said breakthrough, a single core still clocks in at around 1.5-2 GHz. So why hasn't processor speeds increased over the years? A prominent factor is transistor size – they're getting smaller, which allows more transistors to be packed onto a single dye (thus obeying Moore's Law), but they're not getting faster. CPU transistors these days follow the metal-oxide semiconductor field-effect transistor or MOSFET scaling process, and they function as electronic signal switchers. As they become smaller, transistors are supposed to switch faster, which leads to increased performance. However, MOSFET scaling has its fair share of bottlenecks. The electrical circuit itself faces various issues with higher sub-threshold conduction (which consumes half of the total power consumption), difficulties in scaling down the transistor size beyond a certain point (as Intel has done with its Ivy Bridge chipset, managing a 22 nm size); interconnect capacitance (which is the metal-layer capacitance between various portions of the chip. As it becomes greater, there is an increased delay in the travel of signals through the interconnect, leading to lesser performance), and many more.



AMD's Hypertransport forms point-to-point links between different components, eliminating the need for a front-side bus.

Another issue is the "interconnect bottleneck". Integrated circuits are downscaled in size to allow transistors to run at higher frequencies – at the cost of tighter packing of the already dense CPU. This increases parasitic capacitance – a type of capacitance created simply by the proximity of electrical components, which thus causes them to divert from their best possible performance. In more serious scenarios, it can lead to "crosstalk" wherein signals from one circuit meld into another, thus generating inference in operation. There's also the issue of signal propagation

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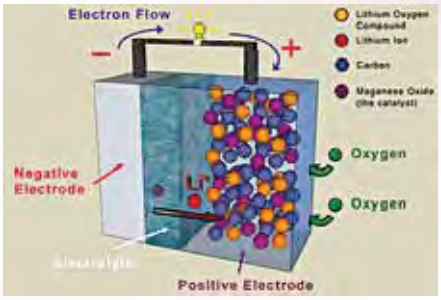
delay, thus resulting in lesser speeds. Solutions range from altering transistor material to using optical components for integrated circuits, both currently expensive methods. Intel has been working on a new 3D integrated circuit, wherein the components are arranged both vertically and horizontally in a single circuit. This allows for more transistors within a smaller volume of space, thus following Moore's Law and providing increased performance. This would result in shorter interconnects, significant reduction in power consumption, lesser production costs, and a brand new range of design possibilities.

Battery

The battery is the quintessential component of just about every mobile device. They work by converting chemical reactions into electrical energy, when electrons flow from a positively charged cathode to a negatively charged cathode, passing through an electrolyte substance. This difference in charges thus produces an electrical current. Power management in desktop systems is important, but ever more so for smart phones and tablets. Their mobility and performance is defined by just how long you can go off a single charge. However, the technology itself has remained unchanged for more than 8 years. This is evidenced by no less than the newest iPad, whose battery takes up about 90% of its total weight. Lithium Ion



IBM showcases a comparison between current battery technologies and it's upcoming Lithium-Air Cells



This diagram showcases the movement of electrons between electrodes within a lithium-air cell

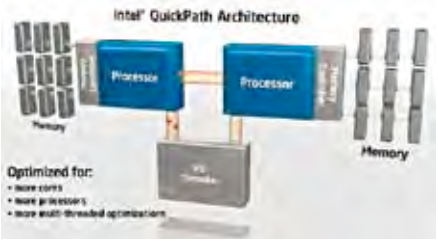
cells show good energy density, with very little discharge when not in use. They rose to popularity because of their recharge ability, thanks in due to the lithium compound present as the electrode material.

There are drawbacks: Lithium ion cells also have the disadvantage of gradually losing capacity as they're used for a longer time. There are also dangers of these cells facing leakage, or worse, combustion, if they are overcharged. The sheer number of safety measures incorporated to prevent this from happening take up valuable space in the battery, thus making it bulkier.

But researchers have been looking for alternatives. Some propose moving on from lithium to other metal compounds. IBM is hopeful of its use of air. The cathodes are made of carbon rather than lithium, which then react with oxygen in air to produce electricity. However, there are issues with getting the battery to recharge. Plus, lithium ignites when in direct contact with moist air. Currently solutions are being worked on to rid the battery of this issue, and we could see developments by 2013, with plans for commercialization by 2020.

Front-Side Bus

The Front-Side Bus or FSB is a little-known but very vital component for every system. As part of the motherboard, it is the central link between the CPU and other devices within a computer. The overall bandwidth that FSB can provide is dependent on its clock frequency, its data path width and the number of data transfers it performs per cycle. The problem arises with the number of clock cycles an FSB can perform. If it goes by the frequency set by the motherboard, which leads to a set number of clock cycles, then overall bandwidth will be limited. Hence no matter how much faster CPUs get, their speed will always be constrained if the FSB can't keep up, as the CPU remains idle for one or more clock cycles until the memory returns its value. Memory in a system is also accessed via the front-side bus, which limits overall transfer speeds since bandwidth is being utilized for this purpose. Both AMD and Intel are working on their own advancements over the old FSB, HyperTransport and



Intel showcases it's new QuickPath Interconnect technology to replace front-side buses in the future

Quickpath Interconnect respectively, which promise to provide point-to-point connections over the use of the FSB as a central connecting point. Using this AMD's HyperTransport, for instance, allows for a theoretical transfer rate of 51.2 GB/s of aggregated throughput. To ensure none of the bandwidth for these point-to-point links is wasted, a separate memory controller on the CPU itself is used to access RAM. Currently, AMD and Intel employ their respective technologies within various components, and they are being tested for replacing front side bus in motherboards.

You can read the rest of this article (which covers all 10 tech bottlenecks):
http://dgit.in/cover_bottleneck

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Hot Technology 2012 or Not

We take a look at technologies that are just around the corner and conversely those that you didn't think were on their death bed

Nimish Sawant
readersletters@thinkdigit.com

As with life, change is the only constant in the tech world. Every year we keep coming across new technologies and at the same time, there a lot of technologies that slowly but surely ride into the sunset. The aim of this piece is to help you keep an eye out for technologies which are going to go mainstream in the coming years. Followed by those which we think are dying or already dead.

WHAT'S HOT
There's something in the air

Even though we live in an increasingly wireless world, there are still many wires around. Take a look at your desktop system and there is bunch of wires hidden somewhere. Somehow, transfer of electricity from the power source to the device still requires wires, with devices having batteries, you again require wires for charging. Sure, there is inductive charging, but that requires a close contact between the device and the source. So when do we get over wires? How about electricity going wireless?

The concept of wireless transfer of electricity was first worked on by Nikola Tesla back in the 1900s, but he wasn't entirely successful. Back in 2007, a group of researchers at MIT from the Department of Electronics and Computer Science and Department of Physics developed a prototype which transferred electricity wirelessly and lit a 60W bulb. They went on to form the company called WiTricity which is still conducting research on the practical applications of this technology.

Resonant energy transfer is the technology behind the experiment. It involves two resonant objects operating at resonant frequency. So the oscillating power emitter generates a magnetic field (as it is powered to a source), which is coupled with the receiver coil (which is oscillating at the same frequency as the emitter – resonant frequency). This causes the receiving coil to generate electricity which powers the devices it is connected to.



Resonant energy transfer taking place between the source emitter and receiver. The coupled magnetic field (in blue) causes the receiver coil to generate electricity which lights up the bulb

Conceptually it is similar to inductive stoves or inductive chargers, which use magnetic field to transmit electricity, but these devices work at a very small range. Resonant energy transfer allows you to extend that distance between the power emitter and the receiver by a few meters.

As this is a non-radiative form of energy transfer, involving coupling of the emitter and receiver using magnetic field, it is considered safe. Also the energy transfer will happen only if the receiver is resonating at the same frequency as the emitter.

Some of the applications include: direct wireless powering of devices in the home such as TV, microwave ovens, refridgerators, etc.; wireless charging of devices such as cellphones, tablets, laptops; industrial applications where you can wirelessly power or wirelessly charge key components on the factory floor; wirelessly charging electric cars.

Links to check out:

- WiTricity website http://goo.gl/xHrzL
- TED Video demoing wireless power transfer http://goo.gl/wBef2

Super high-res TV screens. Yeah we are talking 4K

As if the full HD resolution was not enough, TV manufacturers will soon come out with display panels which will take the resolution from 1920x1080 which we currently call full HD to 4096x2160 which will

be called 4K. Just like TV manufacturers went ga-ga over the 3D TVs, expect a barrage of 4K TVs in the next couple of years. Actually there is no fixed resolution as such for 4K. Even panels with a display of 3840x2160 termed as Quad HD are being considered under the 4K segment.

Apart from adding over 5 million more pixels than a regular 1080p panel, the advantage of 4K technology is seen on big theatre screens, and with passive 3D on TV. Current passive 3DTVs from LG and Toshiba use half resolution ie. 1920x540 pixels while viewing in 3D. That resolution will be bumped up to 3840x1080 pixel image per eye. So a higher resolution will certainly help make the 3D effect more immersive.

Opinions on the use of 4K TVs in a home environment are mixed with experts calling it overkill. Consider this, it is quite difficult to differentiate between a 720p and a 1080p panel, so how will it be easy to differentiate between a 1080p and a 4K panel? At a distance of 10 feet, it is very difficult to resolve individual pixels on a 1080p panel. With 1080p panels available to upto 65-inches for home use, for 4K the screen size certainly has to be greater than that to be able to enjoy the content. YouTube has support for 4K videos but according to YouTube company engineer Ramesh Sarukkai, the ideal screen size for 4K videos is 25 feet! Yet another concern is availability of true 4K TV content. But TV manufacturers are going all out to woo consumers.

At CES this year, LG took the curtains off its 84-inch 'ultra-definition' LCD TV. Sony unveiled its 4K projector system earlier this year and is already working on 4K TVs alongwith adding the option to upscale HD content to 4K within their Blu-ray players. Sharp went even a step further, showcasing an 85-inch 8K (7680x4320 reolution) prototype which it plans to out in 2020. Toshiba announced a 4K LED backlit LCD TV with glasses-free 3D (auto-stereoscopic) panel. Samsung showed a prototype of a 4K TV at CES as well.
-Sharp 8K TV demo http://goo.gl/YvYwz



LG 85-inch 4K TV showcased at CES2012

Better cellphone and tablet Battery technologies

This is one area where the technological innovation hasn't been as great. We are still using the same AA and AAA batteries that we did 20 years ago. Also we are using the same lithium-ion batteries that we did say 10 years ago. Majority of our tablets and cellphones house the Li-ion batteries, so do many cameras, but their usage time will not be beyond a day, in most cases. How can we get batteries to last say a week or months? Let us first get the basic working of a Lithium-ion battery. When in use, the lithium ions travel from the anode via the electrolyte to the cathode. While recharging the battery, the lithium ions travel to the anode from the electrolyte. Current bottleneck involves the amount of charge a battery can carry – higher capacity battery is bigger in size which is not desirable in sleek phones and tablets. Secondly, the recharging time for these Lithium-ion batteries is quite high – in terms of hours. But a group of engineers at Northwestern University, headed by Harold Kung, claim that they have found a way to increase battery capacity by up to 10 times the current capacities (allowing cellphones to run on a single charge for a week!) and reducing the recharging time to just 15 minutes! Traditional batteries use multiple layers of carbon-based graphene sheets as anodes. Six carbon atoms can accommodate one lithium atom, so there is a limit there, as to how much a battery capacity can go upto. Silicon on the other hand can accommodate four lithium atoms for every silicon atom, but silicon has a tendency to expand and contract whilst charging which can get problematic.

The other issue - slower recharging time - can be attributed to the fact that the current anode material involves long and thin (one carbon atom thick) sheets of graphene. In order to completely recharge, the lithium ions must travel from the electrolyte through the graphene sheets and settle down between those sheets. This takes time and there is a sort of accumulation of ions at the sheet edges.

Northwestern University researchers have overcome these two issues. For improving the capacity of the battery, they have used cluster of silicon atoms within the graphene sheets to accommodate more lithium atoms – this also keeps in check the volume changes in silicon as the graphene sheet is flexible. For improving recharging times, the researchers have drilled 10-20 nanometer wide holes in the graphene sheets which will allow the lithium ions to reach the anode faster.

This technology is still three to five years away, but its practical applications are immense. Apart from a future where phones have a week long battery life, these batteries can work wonders when used within an electric car.

Sense My Health

Healthcare is one area where technology is quite pertinent. Specially with an elderly population in a country like ours where it is not always easy for children who may be working or studying, to monitor their ailing parents. Using wireless wearable sensors can come in very handy in such scenarios. The sensors together with processing units, make up what is commonly known as a Wireless Body Area Network (WBAN). These networks employ easy-to-install, low-cost and low-power sensors which should be robust

enough so that they are not affected by the operation of other devices in the house such as ovens or cordless phones, etc.

The primary aim of these sensors is to collect raw data from the patient's body such as heart rate, temperature, pressure, glucose levels, etc. The data collected by these sensors is wirelessly transmitted to an external processing unit located inside the house or on the patient's body. US has a special frequency band called Wireless Medical Telemetry System (WMTS) which is meant for transmission of data related to a patient's health. IEEE in fact has established a task group called IEEE 802.15.6 for standardization of WBAN. Since it is a wireless transfer of data, security measures will need to be put in place to ensure mass adoption of such technologies.

After relevant processing, this data can be transmitted to a remote server of a hospital which is monitored by resident doctors or it can be sent directly to your personal physician's handheld device. This transmission can make use of your regular data networks such as ethernet or Wi-Fi or cellular spectrum. As the data is being sent in real-time, you have an assurance that if anything untoward is picked up by the sensors, the response time of the doctors should be quick. This will help medical professionals to detect issues with health beforehand. Also, it does help in saving multiple trips to the doctor or hospital for getting checkups and reports.

Although WBAN as a system is still not heard of in India, the immediate advantages of implementing it soon are tremendous. In rural areas for instance, where it might not be possible for patients to visit doctors or hospitals as often as it is in cities, or if hospitals are located far off from their residence. It also helps in reducing healthcare costs to a great extent.

Flexible Displays

Cellphone are getting sleeker by the day and the display technology is undergoing changes slowly but surely. From TFT displays we have moved onto AMOLED displays, making them contrast-heavy, making images and videos more vivid, increasing resolutions, among other things. So, next is what?
The clue lies in the end of the last para.

Mobile phone manufacturing giant, Samsung showcased a flexible AMOLED display back in 2011, whose screen was made of a plastic called polyamide which renders the screen unbreakable. This year again at CES we saw Samsung showcasing a flexible display cellphone prototype, whereas LG had flexible e-ink reader measuring a measly 0.3mm in thickness, production of which has already started according to some reports. Nokia also showcased its proof-of-concept Kinetic cellphone which although not a touchscreen, but has a flexible display which can be programmed to navigate through music and photos by bending the screen in certain ways.

Apart from the novelty of being able to bend displays, the possibility of lower power consumption display is what is more tempting. Not to forget, if these flexible displays are able to be rolled up or folded, then it can save some amount space in your pockets. Think a rollable display with a broadsheet newspaper form factor. Use the immense screen real estate and when you're done, just fold it up and keep it in your bag.

While cellphones and e-readers seem like the initial consumer products that may come out of this technology, the possibilities are endless for advertisers and marketers as well. Tablets with flexible displays can be opened up to enjoy movies on a bigger screens and then be folded back for regular surfing. Wear a future Apple iOS device as a wristband. We will not elaborate much about the materials as we are planning to do a bigger story just on Flexible Displays next month, so do not forget to check it out.



Flexible displays

WHAT'S NOT

On the other hand there are some technologies which we are disowning at a quick rate. Go back five years and you will realise that you have stopped using at the very least, one of the following technologies:

Entry level graphics cards

Processors these days come equipped with enough integrated graphics prowess to tackle tasks such as HD playback, basic gaming, multiple displays, etc. Intel had entry level integrated graphics with the Sandy Bridge processor lineup. AMD replied with a superior integrated graphics component with the Llano series of processors. Intel has recently come out with Ivy Bridge processors which sport much better integrated graphics than the Sandy Bridge chips. In fact so good is the IGP on Llano and Ivy Bridge, that you can even play games at a decent 30 fps and over frame-rate at a resolution of 1366x768. Where do you think that leaves entry-level discrete graphics cards?

While hardcore gamers will definitely go for dedicated graphics cards - as they have enough raw horsepower than that found on the integrated graphics on the processor-the future seems really bleak for entry level GPUs. First of all, these entry level GPUs are pathetic at gaming at higher resolutions and secondly, the advantages such as flawless HD playback are easily gained on the IGP. In fact, Intel's Quick Sync video feature puts most of the entry level GPUs out of the water, when it comes to tasks such as transcoding videos.

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CRT Monitors

Cathode ray tube monitors – those bulky heavy monitors which occupied considerable space on your desktops – are on their way out, slowly but surely. According to a CyberMedia Research report, monitor manufacturers are pushing forth the LED backlit LCD monitors which has given a 59 percent increase in sales over just plain LCD monitors. Visit any local



Entry level graphics cards

website for buying monitors, and rarely will you come across any listing for CRT monitors. LCD monitors, which succeded CRT monitors, are on a decline, so surely CRT monitors are in a much worse state. Mind you, India being a country where we literally tend to squeeze the juice out of our gadgets and continue to use them for eternity, you will still find CRT monitors in use in most small offices. Although in places where real estate comes at a premium, LCD monitors are more practical than CRT monitors. Moreover, the prices of LCD and even LED backlit LCD monitors have come down to such an extent that buyers these days do not think twice before going for such monitors over their analogue counterparts. So CRT monitors which were the de facto standard for monitors just 5 years back, are on the path to oblivion sooner rather than later.

Consumer Video Cameras

This category just like the entry level graphics card, has been made redundant thanks to HD video recording capaxbility available on phones as well as every other point and shoot camera on the market. There are no numbers available for the Indian market as far as consumer video cameras go, but a study done by the NPD group in the US market found out that camcorder sales had dropped by a whopping 42.5 per cent in the 2011 holiday season. That is a massive number and indicative of the decline as far as the entry level consumer camera category goes. Sure dedicated camcorders offer better optical zoom, better video processing features, etc. but smartphones these days are capable of HD recording. There is a very niche segment who will shoot only videos for longer durations. Most of the video recording an average user will do will involve recording special moments, which can easily be shot on smartphones. Another advantage smartphones have is the ability to quickly upload these videos from the phone itself.

Other device which is less bulky and can shoot videos apart from taking good photographs are digital still point and shoot cameras. Take even the most entry-level point and shoot camera, it will have a 720p recording facility at the very least.

With camera technologies in smartphone and point and shoot cameras getting better by the day, the era of handheld camcorders is on a definite decline.

CD/DVD drives

There was a time when CD writers were a rage as it allowed you to burn 650 MegaBytes of data onto one drive. Back then 650MB was a huge step-up from the measely 1.44MB you got on a floppy drive. Succeeding the CD drives we had the DVD drives which gave a capacity of 4.7GB as a single layer DVD and aobut 8GB as a dual-layer DVD. Cut to today, when you can get a branded compact 16GB pen drive, which can easily fit in your jeans' pocket, for a mere Rs. 500. So for transferring data CD and DVD drives are for all practical purposes, dead. Probably the only time you will use your DVD drive is when you want to access the exclusive content on our DVD drives. You may ask, why Digit supplies DVDs in that case. Well our response to that is (a) the cost factor, DVDs are still cheaper than pen drives when it comes to large volumes and (b) we have heavy software in the DVD, which is easier to send across to readers, some of whom may not have high speed internet connection. The only optical media that is seeing a growth globally right now is Blu-ray drives.

ARE THESE COMPANIES DYING AS WELL?

Five years ago these two companies were giants in their own right, but off late, they just seem to have become a shadow of their former glorious selves.

Research In Motion: When they came out with the BlackBerry and the proprietary email service, they had the mobile world in their palms, literally so for their users. But starting the end of last year, RIM is on a declining curve. The last major OS launched by BlackBerry was OS 7, sometime last year at this time and the next upgrade called BB 10 OS will be seen on devices at the end of this year. That is huge gap between OS upgrades, specially when Android and Apple come out with OS updates quite regularly. Another Achilles heel is that current BB users will not be able to upgrade to the newest OS. According to IDC, the global share of BlackBerry phones has dipped from 19 per cent in Q3 2009 to 15.3 per cent in Q3 2010 to a single-digit 6.7 per cent in Q1 2012. Need we say more?

Yahoo!: The former web star has been in the news off late for all the wrong reasons. We cannot exactly pinpoint to what event led to the decline, but two years back there was a huge uproar over Yahoo! laying off over 500 employees. Yahoo! had bought social bookmarking site Delicious and the photo sharing site Flickr even before Facebook became mainstream, but failed to see where the social web was headed. Flickr was an ace photo-sharing service, but right now Facebook is where people share photos on the web and in the mobile space Instagram (also a Facebook property) is the clear winner. In the search space Google dominates followed by Bing. In terms of ad sales, Yahoo is seeing a constant decline – just a minor 13.5 per cent compared to a 66.5 per cent share of Google (comScore April 2012 figures). Things are looking quite dire for this yesteryear search giant.

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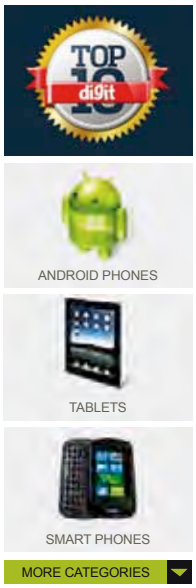
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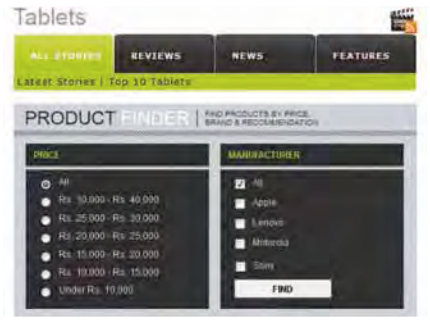
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SLICK USER INTERFACE

The new site sports an intuitive user interface by incorporating multi-level navigation panes, search filters and tools like product finders to ensure a smooth user exprerience.

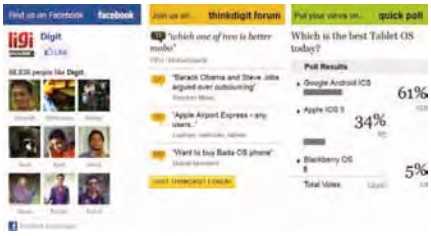




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SOCIAL CONNECT



Meet the real web killer: You!

Sensational headlines have a way of attracting your attention, don't they?



Siddharth Parwatay
siddharth.parwatay@thinkdigit.com

Sensational headlines have a way of attracting your attention, don't they? You eye them with disbelief followed by skepticism but your curiosity is piqued nonetheless. After the initial gambit these articles go on to sometimes state the obvious and most often evoke ire from the reader for their flawed assumptions or factual misinterpretations. Still, they make for some very interesting reading.

In what seems like just yesterday Wired Magazine made its own sensational claim - "The Web is dead". Of course when we say yesterday it's all relative here at Digit. Yesterday can lie anywhere between the the actual yesterday to about two years ago. In this case it's more like late 2010!

So on what basis did Wired ring the web's deathknell? Wired's premise was simple - the browser is no longer the center of your digital consumption universe. Their contention is that most people access their daily dose of bits and bytes via customised experience centers called apps. So people are still using the internet (i.e the infrastructure of interconnected networks) but not the web (defined strictly as the packets of html data that go over the http protocol on port 80). To support their claim Wired had a nicely drawn graph depicting the proportions of various types of data usage over the internet. Email, P2P, FTP, and Web traffic was shown dwindown while video was on the rise.

The trouble here was that this was data traffic - the sum total of giga and terabytes of transfers that have happened. Here is the flaw - if you were to measure the popularity of types of content, wouldn't you measure time spent? To give you an idea, if you spent the entire day reading only articles on thinkdigit.com you would probably end up using as much data as watching a lolcat video on YouTube. So to sum it up while Wired made a very pertinent observation of a growing trend, their headline claim is hyperbole.

Ok now what about our little cracker of a headline? To get to who the culprit is, we need to first figure out whether the web is indeed dead. Well, our point is that the web as you know it is dead. Kaput, poof, gone, dust! To understand why, let's delve into how the old web functioned.

Back in the day (which was not too far back) individuals such as yourself or entities like companies that needed to establish a presence online did so by owning a you have the know how (not rocket science) you could host your own web server or you could have a web hosting service host your website for you. On this piece of digital real estate that you actually own, you could pretty much do what you wanted, barring a few laws and conventions. You can have a design that you like, deploy a software that suits you. If you don't like the service you can always pack up your data move to another host.

How did your site get traffic? The same rules of the old internet - search engines, linkbacks, real world advertising, and word of word of mouth. This model however began to change slowly over the past couple of years with the advent of social networking. With social networking came this culture of sharing. Networks started to have an unbelievable influence on the web in terms of content discovery. Facebook, Google+, Twitter all have now becomes continents on the web. Many upcoming businesses have begun to

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entirely skip the stage of setting up their own website. Instead they're setting up a "page" on Facebook in order to eke out a presence on the web. Bands go to Soundcloud, most influencers hive together on Twitter, important discussions around technology and startups happen on Quora and so on...

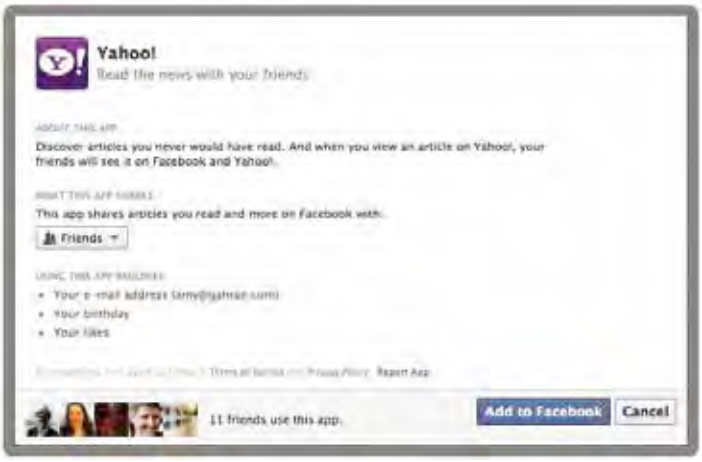
Everything is a platform or ecosystem these days. You are given access to them for free, you can roam about within the confines of their universe but users who establish their presence on them are mere tenants not owners. You can pack up and leave but that would just mean banishing yourself to isolation. How did these big web monstrosities come about owning so much of your existence?

In an open market, ideas and in turn businesses follow a pattern - invention > proliferation > adoption > multiple players > consolidation and control. Take the case of ISPs in our very own (and relatively controlled) economy. Back when broadband started remember the hundreds (if not thousands) of small ISPs that mushroomed? Now the industry is pretty much in a hands of a few players. With social networks after much experimentation - multiple Orkuts, Hi5s, and MySpaces later - users have settled on a few services. What is the pageviews distribution like of these big web companies? A staggering 34 percent of all page views on the web are controlled by the top 10 domains of the world - many of which are social networks. So what is so wrong with gravitating towards platforms to establish your web presence?

Lots of things....

Data mongering

It's no secret that Facebook's crazy valuation at the recent IPO was based on the fact that they have close to 900 million users. The content that these users create and the data that Facebook collects about Users, makes up the assets side of Facebook's balance sheet. In fact some time ago the Wall Street Journal revealed a rather disturbing finding. Those little Facebook like buttons can track your activities across web pages even when you've not clicked them. As long as there is a Facebook like button on a web page you're logged in (who doesn't have a tab open with Facebook these days) it can record your activity to your account. No wonder those ads next to your timeline seem uncannily relevant right? Tracking is something Google engages in too - it's the basis of their mainstay.



No I do not want to jump through hoops just to follow a link

Being platforms, networks like Facebook can host apps. The risks of installing dubious apps is well known but through OpenGraph apps now have the ability to call on each other for user's private data. For example, an IPL fantasy league app can tell a merchandising app that you've constantly bet on Mumbai Indians so you may want a jersey. Facebook say these and other OpenGraph implementations will help in frictionless sharing. Sure they will...

You can check out but can't ever leave

Apart from harvesting your data, the promise of the open web is under threat from another peculiar behavioral pattern that is emerging thanks to these days. For some people Google is synonymous with the web. "I saw it on Google", they'll say. What they actually mean is that "Google led me to it". But honestly with cached screenshots and easily readable previews (not any more) there was a foreseeable scenario where you wouldn't have to leave Google at all.

Now let's look at the other web juggernaut, Facebook. On one of your many daily timeline sojourns, say you see an interesting link shared by a friend. It's an article on Yahoo news, you click it and instead of leading you to the article it throws up a notification for some news reader app. Now those of us who are averse to this sort of enforced installing of software follow this method: Highlight article title, ctrl + c, open new tab, and search on Google. The workaround notwithstanding, the idea here is to not let the user leave the Facebook environment.

Twitter and its numerous clients also pull in and embed rich content from publishers. Soon enough you won't even have to click on those links within tweets to venture outside twitter. Back when the first citizens of web (read:Americans) started logging on through their dialup AOL connections, they never had access to the open web. But soon enough those walls had to be torn down. Early netizens rebelled against the idea of any entity that forced a curated experience down their collective throats. Why then does this second generation of web babies seem so happy scurrying about within the confines of Facebook and Twitter?

Hyperlinks are the neural network of the web. Breaking them with closed apps will surely lead to an online palsy of sorts. You as a user are guilty of being happy being content in these walled gardens. You have helped changed the ethos of an essentially open system. Today thanks to you the web now stands for something that it never was: a rigid and controlled environment.

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PC boot time issues, ROM suggestions, Internet bill woes and more...

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PC takes ages to boot

I had Windows 7 64 bit OS installed in my PC recently having 4 GB of RAM, 320 GB hard drive and an Intel Core-2-Quad 2.33 GHz processor. Earlier, it had XP installed. After I installed Windows 7, a strange problem crept up - it takes approximately 10 minutes for my PC to show the desktop. After that everything is quite normal.

I cannot get to the root of the problem. I would be grateful if you can please help me out.

Samiran

It seems like many applications are set to run on startup, which may be slowing down the boot. Open your start menu and type 'msconfig'. Go to the startup tab, and uncheck any processes that do not need to be started on boot, such as Adobe Flash Update, Google Updater or Adobe Reader. If you're unsure of what a particular process is, leave it alone. Additionally, try Soluto, a Windows application that can optimise your boot performance by delaying/disabling certain apps.

Moving apps to SD Card

I bought a new Android ICS Tablet. I'm stuck trying to figure this out. I've 4GB internal SD Memory, but I can't figure out how to move Android apps to the external MicroSD Card. The only place I see the external SD card show up is under settings. Right now it says I have 29.92 GB available. It is basically empty. I've tried a couple of programs like App to SD Pro, and a few others, but they are always showing the internal 4 GB SD Card as an external. I can move apps to that (Internal) SD card only, but not the external SD card I put in the slot. How to get these programs to run /move to the true external SD card? What is the use of expandable memory? I searched all the Android Forums but didn't get a good enough answer. Hope you can explain this to me.

Mohamed Bilal

There are two kinds of storage on Android devices - the internal memory which is fixed, and the external (SD card) memory, which is expandable. Apps that have widgets or require access to Android accounts reside on the internal memory. Android will automatically install the app on the SD card if the developer supports it. In order to forcefully move an app to the external SD card, you will need to root your tablet, and use an app like Titanium Backup Pro to move it to the SD card. Be warned though, that rooting is a risky procedure, and some apps may stop working after moving them to the SD card. The external memory can be used for storing your photos, videos and music files.



Ext2Read lets you view the contents of your Ubuntu partition on Windows

Need ROM suggestions

I have recently rooted my Samsung Galaxy mini/pop GTS 5570. I want my phone to detect ad hoc. Is there any stable custom ROM with this feature. Also suggest best free apps for backing up stock ROM and suggest some custom ROM with best lock screens.

Rajshekhar

Dear Rajshekhar,
There is a patched version of the wpa_suppplicant file on the XDA Forums that enables Ad-Hoc Networking, but it only supports the Samsung Galaxy S2 as of now. If you're on Windows, why don't you try Connectify - it's a free utility that will convert your laptop into a Wi-Fi hotspot, and you can connect to this network using your phone. Clockwork Mod and ROM Manager can backup your stock ROM, but both need root access. Titanium Backup can backup individual apps (including system apps), while Astro or ES File Explorer will backup your existing apps to your SD card as apk files. MIUI has some great lockscreens, and MILocker is an app that can bring many of them to your existing ROM.

Linux doesn't connect

I have a desktop with following configuration:

- Intel P4 3.00 GHz, 448 MB RAM, 250 GB Hard Disk.
- It has two OSes: Windows XP & Ubuntu 11.4 running simultaneously on it.





New tech for fruit ripening

Low-cost sensors developed by researchers of MIT detect and promote fruit ripening.
http://dgit.in/Ke2S4n

- I use BSNL Broadband Internet connection on XP, but I am unable to get the same on Ubuntu.

Please help me as Ubuntu 11.4 needs internet to download all essential softwares.

Dear Mihir,
Check whether you have the correct DNS on Ubuntu. Also, check your network settings, and select 'Automatic DHCP (addresses only)'. Then enter the same DNS that you're using on Windows 7. Meanwhile, we strongly recommend that you upgrade to Ubuntu 12.04 as it brings a number of performance and stability improvements over previous versions. You'll find a copy of the Ubuntu ISO in this month's DVD on Open Source and Linux.

From the Forum:

Video converter

I need to watch some movies on my DVD player. However, its lens isn't working. I wanted to convert some files to DivX and watch them through a USB device. Is there any good freeware converter for DAT/AVI to DivX format ?

Cool Buddy

Format Factory or Any Video Converter are utilities that allow you to switch between popular formats. If you're looking for a cross platform alternative, Handbrake does a very good job with some handy presets.

My internet bills!

Is there a software where I can manage my data consumption by dividing the bandwidth into 8 GB during day and 15 GB during the night?

Manishjha18

DuMeter is a paid software that can do the job, while NetWorxx is the best free software which caters to your need.

Topgear

BSOD

I have recently bought NVIDIA GTX 560. My specs are

- Intel core i5
- ATX 450W power supply
- INTEL DH55PJ mother board
- Aoc 1600x900 LED monitor(have only VGA input)
- 4 GB RAM

The problem is when I'm playing graphics-intensive games, the system restarts without warning. After logging in again, it shows a blue screen error.

princeabhishake

The reason for your witnessing a BSOD could be due to a Power Supply Unit (PSU), which may be insufficient for your gaming needs. Replace it with something more powerful, such as the Corsair CX500V2, or Corsair GS600.

d6bmg

Online store

I have two old Samsung IDE drives (40GB and 80GB) with stuff in it, and I no longer have a PC. Is there any way in which I can access the data in it by a USB converter or something?

Any suggestions as to from where I can buy them like an online store or a place in Bangalore?

aaruni

You can buy a USB hard drive adapter, which is essentially a USB to Serial ATA converter. Plug in your old hard drive and the other end into your USB drive on a computer, and you should be able to access all of your data. It should be available at any computer hardware store.

Feeling sleepy

I have a Sony Vaio laptop with Windows 7 Home Basic 64 bit. Whenever I turn my laptop off, it shows me a blue screen and turns back on immediately. So in a way it never shuts down, and I need to put my laptop in sleep or hibernate mode. What should i do?

abhilashthobias

Go to the Device Manager and check the properties of Devices like Network Adapter, Mouse, Modem, (any device with a power management tab) and verify that the box labelled "Allow computer to power of this device" is checked. Additionally, run sfc.exe /scannow to replace any problem files.

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Mr. Vedprakash Sharma	CCIE(R&S)#35027
Mr Naveen Kumar H	CCIE(R&S)#34903
Mr Anand Kumar G M	CCIE(R&S)#34629
Mr Shashank Singh	CCIE(R&S)#34290
Mr Shiv Shukla	CCIE(R&S)#34286
Mr Cenoj C Joy	CCIE(R&S)#34225
Mr Gokul Varma Konduru	CCIE(R&S)#33920
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This smartphone features song scanning and matching as well as 50GB free online Dropbox storage **http://dgit.in/IrcAhI**

30-minute expert: SparkleShare

SparkleShare bridges the gap between a synchronization service and code hosting sites

Kshitij Sobti
readersletters@tbinkdigit.com

SparkleShare is an Open Source file synchronisation software that builds on the power of Git. Unlike services such as Dropbox, it can work with any hosting service for Git.

You may be wondering what all the fuss around Git and GitHub is about. What are these magical tools and services? Let us tell you.

Git and Revision Control

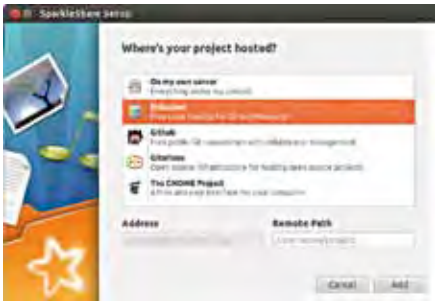
Git is a revision control system, an open source developer tool for managing software code and collaborating with a large number of people. First and foremost, such software allow developers to maintain a history of all the changes made to all files. At any time, you can browse previous snapshots of the code and revert changes. It also provides tools to manage the kind of conflicts that arise when multiple people change the same files.

Sounds cool, doesn't it? While there's nothing stopping you from using it to work with your documents and other data, it could be daunting for non-developers. After all, these tools are designed by developers, for developers.

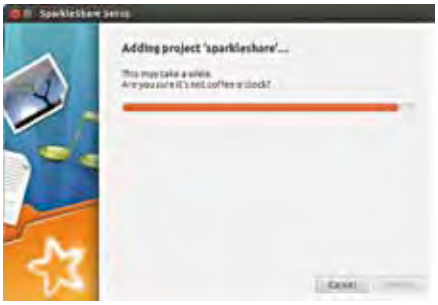
It could work well as a backend for syncing, if each step of the process didn't need to be done manually via command line. This is where SparkleShare comes in by automating the whole process.

Sync, Revision and SparkleShare

SparkleShare offers a unique mixture of file versioning and syncing. It uses the power of Git to store multiple revisions of your files, and can use services such as GitHub for storage. You can even host your own Git server for maximum control over your own data. SparkleShare automatically takes a snapshot of your files when it detects changes and uploads it to the server. If you have two computers linked to the same repository, it will keep both of them in sync. When files on one computer are updated, the other computers are notified, and their copies are updated. For this, it uses a service hosted by SparkleShare, but you can use your own.



SparkleShare takes a few minutes to synchronize for the first time, especially if the repository isn't empty



Adding a new repository to SparkleShare. Set it up on the hosting site first



Any Git hosting service should offer this feature. The interface and location might differ though

Setting up SparkleShare

This is all well and good but you probably want to start using SparkleShare today. Don't worry, you'll be running it soon enough.

For Windows / Mac OSX, the builds of SparkleShare are available on its GitHub page (the Windows version is also included in the DVD). For Linux users, chances are that it's available via your distro's package manager. To sync your files, you need to be signed up on GitHub, BitBucket or some other source code hosting web service. On whatever service use, create a new repository for your files.

For the purpose of security, SparkleShare generates a key — you can think of this as a long password — that it will use to authenticate. The BitBucket / other hosting service needs to be told what this key is. You can find this key in the SparkleShare folder in your home directory (C:\Users\UserName\SparkleShare\ on Windows). It will be a text file named something like "UserName's key.txt". Open it and copy its contents.

On your hosting service, look for "SSH keys" or something similar in your account configuration panel. Add a new key and paste the contents of the above mentioned file. Now you can start adding repositories to SparkleShare!

Click on the SparkleShare icon and click on "Add Hosted Project..." In the wizard that pops up, select the hosting service you're using and enter the details it asks for. Click "Add", wait for a few minutes, and voila! You now have a folder that's fully synced and maintains a history of every change ever made to it. You can browse the changes and download older versions of the files from the service's web site.

Perhaps SparkleShare isn't the easiest sync software to set up, but once it's set up using it is effortless. It is still in active development, and will surely improve in the future.

ANDROID 4.0

The release of Android 4.0 code named "Ice Cream Sandwich" has been a tremendous leap for the Google mobile platform tying up the tablet and smart phone OSes into one system. Here are a few tips to get the best out of this amazing platform.



The revolutionary Android 4.0 "Ice Cream Sandwich"

Android 4.0 33
Photoshop Express 34
Pinterest 35
Springpad 3.0 37
Google Drive 38
Ubuntu 12.04 39
Gimp 2.8 40

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.

Taking a screenshot has never been simpler

Astonishingly, the simple screenshot feature had been left out of the earlier versions of Android below 2.3. You had to use other third-party apps to be able to take a snapshot of your screen. But now, simply pressing the Volume Down and Power Button together lets you take a screenshot which is directly saved to your gallery.



Taking a screenshot on Android 4.0

Uninstalling apps from the app drawer

Ice Cream Sandwich lets you remove apps from your system directly from the app drawer. Simply press and hold the app icon and move it to the uninstall tab which is at the top of your screen. Nice and easy.



The Uninstall tab displayed in the app drawer

Simply swipe the screen to call and text

This is a simple and basic trick from older versions of Android, but may not be obvious to new users. Even a few experienced users might have missed it. On the text message thread or contacts or logs and groups you can now simply swipe your finger over a contact towards the left to send a text or to the right to call that particular contact. Again, very convenient.

Facial Recognition and Phone Unlock

One of the most advertised new features of the Android 4.0 platform is the Facial recognition technology which can now be used for unlocking your phone. In the latest upgrades of the OS, there are additional features to make the recognition simpler and faster. Simply go to Settings > Security > Improve face matching. If you do this for a few times you can have improved speed and accuracy. Another tip would be to have different angles for the shots of your head for greater accuracy.



Face Unlock feature in the new Android 4.0

Getting locked out

In case you use the pattern lock feature on the Android, it's easy to get locked out of your phone due to consecutive pattern errors. And chances are that you forget this pattern. Most Android users already know this but it's worth a mention; if you forget your pattern code and try a wrong pattern for more than five times, your phone will get locked. A button – "forgot pattern" will then appear on the screen, and pressing that will let you enter your Google login information to get back into your phone. So be sure to assign your Google login info to your phone.

Removing shortcuts to apps on the homescreen

A lot of the users find the Android Market feature of putting an app shortcut on the homescreen after it's downloaded very annoying.

To turn it off open the Market Application and go to Settings and uncheck the option for Auto-add Shortcuts.

Close apps by swiping across the screen

A new and innovative feature in Ice Cream Sandwich is the ability to close apps that are still running in the background directly. Pressing the multi-task button on your phone shows you the currently running apps in the form of a list. You can close them by using the "x" on the screen, but in case you didn't know you can also do it by literally throwing out the app



The currently running apps screen looks like this



Bookmarks and History

from the screen by swiping over it. You can also do this with notifications; just swipe away once you've read a notification, and it's gone from your screen.

Put your Wi-Fi on auto and save battery

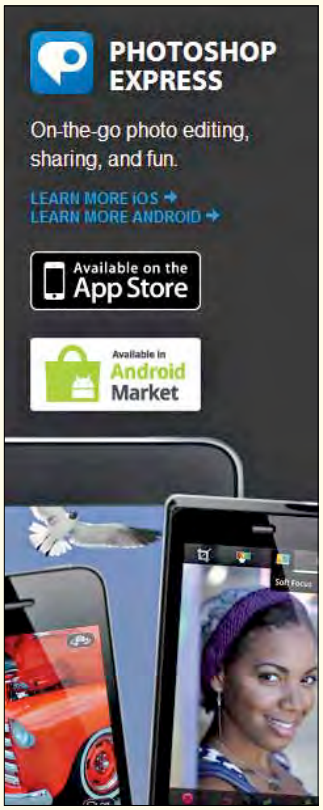
Wi-Fi usage literally sucks out the battery from your mobile device. Even other features such as Bluetooth and GPS are partners in crime. Android 4.0 comes with a handy feature for turning these battery eaters off whenever the phone is sleeping and lets you save battery when you're not using your phone. Enable this feature from `Settings > WiFi > Advanced`.

More functionalities

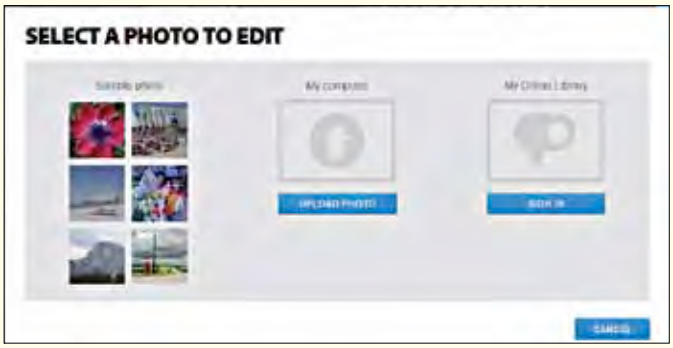
Rotating your device will not reorient the screen by itself but tapping the screen after doing that lets you flip it to re-adjust. While browsing the internet on the default Android browser, simply holding the back button lets you see the history and bookmarks you've saved. Zooming into and out of maps is not like it used to be. Double-tapping on the map with one finger lets you zoom in to a map and a two-finger single tap lets you zoom out of it.

PHOTOSHOP EXPRESS

With more and more pictures being taken right from our mobile devices, additional features and apps for editing and sharing pictures come out every day. Photoshop Express is a step in that direction. It's the famous Photoshop on a smaller more accessible level.



Photoshop Express App available on various platforms



The web app online on http://www.photoshop.com/tools/expresseditor

Basic functions right through the web app

Now you don't need a paid version of the heavy resource-centric Photoshop client to edit your pictures to quickly crop, straighten, adjust colour or fix other small flaws. You can also add visual style with eye-catching filters, effects and borders right in your phone with the mobile apps or through the web app directly from your browser.

The Dodge and Burn tools

If there are certain areas in your photos which are either too dark or too light, you can use the Dodge and Burn brushes available in the app to change and adjust those specific areas to get the right exposure within your photos. You can select the brush size, hardness and exposure values and edit accordingly.



The Dodge and Burn tools

The Crystallize feature

You can now use filters and artistic effects like crystallize on your images. The Crystallize effect on your photo gives it a very striking appearance similar to that of a stained glass. This is an amazing effect to use on images which have a variety of different bright colours.



The crystallize feature in Photoshop Express

Pop colour

The pop colour option lets you produce very clear amazing eye-popping images. You can use Pop Color to change any photo focused on a particular object with a vivid splash of colour on it and a black and white background. You can choose which part of the photo you'd like to highlight with colour and even

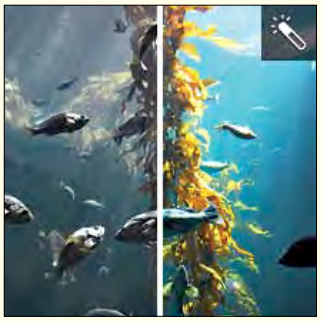


After using the Pop Colour option

control the particular colour to pop and its colour range.

Auto-correct

This is a great option to use in cases where the lighting or contrast in your pictures is a bit off. You can have your skin tones tweaked to make the people in your pictures look better. Clicking on "Auto Correct" lets you to see previews of five different adjusted versions of your shot, and you can simply choose the one you like best from these options.



The Auto-correct feature for images works like a charm



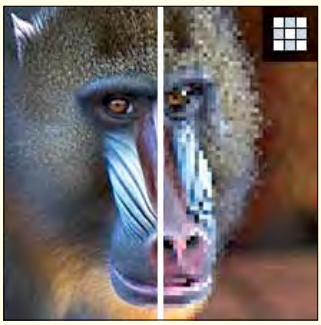
Reduce noise in your images



Placing captions and speech bubbles in images

Pixelate effect

You can play around with your images and give them a cutting-edge, digital feel or simply have a mosaic effect on them. The Pixelate option lets you do this and lets you transform your pictures into a grid of coloured or black and white pixels.



The Pixelate feature for fancy editing

More features

You can use the text option to easily add a caption or label on your photo and create comics or fun memes. You can also add borders and reduce noise in your images.

Photoshop Express Style Match

Explore new photography styles and express your creativity by the click of a button. You can easily apply stylistic attributes of one photo to another with the Photoshop Express Style Match, which in a way is a more simplified online version of the Photomerge Style Match tool in Photoshop Elements 9 software.



Photoshop Express Editor



Photoshop Express Style Match

Photoshop Express Organizer

The organizer is an amazing tool for organization, safekeeping and fast sharing of all your photos and videos. It lets you keep your albums private or if you want to, share them with your friends. You can also invite your friends to add to albums and post photos to your Facebook, Flickr, Picasa and Photobucket directly with just a few clicks. You can turn your socially shared albums into amazing interactive slideshows and highlight special events by clicking on an album in the Organizer and then clicking the Slideshow button.



Photoshop Express Organiser is a boon, seriously

PINTEREST

Whether you use Pinterest to promote a lifestyle, for crowdsourcing or inspiration, or as a focus group, these tips will help you enhance your experience on the visual bookmarking site. With the integration of Facebook and Flickr, sharing only got easier. You needn't worry about attribution or infringing upon copyright issues; no matter how many times a photo is repinned, the creator will receive credit. Also, at a quick glance, you can see all your boards and sort them as you please.

Protect your board from spam attacks

It's a given that we all click Accept without read the Terms of Understanding, so it's important to know that when you upload pics to Pinterest, you surrender all rights to them (though you'll be credited). So when spammers use your boards to market their wares, don't be surprised. These could be pins by others with misleading links or pinners mass following co-pinners in the hope that you'll follow back. In such a case, view the image in its full size and click the Report Pin button on the right-hand side. Clicking it will give you a pop-up screen giving you options to choose from about the kind of report you want to make. Reporting a pin helps remove the pin from public feeds.

In case it's your board that's been hijacked, there's another option on the same pop-up right at the bottom saying "Is this your intellectual prop-



If it seems too good to be true it probably is

erty?" Click it and follow the set of instructions on the page it takes you to.

How does spamming on Pinterest work anyway? Spammers pick up a trending topic and create pins associated with it. If your name is tagged on the pin, friends and followers are likely to click on the link in the pin which leads to a malicious software site. Here's what you do to protect yourself and others. Under `Settings > Notifications > Change email setting` set all of the options to ON. The last two are optional. To quickly nip an attack in the bud, set frequency to immediately. If you get an email notification saying that someone is following you, do some research on them and look at the pins on their board. Does the board title match the pins?

Prevention is better than cure, so follow these guidelines to avoid being at the receiving end of spam attacks:

- Don't click on pins that promise you free stuff (unless of course, it comes recommended by trusted friends who swear on their life about it!) or images that look like advertisements. Pinterest is ad-free so far.
- Avoid interacting with accounts with pins not linking to relevant content or pins all linking to the same source.
- Pinterest.com is the only Pinterest web site; other addresses with the name "Pinterest" are not legitimate. Stay safe.
- Look for telltale signs; are pinners' follower to following ratio skewed to be more biased towards the latter?

Market your Pins

Name your boards creatively and SEO will take care of the rest. You should know that your board name becomes the title of your page. Also, the first word of the board name goes into the meta description so get on your thinking hat.

Another thing to do would be to keep your boards more focussed on a particular type of image; say images of modified bikes in a "Modified Bikes" board rather than in an all-encompassing board with the title "Cool Things". You'll have a more engaged follower base.

Update your boards many times a day to constantly stay on your followers' news feeds. If online habits are anything to go by, the best time to update is midnoon when employees are on their breaks or late night when everybody is bound to be online checking their Facebooks.

Tools to enhance your Pinterest experience

There are web sites and extensions out there to make your Pinterest experience more fun. Take "Pin A Quote" for instance. It will allow you to convert your favourite quotes into postable images, which you can then share on Pinterest. The "ShotPin" Google Chrome extension lets you take a screenshot of any web page and share it as an online pin.

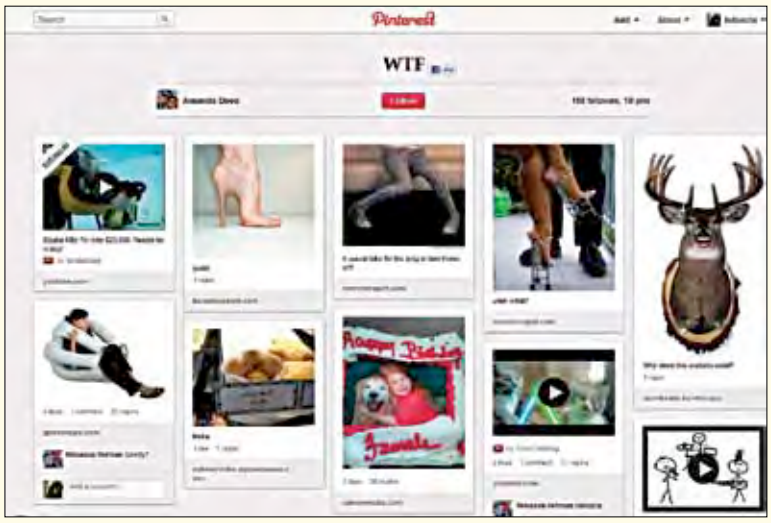
"PinPuzzle" is a third-party app that turns your boards into a mobile game. It takes photos of boards on the service and turns them into sliding puzzle games. To play the game, type in the Pinterest username of the account you want to play with. The player with the fastest speed reconstructing the pieces – which are pins from boards – is the winner. Unfortunately, at this time, the never-ending game app is only available on iOS devices at a price of $0.99.

Score more Repins

The obvious ways to get more repins of your images are by following, repinning and liking pins belonging to other users. The more comments and likes



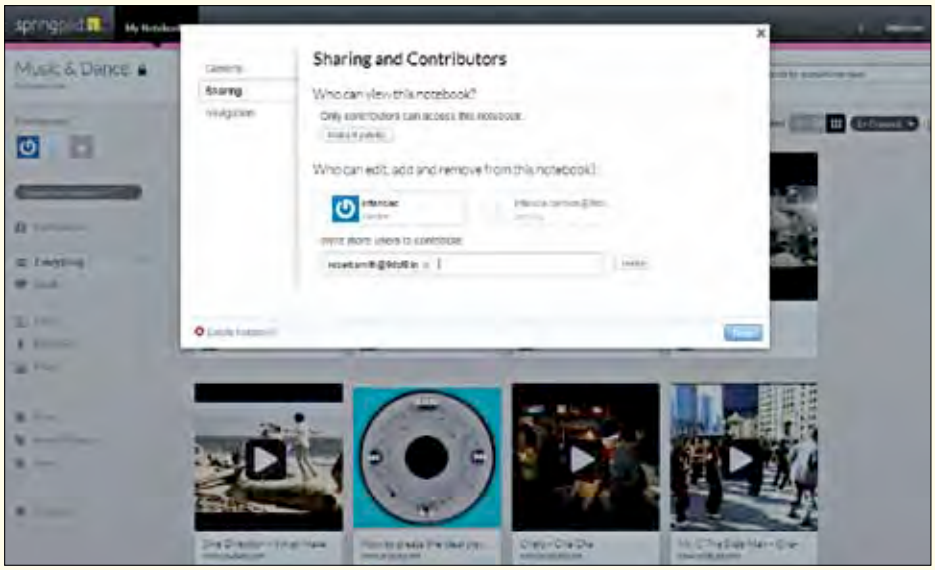
Contrary to what you've heard, Pinterest has something for everybody



You can waste hours searching for fun terms



Inside a 'Geek Me Up' board



Springpad lets you co-curate without having to make notebooks public

you get, the higher your pins show up in search results. Why would you want to do this, you ask? To market your products, of course, and get famous on Pinterest. Manage to get an influencer to follow you and you've struck gold. Lock down on trending topics and pin accordingly. Of course, it should be photos that you actually like unless you're just looking to score more repins.

Get on Pinerly, a management and analytics tool for Pinterest. Not only will you find other Pinterest users who share your interests, you'll also increase traffic to your boards thanks to back links. There's a catch though – you must refer the tool to other users to get off the wait list. If you can get one friend to sign up, you'll get a sneek peek at its dashboard, while five referrals who sign up will get you access to Pinerly.

SPRINGPAD 3.0

Initially Springpad was started as a mobile app, but in late 2011 developers made it available on computers as well syncing your files as you save them. Although Springpad is used to get things done through to-do tasks such as short-term lists and bucket lists, expense tracking, etc. its main draw is the ability to visually organise files in notebooks. Springpad does more than its touted clone Pinterest by adding heaps of contextual-based information such as business hours when you bookmark a restaurant review or enhance your bar code scans with additional information. Think of it as an intuitive personal digital assistant who gets you.

Access Springpad from anywhere

In case you don't have an app or the Spring it bookmarklet button you can conveniently save a link or make a note in one of your notebooks by sending an email to your Springpad account. Head over to `Settings > Services` and the very first option on this page will give you your personal Springpad email address to which you can send your saves. Save this to your email contacts so that it's easy to forward your notes into Springpad. All you need to do is add in a subject line saying `title` (this will become the note's title) `@notebook` (the note will be entered in the specified notebook) `#tag` You can even send in attachments. If this is a photo, it, of course, becomes top priority in the note since Springpad is a visual tool. The body of the email will go into the notebook you've assigned in the subject line. Alternatively, email springit@springpad.com from the email with which you signed up on the web site. You don't necessarily have to be saddled with this email though. It can be changed in Settings.



Visually organise your life

Shortcuts in Springpad

From anywhere in Springpad:

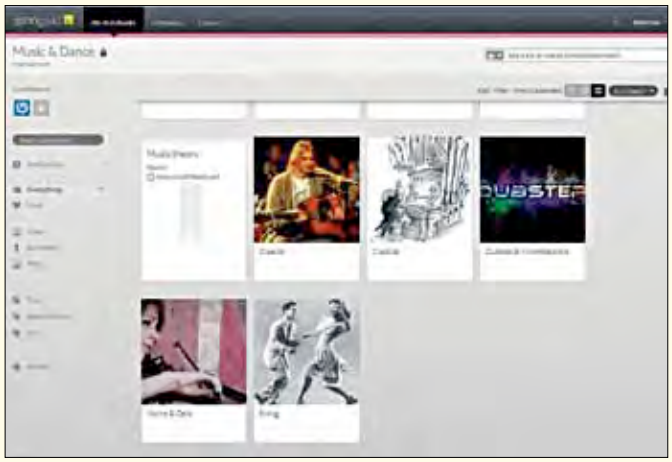
?	keyboard shortcut help
h	help (if current screen has help)
g then h	go home
g then m	go to my stuff
g then f	go to friend's stuff
n then n	create a new note
n then t	create a new task
n then l	look up a new item to add
shift + tab	quick notebook switcher

Within a notebook:

j/k	next/previous item
/	focus notebook search box
c	collapse left navigation
#	open settings dialog
+	focus the smart bar

Set alerts and stay on track

Let's say you're researching the quickest way to make money off your videogaming addiction and come across links that will keep you entertained for hours but you don't want to be distracted from the task at hand. The bookmark to this link can be send to your phone. You could spring the URL to a notebook called "Read Later" but doing that may indefinitely be postponed because let's face it, procrastination gets the better of all of us. Or you may just forget that you have such a notebook until the time you save your next URL. *Then* what do you do? Spring the link using the Springpad Browser Extension. Here you'll also have an option "Send to Phone" to receive a push notification on all of your Springpad-enabled devices. To control where you'll receive the notification, go to `Settings > Notifications` and tick/untick "My Email and phone". There's



Inside one of the custom-made notebooks in Springpad

also an option to add another email or phone where you'd like to get notifications.

A new feature that Springpad 3.0 adds is auto-alerts on price drops and offers on items you've saved in your notebook.

Back up and recover deleted files

Everything you delete in Springpad is placed in the Trash. View your trash on the web app, and even restore items that you accidentally deleted.

To back up, once logged in, go to `Settings > Services > Backup` and click "Create Backup". Once complete, you can download the HTML zipped file of your Spring data. This will contain an HTML file of all your bookmarks as well as images in a separate folder.

Collaborate with friends

If you've used previous versions of Springpad, and you often collaborate on projects with your team – be it friends or colleagues – you know how useful the new Notebook Collaboration feature is. To share a notebook with a friend or a group of friends (without having to share it with the whole world), click on the notebook in the dashboard. Inside the notebook, beside the title you'll see a lock icon. Clicking this will give you three tabs. Go to Sharing. Under "Invite more users to contribute" enter your friend's email ids or if they're on Springpad, put in their usernames.

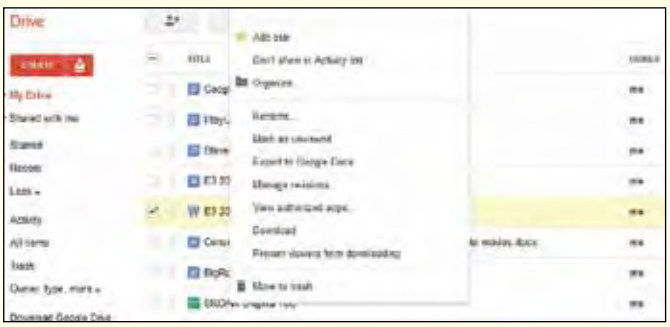
GOOGLE DRIVE

Recently, Google launched its Dropbox competitor, offering up to 5 GB of free storage space, not to mention the ability to download files and sync folders on multiple computers. Here are a few tips to help make effective use of Google Drive.

Prevent files from downloading

We all know sharing is a great collaboration feature on Google Drive (right from its Google Docs days), but how do you prevent someone from downloading the file onto their PC? It's simple.

- Open your Google Drive page in a browser window.
- Either upload a file or look for an email attachment you chose to save in Google Drive.
- Right-click on such a file for a context-sensitive menu to pop-up.
- Subsequently click on "Prevent users from downloading" option. *Note:* This feature works only with files that you've uploaded to Google Drive and not those converted to Google Docs format – for e.g. Word 2007 files, PDF documents, etc., uploaded "as is" on Google Drive.



The menu option helps prevent viewers from downloadling your files



Enabling "Send To" on right click

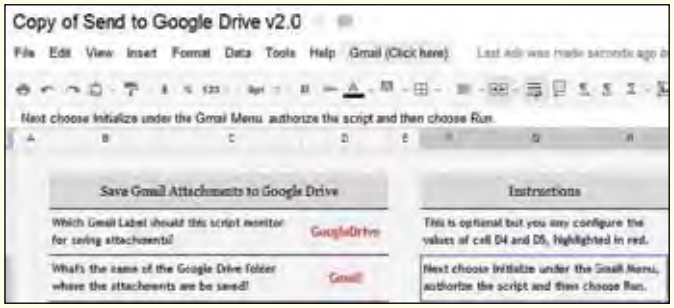
Send to Drive

If you have to transfer files from your PC onto a thumb drive, isn't right-clicking on the desired file and hitting "Send to" in the resulting pop-up the easiest way to go about it? And how great would it be to have Google Drive as an option under the "Send to" pop-up menu? Well, here's how to integrate Google Drive in the right-click context menu.

- The first step is to download and install the Google Drive software on your PC and assign a Google Drive folder that will be synced with your Google account.
- Next, access your Windows PC's "Send To" folder options. In Windows 7, you can access it by going to `C drive > Users > [User Profile] > AppData > Roaming > Microsoft > Windows > SendTo`. You can also access it by typing "%APPDATA%/Microsoft/Windows/SendTo" in `Start > Search programs and files field`.
- Now all that remains to be done is dragging and dropping the physical Google Drive folder on your PC to the "Send To" folder.
- Next time you right-click a folder and mouse-over on the "Send To" option in the pop-up menu, look for the Google Drive option at the bottom. This will make dropping files and syncing them with Google Drive a whole lot simpler.

Send Gmail attachments to drive automatically

Imagine how convenient it would be to send a Gmail attachment you're viewing on your smartphone directly to your Google Drive folder? It not only saves time, but also bandwidth. We found this amazing tip on labnol.org to do just that.



Send a Gmail attachment to Google Drive

No extensions are required and this works in both, the desktop and mobile versions of Gmail and Google Drive. Here goes:

- Open this spreadsheet (http://dgit.in/KZEBg8) in your browser. Click on the "Gmail" tab on the top of the spreadsheet to initialise the script. Authorise the script when it asks for permission. Don't worry, adding the sheet to your Google Drive doesn't compromise your Google credentials.
- Meanwhile, go to your Gmail inbox and create a new "GoogleDrive" label.
- Now go back to the spreadsheet and hit the "Gmail" tab again to run the script. If all goes well, you'll see a Success pop-up message on the bottom right of the browser window.
- A new "Gmail" folder will be created in your Google Drive page. All the forwarded attachments will be visible under this folder.
- Next time you want to ship an attachment over to Google Drive automatically, just apply the "GoogleDrive" label to that email and...nothing else, just sit back and witness the magic unfold.

UBUNTU 12.04

The latest iteration of Ubuntu is out and it's the most mature editions of the operating system till now. Precise Pangolin is an LTS release an it'll be supported till 2017 . You can get your hands on the 64-bit desktop version of the operating system in this month's Linux and FOSS DVD. Here are a few tips and tweaks to enhance your Ubuntu experience.

Tweaking Unity

With this edition of Ubuntu, Unity has evolved and has become much more stable. To tweak Unity earlier you had to edit configuration file or run convoluted commands to enable or disable certain features like global menu, whitelisting systray and overlay scrollbars. We can now these tweaks very easily by using an app called Unsettings. To get Unsettings use the following commands:

```
sudo add-apt-repository ppa:diesch/testing
sudo apt-get update
sudo apt-get install unsettings
```

The interface is fairly simple to understand you can use it to make all sorts of changes to how Unity behave. Though this is not the only app available to do that especially for Unity 2D. To tweak the behaviour of Unity 2D, you'll need to install Ubuntu Tweak, which lets you enable or disable the new HUD feature, control the multi-monitor behaviour and change how Dash is shown. Use the following commands to install Ubuntu Tweak:

```
sudo add-apt-repository ppa:tualatrix/ppa
sudo apt-get update
sudo apt-get install ubuntu-tweak
```

Unity Lenses

There are a lot of lenses around that you can use with Unity. Two of the most useful ones are the Recoll and the Calculator lense. The Recoll lense allows you to search for text inside the file, it has filters for spreadsheets, documents, text, presentations, messages built-in but it also lets you use complex queries to search in a particular path or files from particular dates using advanced queries. To install the Recoll lense use the following commands:

```
sudo add-apt-repository ppa:recoll-backports/recoll-1.15-on
sudo apt-get update
sudo apt-get install recoll-lens recoll
```

Another very interesting and powerful lense is the calculator lense which brings up the a calculator in the Dash. To install the calculator lense use the following commands:

```
sudo add-apt-repository ppa:scopes-packagers/ppa
sudo apt-get update
sudo apt-get install unity-lens-utilities unity-scope-calculator
```

There are loads of other interesting lenses available. OMG! Ubuntu! has listed an interesting collection of lenses check it out at http://goo.gl/pjTrF.

Power Saving with Jupiter

Jupiter is an amazing appindicator which helps increase your laptop/netbook's battery life. You can switch between Maximum Power, Power on Demand and Power Saving depending upon your requirements. You can also enable or disable bluetooth, wifi and touchpad through Jupiter. You can install Jupiter using the following commands:

```
sudo add-apt-repository ppa:webupd8team/jupiter
sudo apt-get update
sudo apt-get install jupiter
```

Global Menu for LibreOffice

LibreOffice for the better or for worse doesn't use the global app menu by default. It uses the traditional menus on the top of the windows. To change this you'll have to install the "lo-menubar" package to have LibreOffice use the global menu which can be obtained by running the following command.

```
sudo apt-get install lo-menubar
```



Recoll has the ability to search for text inside files

Tweaking the Startup Applications Dialog

By default all autostart items won't show up in the startup dialog box, to force all the items to appear use the following command.

```
sudo sed -i 's/NoDisplay=true/NoDisplay=false/g' /etc/xdg/autostart/*.desktop
```

Hibernate

Hibernate is no longer available in Ubuntu 12.04 by default, you can use Suspend instead. But if you're a purist and want your good ol' hibernate button back use the following command. But before we move on, a valid and a necessary question will arise in your mind which being what is the exact difference between 'suspend' and 'hibernate'? Hibernate powers everything down and stores the entire content of the RAM in the hard disk, thus it saves a lot of power which is important for laptops and netbooks. Suspends powers down everything except RAM and it still consumes power. Before going all out and enabling hibernating, first you must ascertain whether your computer supports hibernate or not you can do this by running the following command

```
sudo pm-hibernate
```

Your computer will shutdown after this. When you turn it back on, you should get back all the applications back as they are. If this is successful, it means your computer supports hibernate. Now go ahead and run the following command

```
gksu gedit /etc/polkit-1/localauthority/50-local.d/com.ubuntu.enable-hibernate.pkla
```

Add the following lines to the file that just opened

```
[Re-enable hibernate by default]
Identity=unix-user:*
Action=org.freedesktop.upower.hibernate
ResultActive=yes
```

Save the file and exit. Now log off and log back in. The power menu should now start showing the "Hibernate" option.

Restricted packages

Ubuntu ships only with completely free software by default that means certain proprietary media codecs will not work out-of-box. Ubuntu does and can play most of the proprietary media formats out there like DVD, MP3, Quicktime and many more. To enable the media formats use the following command in your terminal or search for 'restricted' in the Ubuntu Software Center.

```
sudo apt-get install ubuntu-restricted-extras
```

GIMP 2.8

Gimp 2.8 is out and about, that too after three very long years of hard work. It includes many new features including some which were highly requested by the community. Here are a few tips and tricks which will make your life with Gimp easier.

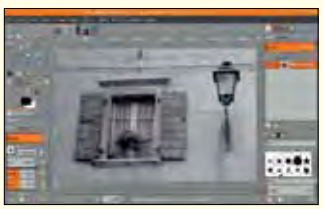
Installing Gimp 2.8

Compiling Gimp is a real pain in the behind. The dependencies will keep you reeling and they keep on coming in droves. A better way is to use an unofficial Gimp 2.8 PPA which will make installing Gimp in Ubuntu a breeze. Run the following commands in the terminal:

```
sudo add-apt-repository ppa:otto-kesselgulasch/gimp
sudo apt-get update
sudo apt-get install gimp
```

Single window!

If you had opened the previous versions of Gimp, you would've seen all the panels as separate windows on the screen. Perhaps the most requested feature on the community. You can toggle the single window feature by checking the Single-window checkbox in the Windows menu.



Gimp 2.8 comes with a single-window feature

Save and Export

Perhaps the most radical changes of all, you can now only save files in Gimp's native XCF format, which will save all the extra information about the work in progress. To export and in essence save the image in different format you'll have to export the image using the Export command which can be accessed from File->Export... One of the main benefits of this separation of concerns is that all those annoying pop-ups which came when saving in a different format have been got ridden off.

Layer Groups

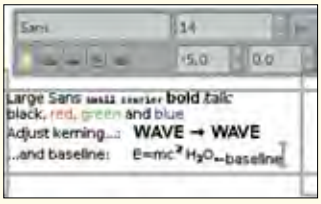
It used to be excruciating to handle a file with anything more than 100 layers in earlier versions of Gimp. Layer groups are something that we take for granted in Photoshop, this feature is introduced in this version. You can now group layers which organize the layers in a tree like structure. The best part is that the Layer Groups can be accessed through the Gimp API and used to code plugins.

On-canvas Text Editing

Perhaps the best possible enhancement, this is something that was absolutely needed. Earlier users had to type the text in a separate window, applying effects and then hit apply to see the changes on the canvas. With this version of Gimp, you can edit the text directly on the canvas itself. And boy, does it work well or what: apart from the usual editing features in other image editing programs (read, Photoshop) like font family, size and style you also get the ability to use a combination of Alt and arrow keys to change the baseline and kerning of the font.

Maths in Gimp

A very nifty addition this when making objects on the canvas



You can now organize layers into groups

using the size entry widget to input the values of x, y, width and height. You can now use math equations here, very logical and straightforward. For example, in the scale dialog it is now possible to write '50%' in the Width field to scale the image to 50% of the width. Expressions such as '30in + 40px' and '4 * 5.4in' work, too.

Cage Transform

An innovative approach to free transformation this tool was developed during the Google Summer of Code 2010. The tool makes it possible to easily warp parts of objects using an adjustable user-defined polygonal frame.



Cage Transform in action

A few others that deserve a mentions

You can now directly align text to a path through the context menu. You can now export your palette for CSS, PHP, Python, txt and Java, this can be accessed through the palette context menu. GIMP 2.8 also further enhances its scripting abilities. For example, API changes to support layer groups have been made. The API has been refactored to make it easy to develop new scripts.

worldview

OUR PICK OF THE BEST TECH ARTICLES FROM AROUND THE GLOBE

(MUST READS)



APP DEVELOPMENT: LIKE A BOSS

Want to develop apps for smartphones but don't have the time for the intricacies of programming? MIT's initiative, the App Inventor is here to help you out.
http://dgit.in/MDQZYh

TO-DO LISTS AND INVENTORIES OF GREAT ARTISTS

We're constantly on the lookout for the best productivity tool that will help us manage our to-do list better. Take a sneak peak at how some of history's greatest artists including Pablo Picasso, Joseph Cornell,Willem de Kooning, Mark Rothko,Andrew Wyeth and Janice Lowry managed theirs.
http://dgit.in/JtVo07



OTIXO IS A DASHBOARD FOR ALL YOUR CLOUD SERVICES

Do you have cloud storage strewn across multiple accounts like Dropbox, SugarSync, Box, Google Drive, Windows SkyDrive etc? View and edit your files from one convenient place with Otixo's web-app.
http://dgit.in/K7VpF1

(ArsTechnica Corner)

COOLEST SCIENCE-RELATED IT JOBS



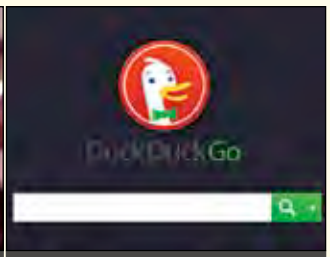
So you thought IT management was a routine, boring job? Here is a look at some really cool IT management jobs in fields as diverse as genome-mapping, space exploration to ancient manuscripts preservation. http://dgit.in/KX2K7S



Bandwidth limit in office?
This feature analyses how the bandwidth in the office is more a subject of a need than want. It takes into account how bandwidth per user changes while using email, cloud apps, while streaming videos, etc.
http://dgit.in/KdEnW1



Protection against stalkers
ArsTechnica, in this wonderfully exhaustive piece gives Android users pointers on how they can protect their smartphones from becoming tools to help stalkers. It touches upon account recovery, checking for roots, checking for unfamiliar apps, among other things.
http://dgit.in/JulKuh



Search engines not tracking users?
Tracking users has become a requirement for search engines to give personalised results. ArsTechnica features two search engines - DuckDuckGo and Ixquick - which claim not to log IP addresses.
http://dgit.in/Ld4fl1

SHORTS

HOW YAHOO RANG FLICKR'S DEATH KNELL

A contemplative look back on Flickr's early days, its failed marriage with Yahoo, and what should've been more than just a photo-sharing product. A good read with some interesting perspective on Flickr and Yahoo.
http://dgit.in/Lc2Ur4

PRIVACY ON GOOGLE, FACEBOOK



Trying Google and Facebook's services may be immensely convenient and popular, but ever wondered how much do they actually know about you? One journalist tried, here's his revelation.
http://dgit.in/Kwl8nb

ULTIMATE GESTURE CONTROL DEVICE

The best motion control device till date. That's what Leap Motion's iPod touch-like gadget is being hailed as, allowing 3D motion control through gestures with an insanely high accuracy rate. It costs just US $70!!
http://dgit.in/K7XTDf

ARE WE REALLY CONTROLLED ONLY BY OUR BRAIN?



That's what we grew up learning, didn't we? Enter the mysterious world of neuroscience and two experts' debate about how there could be more to this answer.
http://dgit.in/MDXwCn

Cloud gaming is the future

A case for the future of gaming which is mainly be hosted in the cloud

- By Sebastian Anthony

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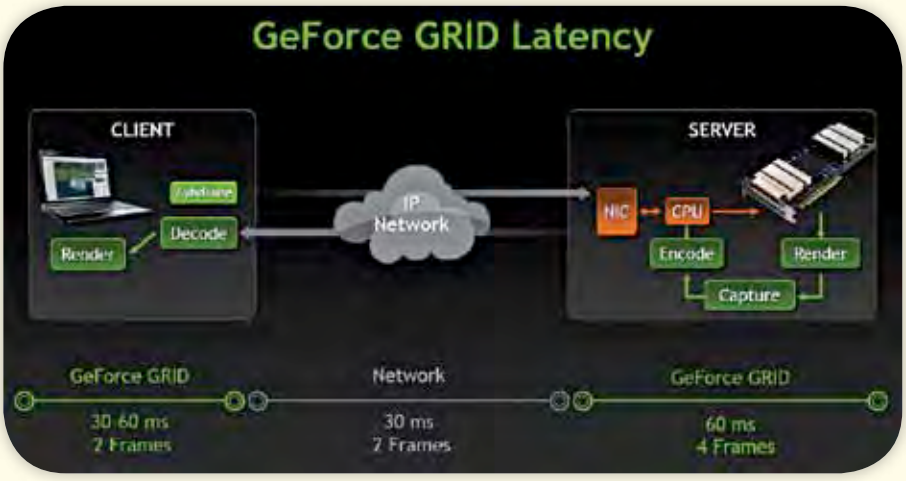
Against all the odds, and contrary to some of the world's greatest network and software engineers, OnLive has proved that cloud gaming is possible. Exact figures, as always, are hard to come by, but as of November 2011 OnLive apparently had "tens of millions" of users in the US and UK.

While no one is ever going to claim that the OnLive experience is as good as glorious can't-hear-yourself-think-over-the-GPU-fan desktop and console gaming, for many gamers it is good enough. For hardcore gamers, OnLive's 150-250ms latency and 720p resolution is akin to gouging your eyes out, but for almost everyone else — i.e. most console gamers, and almost every social gamer — it is just fine. If you haven't given cloud gaming a try, visit OnLive and sign up for a free trial; it still blows my mind that it takes just a split second to send your mouse movements to an Onlive data center, compute the next frame, render it, encode it, and send it back to you.

Bear in mind, too, that OnLive games are competitively priced — and because this is all cloud-based, you don't have to download 15GB of data before you can play (a huge boon for casual gamers), and you can play OnLive (and access your game saves) from any internet-connected computer. If all that wasn't enough, because OnLive is ultimately a software-as-a-service (SaaS) provider, it also has two more awesome offerings: For many games you can buy a 3- or 5-day pass for just a few dollars (which is often long enough to finish a game, if you're a hardcore gamer); and for $10/month, you get unlimited access to some 200 games.

In short, if the latency could be reduced and the resolution could be pumped up to 1080p, OnLive — cloud gaming — would be almost perfect. Which leads us neatly onto Nvidia's new Kepler GPU, which, according to Jen-Hsun Huang at the GPU Technology Conference yesterday, contains new virtualization and encoder tech that makes it the ideal building block for cloud gaming installations. Nvidia has taken its new Kepler GPUs and built it into what it calls the GeForce Grid, which as far as I can tell (details are scarce) is a complete cloud gaming solution. Gaikai (a cloud gaming company similar to OnLive) and Citrix are launch partners.

Currently, according to Nvidia, in OnLive and Gaikai data centers, one server is required for each gamer (or "game stream"). Each server has a single CPU and a single GPU and consumes around 150 watts — i.e. current cloud gaming setups aren't efficient in terms of space or power. With GeForce Grid, however, Nvidia squeezes four GPUs into each server, giving each server the juice to accommodate up to four users, at just 75 watts per stream. Nvidia hasn't stated which GPUs will be used in this new cloud gaming system, but the hardware specs on the Grid website suggest that they're GTX 690s with extra



YAHOO AXIS

Trying to revive their web presence, Yahoo launched a brand new web browser for iOS devices called Yahoo Axis. It provides an intuitive, visual way to find what you need, as quickly as possible, and syncs your content across the iPhone, iPad or iPod touch. On the desktop, Yahoo Axis is available as a browser plugin. http://dgit.in/JqOXeJ

MORE SPACE FOR FREE!

Dropbox recently compiled a list of ways in which a user can get free space, upto 22GB! Tasks include inviting friends, using Camera Upload to upload pictures from a mobile phone or camera, among other things. Check out Dropquest 2012 whose winner gets 1GB free space. http://dgit.in/LcMzWE

GOOGLE+ MOBILE APPS GET AN OVERHAUL



Google+ app has got an iOS and Android app update. The new version brings a new UI and better navigation. In addition, the Android app now lets you start a Hangout apart from just joining one already on as in the old version. http://dgit.in/KWXrp4

BUMP TO TRANSFER PHOTOS

Among the many ways to transfer photos, here is quite a novel one. Bump's new app for Android and iOS requires you to 'bump' the device against the computer's spacebar. It then lets you download them to your hard disk or create a shareable link. Easy peasy! http://dgit.in/Juimjh

RAM, or simply re-branded K10s (the upcoming Kepler-powered Tesla GCGPU).

Not only will the GeForce Grid be more efficient, but Nvidia is also claiming that its new system will register a huge drop in latency over existing cloud gaming installations. Take a look at the graph to the right: Yes, Kepler is so powerful that the GeForce



Grid will be a hair faster than your Xbox + TV. Keep your eye on the Kool-Aid, though: While Kepler's hardware H.264 encoder will certainly help things along, the "Game Pipeline" and "Network" improvements are peppered with caveats.

For a start, the huge reduction in game pipeline processing will only be realized if software developers actually design their games "specifically for the awesome graphics processing power that these cloud machines deliver." As it stands, game developers really don't care if an engine takes 5ms to render a frame or 15ms — it's all the same, on a local console or PC — but when we make the jump to cloud gaming, every millisecond counts. In a day and age where games are riddled with small, latency-inducing bugs, Nvidia is too optimistic on this front.

Then there's network performance. Basically, it seems like Nvidia's solution is to install so many GeForce Grid data centers that network latency never accounts for more than 10ms — either that, or it wants to roll out its own fiber infrastructure. Neither of these things are likely to happen in the near term. Nvidia has the right idea with GeForce Grid, but it's simply five years too soon.

Despite my misgivings, though, cloud gaming does have promise. Worldwide roll outs are now so rapid that in five or 10 years, a large percentage of the developed world will have fiber to the home or cabinet. It will take time, but with enough pressure from console makers and publishers, developers will eventually fine-tune their game engines, too.

What then? What will happen when there is no logical reason to keep a console in your living room? With the PS4, Xbox 720, and Wii U all coming down the line, cloud gaming isn't going to take off in the near term — but what about the next generation of consoles?

It is entirely possible that the Xbox 1080 will simply be a dumb little box, with four gamepad sockets on the front, and HDMI and power on the back; it could even be built into a Microsoft TV. Microsoft already has a huge cloud presence, too — and really, streaming games isn't all that different from streaming movies.

The appeal of cloud gaming to companies such as Microsoft and Sony is immense. In an instant, short of breaking into the local data center, software piracy goes out the window. With the expensive console out of





the way, their pool of prospective gamers (and customers) immediately swells. By default, the Xbox 1080 service might be completely free — but just like today's free-to-play games, Microsoft could charge you for additional levels and in-game items, as well as the ability to connect multiple gamepads, output at higher resolution, unlock higher framerates, and so on.

Cloud gaming is completely cross-platform, too: There's no functional difference between a PC monitor, TV, smartphone, or tablet. Imagine being able to pause a game at home, and then continue it on your tablet or office computer. Imagine multiplayer games where you're in front of the TV, but your friend is on the other side of the world, playing from a Facebook window on his laptop.

The flip side, of course, is that Microsoft (or EA) could charge you for excessive use ("you have exceeded our fair-use policy...") — and what happens if you get banned? Do you lose access to all of the games you've purchased? Will you have the option of storing saved games locally, or will they all be in the cloud?

Ultimately, though, in much the same way that cloud computing and storage has exploded in the last few years, cloud gaming will follow suit. Cloud gaming, like cloud computing, digital downloads, and streaming video, simply has too many benefits to ignore.

(worldview)

GEEKBEAT.TV

Revision 3 is one of the best web TV production houses, specially if you are a geek. But not everyone has time for the half



hour long Veronica- Belmont-hosted-Tekzilla. If you have under 10 minutes to spare but want to get your dose of geekdom, check out this website which has some really geeky news presented by the lovely Cali Lewis.
http://dgit.in/KH0img

(QR Code)

For a list of all the links from this section, head over to http://dgit.in/WorldViewJune2012
Or point your phone to the QR code above

(PRODUCT LAUNCHES)

NVIDIA GEFORCE GTX 690



NVIDIA have wasted no time in launching their flaghsip dual-GPU card - GeForce GTX 690. Housing a whopping 3072 CUDA cores and 256 texture units, its maximum TDP is 300 Watts. It comes in a premium magnesium-alloy casing, polycarbonate-windows and an LED logo. Damages? Around ₹65,000!

SAMSUNG GALAXY S III



Samsung's Galaxy line-up has got an upgrade - the Galaxy S III - expected to launch in India on May 31. The S III sports a massive 4.8-inch super AMOLED capacitive touchscreen, is powered by a 1.4GHz quad-core Cortex A9 processor with 1 GB RAM and an 8 MP camera. It will set you back by approx. ₹42,500.

LEICA M MONOCHROM



When it comes to range-finder cameras, Leica is an institution. It has come out with a dedicated mono-chrome camera called Leica M. It houses an 18 MP CCD monochrome sensor, an ISO range from 320 - 10000. It lacks and anti-aliasing filter and auto focus. Priced at a jaw-dropping ₹4.3 lakhs.

WORDJUMBLE

ABSOLUTE TIMEPASS

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

There are 20 tech terms in this grid. Find 'em all...

Top 3 YouTube Picks

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



How Linux is built?
Duration 03 min, 13 sec
Highly informative, done in an infographic style and explains how Linux is different.
http://dgit.in/KZyJo7



Krispy Kreme - The Baddest
Duration 03 min, 46 sec
What you get when you take a bunch of teenagers trying to be badass and gangsta-like.
http://dgit.in/KfrD0U



Siri versus S-Voice [6:58]
Duration 06 min, 58 sec
So just how well does S-Voice stack up against Siri? The Verge conducts a comparison.
http://dgit.in/MA1QzR

ARE YOU ONE OF INDIA'S TOP 50 TECHIES?

JOIN THE

digit Squad

All you have to do is visit
thinkdigit.com/digit-squad

81 **Killer rigs**
Build the configuration of your choice; from budget to high-end rigs. We tell you about components that matter

82 **Price watch**
Find out prices of the latest ultrabooks and compact cameras to help your buying decision

Buying the right smartphone



Helping you buy a phone, the smart way

Agent 001
agent001@thinkdigit.com

You thought buying a smartphone was easy? Apparently not! The amount of innovation we've seen over the past year has made smartphones not even 12 months old seem archaic. You're constantly acquainted with newer technologies at breakneck speed, especially when it comes to software. Apple's iOS and Google's Android are going at it hammer and tongs. Research in Motion is pulling out all stops trying to make the BlackBerry OS as slick as its rivals. In the meanwhile, Microsoft is betting big on Windows Phone 7.5. Symbian is still around, which just complicates matters for the consumer. I thought I'd make it easy for you to do your homework.

Your choices decide your fate

First off, get a fix on the budget you wish to spend. This will be the first level of shortlisting, making the second and third tasks easier. For a budget of less than ₹10,000, you'll get Android, BlackBerry and Symbian smartphones. Between ₹10,000 and ₹20,000, you'll get the whole host of Android, BlackBerry and Symbian phones, along with a few Windows Phone devices and the good old Apple iPhone 3GS. Beyond ₹20,000, the sky's the limit – you have a choice of high-end devices. Heck, if your budget allows you could even splurge on the phones in the Droolmaal section!

Once you do that, you'll have a fair idea of what's within your reach. Try out various platforms – on a friend's phone, at the nearest retailer, etc. – before narrowing down your choice. Don't go by the recommendations of just anyone, since what someone else may find comfortable may not be very impressive to you.

Below ₹20,000 is where a majority of phones are single core, so you'll have to increase your budget if dual-core is a criteria! You should get an idea of what you'll be using the phone for, which will help pinpoint the general hardware.


Apple iPhone4

Some love touch screens, while some swear by a physical keypad. Which category you fall in depends on you. It's a good idea to experience both device types, and then decide what you're comfortable with. As a general rule, anyone who sends many text messages or emails from the phone will prefer a hardware keypad, all the better if it's QWERTY.

What type are you?

The basic user

If you're anything like my dad and believe that the smartphone is still primarily a phone, with familiarity being a critical criterion, you'd be best suited off with either a Symbian smartphone or a BlackBerry. What you get with both these OSes is a UI (user interface) that's relatively similar to the previous versions, and even the versions before that – for they've been around for donkey's years! And most of these platforms come with devices having



On-the-go connection
Major operators such as Airtel, Vodafone, Idea and Aircel will soon give you uninterrupted mobile connectivity on Express trains **http://dgit.in/JiIld4**

a physical QWERTY keypad – critical for comfort. For someone who doesn't want a smartphone to be a learning curve, or isn't willing to spend time getting the hang of a newer OS, familiarity is the best option. The app ecosystem isn't very wide for Symbian and BlackBerry, but then again, we don't assume you'd be interested in downloading too many apps anyway!

The absolute geek

If you're in this category, you're the typical user who wants to tinker with the phone's software quite a bit. That'll include rooting/jail breaking (though I don't approve of or recommend it), custom software, over-clocking... the works. While these are unadvisable, as doing them creates issues with the warranty, those of you who must do it will do it! Which is why Android is the best option for you. You can get hundreds of custom ROMs on the internet that you can install on your phone. The process isn't simple, but the geeks are doing it. It can also be done with iOS, following a simpler process. But then again, with Android, you get a wider variety of phones at multiple price points.



HTC One X

The no-nonsense user

The iOS (okay, Android fanboys will probably be sharpening their knives at the moment!) offers possibly the best blend of functionality, performance and a slick user experience. If you want a phone that does everything, I suggest checking out the iPhone. With the 3GS starting at around ₹19k, the entry price barrier has come down considerably. Having said that, Android is catching up superbly with the latest ICS update. Get a phone with Android version 4.0 and you'll be sorted.

Windows Phone 7, post the Mango update, looks like a very neat package. While it is still to really catch on, we quite like the updated OS – it works well out of the box. The fact that the performance of the OS isn't lagging, even on a phone with 512 MB of RAM helps a graphic intensive, yet easy-to-navigate UI.



BlackBerry Bold Touch 9900

The business user

What you want is simplicity but you'll not compromise on features. You have the daily staple diet of emails, lots of messages, a bit of web browsing and a considerable amount of calls. Ideally, a phone with a QWERTY keypad will suit you the best – an immense help when typing those long mails and messages.

BlackBerry smartphones are possibly the benchmark, and the Nokia E-series phones are a solid alternative. You'll probably have to buy a BlackBerry if your organization demands it. The Curve series range starts at about ₹9k, while the latest Bold 9900 with an amazing touchscreen and QWERTY is available for around ₹30k.

If the email setup at your workplace isn't locked to one type of device, I suggest checking out the Nokia E-series smartphones as well, particularly the new Nokia E6 (touch + QWERTY) and the slightly ageing but still brilliant E72 to fulfill your needs.



Nokia Lumia 800

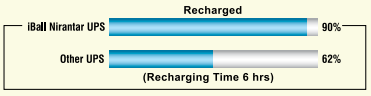
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PSP Vita sees a ghost
To be released in Japan on June 28, it will have the same features and price as the black base model **http://dgit.in/IS3ePH**

What's next for FIFA?
Here's a list of improvements you should expect from FIFA 13. We've got snapshots too **http://dgit.in/IFukF4**

Buying a customisable laptop – is Dell XPS okay?

I would like to buy a laptop with Core i7 processor in a budget of around ₹75K. I had thought about buying and customising a Dell XPS 15; but I'm still not sure whether it's a good choice and I don't want to make any mistake in haste. So please help me out soon.

Aditya Prasun

The Dell XPS 15 is a very good laptop to buy. Last year, it was one of the best laptops we tested. So if you have a brand preference for Dell, definitely go for it.

Recommending laptops from other brands, we'd suggest the HP Envy 15-3017tx which we also tested. If you manage to find it with HP resellers, you can get this for under ₹70k.



The Dell XPS

Need for speed

I want a graphics card for playing latest games such as *Modern Warfare 2 and 3, Need for Speed: The Run, Battlefield 3, Saints Row 3, etc.*

My PC configuration is as follows:

- **Processor:** Intel i3@3.10 GHz
- **Storage:** 2GB DDR3 RAM
- **Motherboard:** ASUS P8H61-MLX

My budget is ₹4,000-5,000. Please suggest the best one matching my budget.

Shib Narzary

You might have to increase your budget if you intend to game at decent resolutions as the games you've mentioned are not fun if played at anything under 1680x1050. From the AMD side you can opt for MSI R6670 (http://goo.gl/CqEPz) which comes for around ₹6,200 or the older HD 5670 which comes



MSI R6670

within your budget. From the NVIDIA side, you can get the slightly older but very good MSI GTS 450 (http://goo.gl/stIHp) for around ₹6,800. The NVIDIA card within your budget will be GT440 but it isn't exactly meant for gaming.

Laptop or PC upgrade?

I want to upgrade my desktop so that I can play games such as *COD, BattleField* etc. I currently play *CounterStrike & NFS* but it takes time to open *NFS*. Even moving a larger size file from one drive to another takes time. My budget is around ₹10,000.

My current PC configuration:

- **CPU:** Intel core2duo E4500 @2.20 GHz
- **Motherboard:** Intel DG31PR
- **RAM:** 2x2GB Transcend DD2R
- **HDD:** 1) 500GB Seagate 2) 160GB Samsung
- **Graphics**: 256MB GeForce7200GS
- **Monitor:** 19" Acer LCD "AL1916W" and normal SMPS

Also, I was thinking about buying a laptop so what do you suggest? I'm an IT Engineering student and my use is not too much – just college work and games. It should have a large screen and HD quality. My budget is ₹50,000. Should I upgrade my PC & keep a low budget for my laptop?

Savan Nagda

We suggest decreasing your laptop budget to ₹40,000 as you can get a range of laptops within that price point. Also these laptops will suffice for student usage as we're assuming you won't be running heavy applications on your system. A gaming laptop is out of the question in that budget. Some suggestions are:

- Dell Inspiron 15 R – ₹37,000 (http://goo.gl/vdThq)
- HP ProBook 4530S – ₹38,000 (http://goo.gl/OEAgs)
- Lenovo IdeaPad Z570 – ₹40,000 (http://goo.gl/mhc6C)

You can play games on your desktop. For the desktop we suggest the following configuration:

- **Processor:** AMD Phenom II x4 840 (₹5,500)
- **RAM:** Gskill F3 10600CL9S-4GBNT (₹1,200)
- **Graphics:** MSI R6670 (₹6,200)
- **PSU:** Corsair CX430 (₹4,300)
- **HDD and Monitor:** What you have is good enough as buying new parts would mean increasing your budget.

Optimus v/s Galaxy S



Right now I'm in a kind of messed up situation regarding what smartphone to buy. Basically, my requirements aren't that specific but still I have a few. It should be an Android phone and at least 4 inches touch screen. My budget is around ₹20,000. I went through a couple of phones and selected two phones that is, LG Optimus Black P970 and Samsung Galaxy S LCD I9003. But, I'm unable to decide among both of these. Besides this, please feel free to suggest any other phone worth trying out. Eagerly waiting for your reply.

Niladri Chakravarty

We would not recommend the LG Optimus Black, since we aren't very happy with the inconsistent battery life and the issue of slow performance at times. We would recommend the Sony Xperia Sola instead. What you get is a 3.7-inch display, with a 1GHz dual core processor, 5MP camera and 8GB internal memory. Currently runs on Android 2.3, but will be upgraded to ICS sometime in the next couple of months. Looks good as well!

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BASIC RIG

Processor	AMD Athlon 2 x2 260	3,300
Motherboard	GIGABYTE GA-MA78LMT-S2	2,600
RAM	Corsair Desktop RAM 2GB DDR3 1333MHz	700
HDD	WD Caviar Blue 500 GB	4,000
Monitor	BenQ G610HDAL	4,000
Graphics Card	None	-
Cabinet	Cooler Master Elite 310	1,800
PSU	FSP Saga II 400W	2,000
Speaker (2.1)	Altec Classic Audio BXR1221	1,200
Mouse	Zebronics Judwaa 5 (bundled)	-
Optical Drive	LG 22x SATA DVD Writer	950
Keyboard	Zebronics Judwaa 5 (bundled)	465
Sound Card	None	-
Total		**21,015**

HTPC

Processor	bundled	-
Motherboard	MSI E350IA-E45	10,000
RAM	Corsair 2GB DDR3 1333MHz	700
HDD	Seagate Barracuda 3 TB	10,000
Monitor	None (your TV)	-
Graphics Card	None (HD6310 onboard)	--
Cabinet	iBall Elegance	1,800
PSU	bundled (250W)	-
Speaker	None	-
Mouse	MS Wireless laser Combo XVA-00020	2,750
Keyboard	bundled	-
Optical Drive	LG 22x SATA DVD Writer	950
Sound Card	None	-
Total		**26,200**

ENTRY-LEVEL GAMING

Processor	AMD A6-3650	6,200
Motherboard	Gigabyte GA-A55M-S2H	4,500
RAM	G-skill F3-10600CL9S-4GBNT	1,200
HDD	WD Caviar Blue 500GB	4,000
Monitor	BenQ G2222HD	7,000
Graphics Card	Asus 550Ti	8,000
Cabinet	Cooler Master Elite 310	1,800
PSU	Corsair CX430	2,400
Speaker	Altec Lansing V2621	1,800
Mouse	Zebronics Judwaa 5 (bundled)	-
Optical Drive	LG 22x SATA DVD Writer	950
Keyboard	Zebronics Judwaa 5 (bundled)	465
Sound Card	None	-
Total		**38,315**

MID-RANGE GAMING

Processor	Intel Core i5-2400	11,200
Motherboard	MSI-H67 MA-E35	4,600
RAM	G.Skill F3-10600CL9S-4GBNT	1,200
HDD	WD Caviar Blue 500GB	4,000
Monitor	Samsung P2350	10,800
Graphics Card	Zotac nVidia 560ti	13,000
Cabinet	Cooler Master Elite 430	2,700
PSU	Seasonic S12 II 520	4,100
Speaker	Altec Lansing V2621	1,900
Mouse	Razer Abyssus (bundled)	-
Optical Drive	LG 22x SATA DVD Writer	950
Keyboard	Razer Cyclosa (bundled)	2,250
Sound Card	None	-
Total		**56,700**

ULTRA HIGH-END GAMING

Processor	Intel Core i7-2600K	17,500
Motherboard	ASRock Extreme 7 Gen3	19,000
RAM	G.Skill F3-12800CL9D-8GBXL	3,100
HDD	2x Seagate 1 TB + Kingston 64 GB SSD	16,800
Monitor	BenQ XL2410T	26,000
Graphics Card	ASUS nVidia GTX 680 2GB	36,000
Cabinet	Cooler Master HAF922	7,500
PSU	Seasonic X850 (80+ Gold)	10,000
Speaker	Logitech Z506	6,700
Mouse	Logitech G9x	5,000
Optical Drive	LG 12x Blu-ray OEM RW	6,000
Keyboard	Logitech G510	5,000
Sound Card	ASUS Xonar DX 7.1	4,700
Total		**1,63,300**

OPTIONAL ACCESSORIES

Speakers (5.1)	Logitech Z5500	18,500
Controller	Xbox360 Controller (wired)	1,350
Controller	Logitech G25 Racing Wheel	17,000
Webcam	Microsoft LifeCam HD	2,000
Headset	Creative Tactic Sigma	4,000
System Fans	Noctua NF-P12-1300 120mm Case Fan	1,000
System Fans	Noctua NF-P14 FLX 140mm Case Fan	1,200
Sound Card	ASUS Xonar Essence STX	7,500
USB Hub	Belkin 7 port USB HUB	1,000
Wireless router	Linksys WRT120N	1,550
CPU Cooler	Noctua NH-D14	5,250
CPU Cooler	Coolermaster Hyper TX3	1,500
Thermal Paste	Arctic Cooling MX2	500

Wireless charger pumps power
Students of Rice University have come up with a solution to remove wires currently needed to pump power to the ventricular assist devices

McAfee founder booked
Belize's Gang Suppression Unit found 10 unlicensed firearms and 5 air rifles when they raided his place **http://dgit.in/Jb69id**

SPEND SMART

Updated prices of mirrorless cameras, HD Media players, Monitors and more



MIRRORLESS CAMERAS

Name	Display size (in inches)	MegaPixel Count / Sensor type	Shutter speed (in secs)	ISO Range	Price in ₹
Sony NEX-5K	3	14.2 / Exmor APS HD CMOS	1/4000 to 30	200 - 12800	24500
Fujifilm FinePix X100	2.8	12.3 / CMOS	1/4000 to 30	200 - 6400	74999
Olympus PEN Lite E-PL3	3	12.3 / High Speed Live MOS	1/4000 to 60	200 - 12800	34500
Nikon 1 J1	3	10.1 / CMOS	1/16000 to 30	100 - 3200	29052
Olympus E-P3	3	12.3 / High Speed Live MOS	1/4000 to 60	100 - 12800	38999
Nikon 1 V1	3	10.3 / CMOS	1/16000 to 30	100 - 6400	42632
Olympus E-PL1	2.7	12.3 / High-Speed Live MOS	1/2000 to 60	100 - 6400	19000
Sony NEX-3K	3	14.2 / Exmor APS HD CMOS	1/4000 to 30	200 - 12800	19500
Olympus E-P2	3	12.3 / High-Speed Live MOS	1/4000 to 30	100 - 6400	40309
Fujifilm X-Pro1	3	16.3 / X-Trans CMOS	1/4000 to 30	100 - 6400	99999
FujiFilm X10	2.8	12 / EXR CMOS	1/4000 to 30	100 - 3200	44999
Olympus OM-D E-M5	3	16.1 / lIVE MOS	1/4000 to 60	200 - 25600	77990
Olympus PEN E-PM1	3	12.3 / CMOS	1/4000 to 60	100 - 12800	29500



GPS DEVICES

Name and Model Number	Display size (in inches)	Bluetooth Connectivity	SIM card slot	Storage (card type)	Weight (in grams)	Price in ₹
MapMyIndia VX240	4.3	Y	N	SD	192.6	15490
MapMyIndia ZX250	5	Y	N	micro SD	185	15990
TomTom VIA 125	5	Y	N	micro SD	213	15999
Garmin nuvi 2565LM	5	Y	N	micro SD	192	18990
MapMyIndia CarPad	7	Y	Y	micro SD	NA	22990
Primo GPS PG500X	5	Y	Y	micro SD	170	9999
SatGuide 5.0 Navi	5	Y	N	micro SD	198	10990
MapMyIndia VX140s	4.3	Y	N	micro SD	165	11990
TomTom VIA 120	4.3	Y	N	NA	183	12999



HD MEDIA PLAYER

Name	Capacity	HDD size	Connectivity	Dimensions (WxDxH in mm)	Weight (in grams)	Price in ₹
IOmega ScreenPlay DX	1 TB (internal)	3.5 inch	HDMI, Ethernet, Composite Video, Component Video, Coaxial Optical S-PDIF, USB 2.0	203.2 x 156.7 x 47	1190	11660
IOmega ScreenPlay MX HD	1 TB (internal)	3.5 inch	USB 2.0,HDMI Composite video and audio R/L Coaxial S/PDIF output	180 x 134 x 42	1016	7720
Asus O Play HD(HDP-R1)	no inbuilt storage	n.a	HDMI, Ethernet, Composite Video, Component Video, Coaxial Optical S-PDIF, USB 2.0	181.0 x 125.3 x 47.7	479	5490
Measy X7 Full HD Android	3 TB external	3.5/2.5 inch	HDMI, Ethernet, Composite Video, Component Video, Coaxial Optical S-PDIF, USB 2.0, WiFi	n.a	2500	8990
Xtreamer Sidewinder HD TV	1 TB internal	2.5 inch	HDMI, Ethernet, Composite Video, Component Video, Coaxial Optical S-PDIF, USB 2.0	180 x 32 x 82	1000	9990
AmketteFlash TV HD	No internal storage	n.a	HDMI,Composite Video, Component Video, Coaxial Optical S-PDIF, USB 2.0,SD Card	66 x 66 x 16	43	3995

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Gold-plated motherboard
ECS introduced two 15-microns gold-plated motherboards, which it claims, will provide better anti-rusting and anti-moisture capabilities

Yebhi.com brings the bling
The Indian e-retailer of home, lifestyle and fashion has acquired stylishyou.in to retail exclusive brands and designer jewellery through its portal



MONITORS

Name	Resolution	Connectivity VGA / HDMI / DVI	Tested Contrast ratio	Screen size (in inches)	Price in ₹
BenQ BL902M	1280x1024	Y/N/Y	598.14 : 1	19	8850
BenQ GL2250HM	1920x1080	Y/Y/Y	570.86 : 1	21.5	8700
BenQ G2222HDAL	1920x1080	Y/N/N	454.21 : 1	21.5	8000
Acer S221HQL	1920x1080	Y/Y/Y	722.5 : 1	21.5	8500
BenQ RL2240H	1920x1080	Y/Y/Y	624.28 : 1	21.5	10000
LG E2290V	1920x1080	Y/Y/Y	476.31 : 1	21.5	12280
Samsung S23A350H	1920x1080	Y/Y/N	205 : 1	23	11300
ASUS VS247H	1920x1080	Y/Y/Y	336.53 : 1	23.6	12300
LG D2342P	1920x1080	Y/Y/Y	535.65 : 1	23	15850
Acer GR235H	1920x1080	Y/Y/N	606.8 : 1	23	15999
ASUS PA238	1920x1080	Y/Y/Y	335.2 : 1	23	17100
BenQ XL2420T	1920x1080	Y/Y/Y	811.07 : 1	24	22000
BenQ EW2430V	1920x1080	Y/Y/Y	1440.9 : 1	24	20990
Dell U2412M	1920x1080	Y/Y/Y	220.33 : 1	24	23000
BenQ GL2450HM	1920x1080	Y/Y/Y	526..09 : 1	24	12500
BenQ Rl2450H	1920x1080	Y/Y/Y	574.8 : 1	24	14500



INTEL X79 BOARDS

Name	SATA 2 / SATA 3 ports	USB 2.0 / USB 3.0 Ports	POST code readout	Overclocking Button	Price in ₹
Intel DX79SI	4 / 2	6 / 2	Y	N	17000
Gigabyte GA-X79-UD3	4 / 6	8 / 2	N	N	17500
ASUS Rampage IV Gene	4 / 2	7 / 2	Y	N	18650
MSI - X79A - GD45-8D	4 / 2	6 / 2	Y	Y	18900
Biostar TPower X79	3 / 4	2 / 6	N	N	18900
ASRock X79 Extreme 6	4 / 5	4 / 4	N	N	18999
Gigabyte GA-X79 - UD5	4 / 6	7 / 2	N	Y	20000
ASUS P9X79 PRO	4 / 4	6 / 4	Y	N	20350
ASUS Sabertooth X79	4 / 4	5 / 4	N	N	21950
MSI X79A-GD65	4 / 4	8 / 2	N	Y	22400
ECS X79R-AX	4 / 8	6 / 4	Y	N	23000
ASUS Rampage IV Formula	4 / 4	5 / 4	Y	N	23550
ASUS P9X79 Deluxe	4 / 4	4 / 6	Y	N	24500
ASRock X79 Extreme 9	4 / 8	6 / 4	Y	N	24999



HEADPHONES

Name	Type	Connectivity	Design	Frequency Resonse	Price in ₹
Philips SHS390	Supra-aural	Wired	Behind-the-neck	12 - 22000 Hz	425
Philips SHP1900	Circumaural	Wired	Over-the-head	20 - 20000 Hz	448
Sennheiser HD 201	Circumaural	Wired	Over-the-head	21 - 18000 Hz	1390
HP RF824AA	Circumaural	Wired	Over-the-Ear	18-22k Hz	505
Intex Wireless Roaming	Circumaural	Wireless	Over-the-head	20 - 20000 Hz	503
Skullcandy Hesh Rasta S6HEDZ-058	Circumaural	Wired	Over-the-head	20 - 20000 Hz	2564
Sennheiser PMX 90	Supra-aura	Wired	Behind-the-neck	20 - 20000 Hz	2490
Sennheiser RS 110	Circumaural	Wireless	Over-the-head	22 - 19500 Hz	4490
Panasonic RP-HX40E	Supra-aural	Wired	Over-the-head	10 - 25000 Hz	1218
JBL AKG K403	Supra-aural	Wired	Over-the-head	16 - 21000 Hz	1990

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87 **Industry Connect**
Digit spoke to Shashi Arora, CEO – DTH & Media at Bharti Airtel and Richard Rutledge, COO – Western Digital

94 **Choose the right printer**
If you've been planning to splurge on a printer for your home office, this article is just right for you

Communication & connectivity

We sat down with Huawei's Anand Narang, Marketing and Solutions Director for India. The company's taking some aggressive strides in the smartphone segment, and also has offerings in the data communication and cloud computing segment

Jayesh Shinde
jayesh.shinde@thinkdigit.com



Anand Narang, Marketing and Solutions Director, Huawei India

Would it be fair to say that Huawei offers value for money products and aims at the entry-level consumer in the market?
Huawei believes in technology leadership and innovations. Our focus has been on a portfolio of products – smart phones, data cards & tablets. In each of these product categories, we are offering a suite of latest technology, e.g., cloud+ features (phone finder, 16GB memory, message+ to send images, music, files etc.), the world's first multi-mode 4G dongle, the world's fastest data cards and slimmest data cards and also the world's thinnest and fastest smart phones etc. Our focus is on delivering premium experiences to mass market, driven by our local consumer insights.

How do Huawei's cloud services differ from other offerings in the market?
When you sign up for Cloud+, you automatically get 16 GB of free storage. Since your contacts, mails, messages, camera rolls, settings and account information doesn't use as much space, you will find that 16 GB of storage goes a long way. You can store up to 3500 songs or 7000 photos. If your Huawei phone is missing, Hicloud can help you figure out where your phone is. Log on to www.hicloud.com; use the Phone finder feature to locate your phone on the Google maps. Not just locate, perform other security functions to safeguard your data from intruders.

Do people really buy Internet dongles all that much in India?
Huawei command 70 per cent market share in operator forward bundled data card. We sell over 3 million data cards every year. While continuing to support and work closely with operators for the 80 per cent forward bundled data cards, Huawei will also bring offerings to the remaining 20 percent consumers who need an unlocked data card who are free to choose operator & plan. Huawei will work closely with operators to offer reversed bundled data plans in the open market helping operators expand their data business.

Your thoughts on 4G rollout in the country and when will you offer 4G dongles?
Many of the leading operators have already declared the launch of their next generation networks, which will be based on LTE. With the launch of Bharti Airtel's 4G services, Huawei, the telecom solution provider, gets the opportunity to offers its first LTE Router B593 and LTE USB Stick E392 to the Indian customers. The company globally leads the mobile broadband and data cards segment with over 55% of market share. The entry of LTE in the technology world will definitely prove to be the right choice for a new era in mobile communication.

Are you guys working on creating brand awareness? What are the challenges?
Consumers in India would not have seen much yet in the name of marketing activity from Huawei. But in terms of reaching out through digital media and retail outlets, we are still active. At present we are increasing our channel strength. At present we are still in the process of understanding Indian customers. Once we do that, only then would it be right for us to invest money in ad-campaigns so that we have the right products distributed using the right vehicles to accompany the television commercials and print ad campaigns. Huawei wants to understand the Indian consumer's preferences for 3G and 4G devices across smartphone / tablet / data cards. So that's a challenge. We are also engaging consumers around connected experiences with our 360 touch point strategy. We are also leveraging new channels like Facebook to provide online service to our consumers.

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IKEA unveils cardboard camera
Disposable camera from IKEA has a USB port for transferring photos, and runs on two AA batteries **http://dgit.in/IOqY1W**

Tim Cook – highest paid CEO
Apple's chief executive is followed by Oracle's Larry Ellison, who lags by $300 million, as per Wall Street Journal survey **http://dgit.in/KKtY5t**

New Age of Digital TV



The year 2012 will indeed be a turbulent year for DTH operators. Already under pressure from multiple taxation, they will face competiton from cable operators post digitization, will have to manage space issues thanks to the increasing number of HD channels, and do all this while keeping pricing structures affordable. We speak with Shashi Arora, CEO – DTH & Media at Bharti Airtel to understand how this affects DTH operarors

Vishal Mathur
vishal.mathur@thinkdigit.com

Is digitization a boon for the industry? Or will the current issues like under-reporting by cable operators still continue?
Digitization of cable network will hugely benefit the entire ecosystem consisting of the government, broadcasters and consumers. For consumers, this translates into wider choice of TV channels, better quality of transmission, increased value added services and paying for what they view. For the government, greater customer declaration will lead to better tax compliance and tax revenues. Lastly, broadcasters will enjoy a reduced dependence on advertising revenues with subscription-based services as well as a lowering of carriage fees. I think digitization is a must for a country like India as it removes the biggest issue like underreporting and is a win-win situation for all stakeholders.

How big is this opportunity for DTH as an industry to gain new subscribers?
India has about 148 million television households of which 85 per cent (126 million) come under the cable and satellite (C&S) connectivity. Of these C&S homes, cable reaches to 80 million homes, while the rest are connected by either DTH (around 41 million) or digital cable Set Top Boxes (5 million) or Internet Protocol TV (around 0.05 million). Hence there is a huge untapped market for operators offering digital content with over 100 million homes waiting to be converted to a digital platform in 3 years time - the largest in the world at this point.



Shashi Arora, CEO – DTH & Media, Bharti Airtel

Will it be possible for Airtel's DTH offering to compete with the cable operator in terms of pricing of channel packages and the one time cost of buying the hardware?
A regular SD box from Airtel digital TV costs as low as ₹1,590, which includes installation charges as well. We also offer a one-year warranty on Set-top box maintenance. We offer more than 300+ channels. Compare this with the cable offering which will be a shade lesser than the prices but lesser number of channels. Also, to ensure money is not a deterrent for customers - we have a national entry tariff point 'Value pack' which starts at a nominal price point of ₹158 + taxes and comes with 191 channels and services. There is a special entry pack for the 5 south states package called 'South Super Value pack' which starts at ₹140 + taxes and comes with 119 channels and services. DTH platforms offer value for money.

Apart from pricing, I am certain that Airtel digital TV scores over cable in terms of multi lingual 24x7 service accessibility, technology advantages like latest MPEG4 DVB S2 technology, 7.1 Dolby digital Plus surround sound, Universal Remote, Weather Proof Signal Capability, more than 300+ channels and services, highest number of HD Channels, exclusive Airtel movie channels and many more.

DTH operators have always been on the wrong side of service tax structures. Is that hampering the ability to offer services at even lower rates?
Yes. Currently, about 33 percent of the monthly tariff realisation from the customers goes to the government in the form of taxes and fees. For an industry that is today an 'essential' service, this high incidence of tax is detrimental to the consumer and the industry. I am sure that if the taxes are rationalised, the customer will experience digital content at a much lower price points. The tax structure has to be made a level playing field with cable for DTH industry to compete.

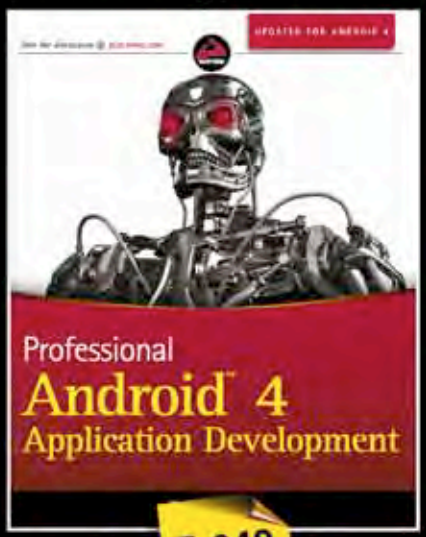
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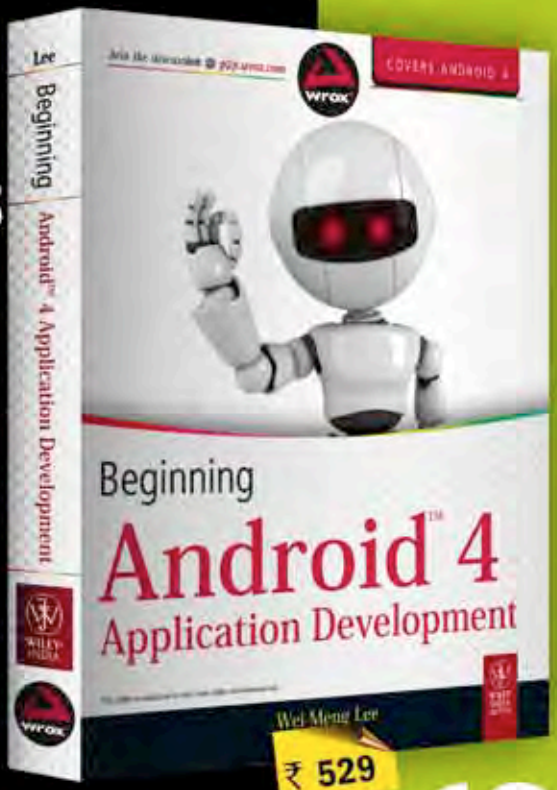
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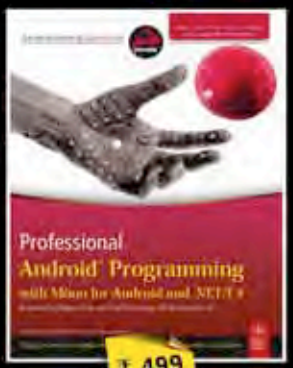
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Spotify releases iPad app
The new layout is much sleeker than the clunky, iTunes-inspired desktop version. A premium subscription is required to use the app, despite it being free to download



PureView 808 is coming in May
Nokia confirmed that the 41MP camera smartphone is coming in May as promised way back in February
http://dgit.in/KuRGgD

Talking Storage

We had a free-wheeling discussion with Richard Rutledge, Western Digital, Chief Operating Officer at the WD Annual Summit in Vienna. An excerpt...

Nimish Sawant
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Due to the Thailand floods, the prices of HDDs have gone through the roof. By when will the pricing normalise? Also, there's a fear that distributors are purposely keeping the prices higher. What do you have to say about that?
I don't think prices will ever come down to what they were. We'd developed a total supply chain in and around Thailand, based completely upon cost. We had multiple sources and multiple factories but all were in the same geographic area. There are some structural costs added to our industry that will probably never go away, but in general prices responded to the floods immediately and went up, and they've been on a decline, albeit a slow decline since. I think in India prices went up above ₹3,000 when I was there.

As for the bloated prices by the distributors, their financial results wouldn't support that.

WD has a plant in Malaysia, and Hitachi which you recently acquired has a presence in China. Are you planning to open plants in other areas to reduce the dependence on one single location?
We started the company in 1970 and have been in operation in Malaysia since 1972. We're the largest MNC in Malaysia and Thailand. The industry made a lot of investment in South-East Asia. So it started from Singapore, then moved north to Malaysia and then to Thailand. If you look at Thailand, there are a number of industries there such as the car industry, Nikon's camera facilities, etc. A lot of the partners who provide the components are also based in Thailand, so we have to



Richard Rutledge, COO, Western Digital

be sensitive towards Thailand. Thanks to our acquisition of Hitachi, we have some presence in the Philippines. Today we have some capacity in China, outside of Shenzhen, out of Hong Kong. Quite honestly, it's not really cost effective to have facilities outside Thailand, as all the partners who manufacture the components are located within a 25 km radius of our facility. The entire disc drive was produced inside 25 kms.

The Thunderbolt drives are priced very high. Who's it targeted at?
There are content creation professionals, spending their whole day developing content, developing web pages and they understand the benefit of making their lives easier. But in general, the reason Thunderbolt is being developed is because in some time, data will be transitioned from going down through wires, to going through optical cables. The idea is to move from wires and electricity to optic fibre cables and light. The technology really works. The reason behind it is that all technologies from SATA to USB can go to a maximum of 5-6 Gbits/sec, which goes through a pair of wires. The benefit to the consumer today is that it's really fast.

What's Western Digital's stand on hybrid drives?
We're interested in hybrid drives. What you'll see in an Ultrabook is an SSD, typically around 24 GB along with a regular hard drive, typically 500 GB and up. What will happen is your data will be cached to your SSD. So we'll have an mSATA port based SSD along with a regular HDD. After that technology gets adopted in the mainstream, we can do a lot of interesting things, by bringing the SSD on the HDD. In such a scenario, the HDD will be off most of the time as all the data will go via the SSD.

Is there a reason to use SLC NAND in place of MLC NAND? Why is MLC NAND not used – it can probably give you a better capacity SSD while keeping the pricing low?
The current products that Intel have announced are all SLC-based NANDs in the hybrid drives because the computer is very data intensive. As flash tends to wear out soon, SLC is most appropriate to use today. Yes, people are working on implementing the drives with an MLC NAND to get the pricing down.

Could you elaborate on the personal cloud storage that WD is investing in? The WD2Go apps are free and so long as you have a WD external drive, you can access data on it using this app. Now with big players like Google coming into the picture, where do you see WD personal cloud headed?
In our components business, we have a marketing pitch called "the power of choice". Even in a 2.5-inch and 3.5-inch segment, we have varieties based on the need. We have products for laptops, desktops and enterprise products. So, in general we believe in choice. It's not clear to us whether people are comfortable putting all their data in a public cloud. A company

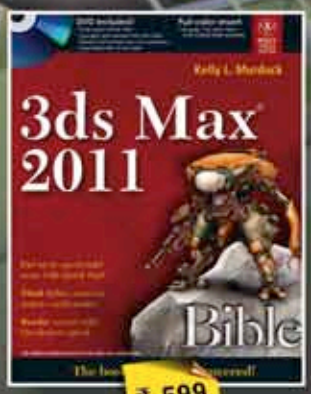
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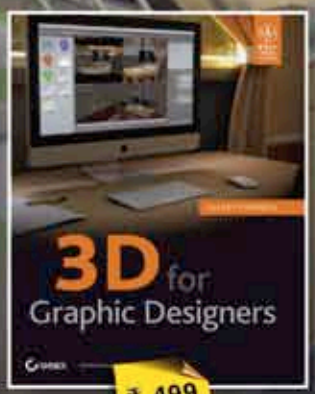
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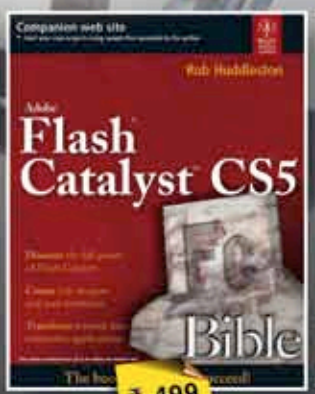
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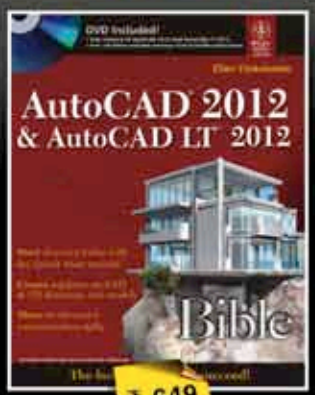
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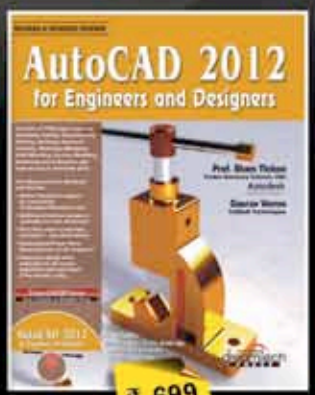
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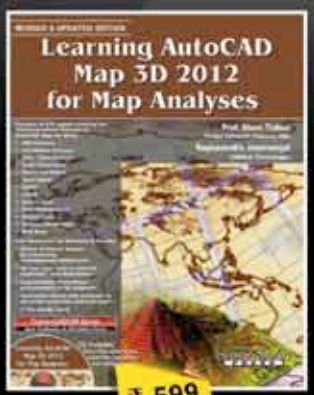
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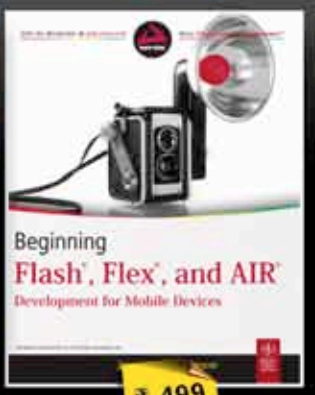
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Evernote acquires Penultimate
Penultimate,the most popular digital handwriting recognition iOS app has joined the Evernote family



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like Google is quite strong financially and may never go away, but there's a company like MegaUpload, which has been shut down by the government, thereby users lost a lot of their data. So it's pretty clear. Do you have all your money in one bank or do you have some of it home? There's this whole battle of mine versus theirs. We're just giving users a choice. Plus there's no monthly fee involved.

So there's no revenue model?
For us there's a revenue model. You buy the product, pay that one-time fee and then you can use the service for free.

Could you elaborate on WD's enterprise segment and its overall contribution to your bottomline?
The company started in 1970 as a semiconductor company. By the 80s we had transitioned to a controller and board company. By late 80s we transitioned to a hard drive company. So we are one of the few companies who have transitioned somewhat like a cockroach - hard to kill. So we are very much step-by-step. We come from the PC world, so that is our main segment. The enterprise world is very far from us. Althogh we do have a 25 percent share in the enterprise segment, the type we are looking at is typically mirrorline or SATA or mission or business critical. It's the next tier up the enterprise, which is high speed and high performance which we recently announced, our third generation products - the S25 900GB and the 1TB Velociraptor. So we are still early considering we are third generation for an enterprise product. Typically it takes 2 or 3 generations to get more momentum.

To assist you with this, have you partnered with any companies globally or in India?
Oh yes. Enterprise products have a very extensive compatibility because there's a large number of things such as the RAID controller. For example, the Caviar brand has a very specific compatibility, it is designed for the PC. The Scorpio brand is designed for the notebook. The AV brand is designed for set-top boxes or surveillance, etc. So we have a tremendously successful partner program to test the inter-operability and compatibilty on the development side. On the sales and marketing side, we sell directly to the largest OEMs, benefit of being in the industry for a long time. We still have work to do, but we have a 24-time zone distribution channel covering many countries. So are we successful in India as we would want to be? No. What are we doing about it? We are investing, in the right people, investing in the partners, investing in the capabilities.

Could you elaborate on WD's SSD plans?
So according to our research from the 500,000 petabytes of data that was transferred last year, only 20,000 petabytes were using flash drives. That amounts to a mere 4 percent overall data transfer share. So that's an interesting statistic that flash is only 4 percent of the overall storage. The current SSD products we have under the WD brand were got from a company we acquired called Silicon Systems. they are focussed on the embedded industrial market places, which are the closest markets to the enterprise which equates to high duty cycle, high reliability and very long life-cycle. And that was the strategy.

With regards to consumer market, we are very much in support of this dual hybrid drive. We have teams working on SSD products, but we wont announce products before we are shipping. Safe to say we are investing.

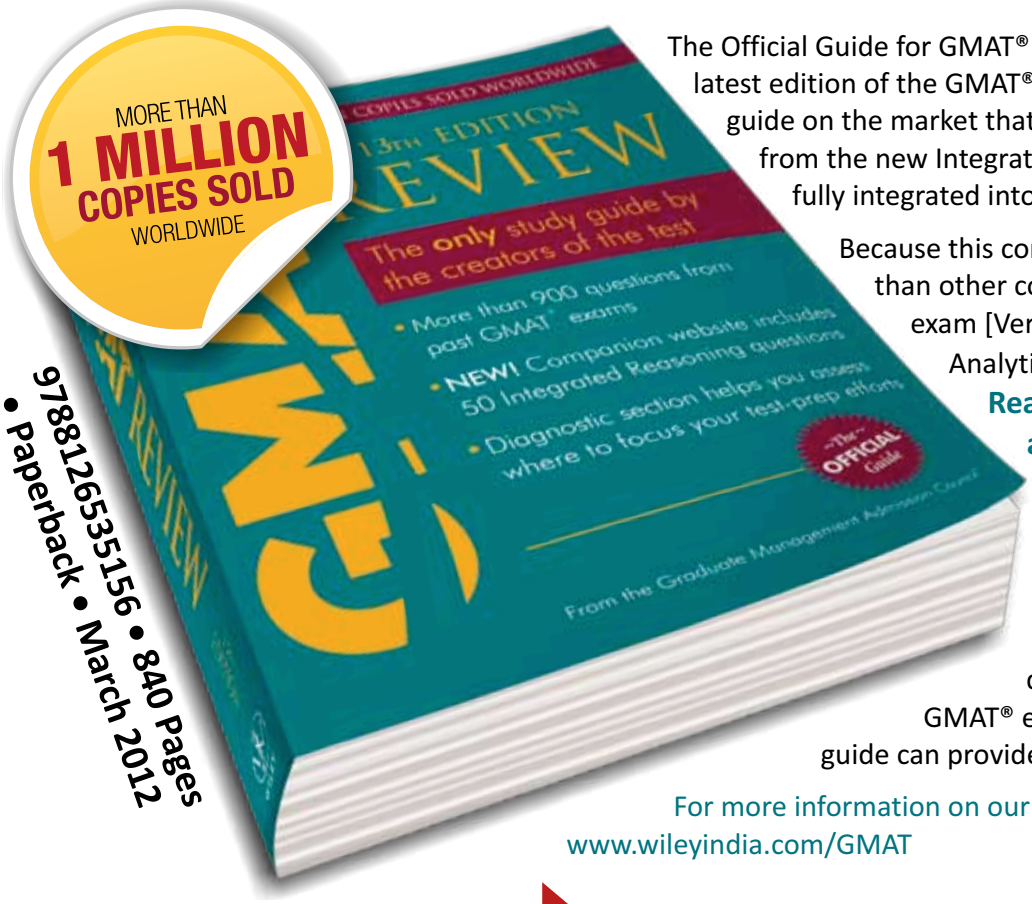
A lot of WD media players have come out in the market, so how do you see that particular segment's growth?
We would have told you in the past that we are only interested in the storage of your data, and that is our core business. The products you see in WDs portfolio transport data, there's powerline network products, there are products that consume your data such as the HD media players. So we're very focussed on the connected home. We aren't the only company to use that term. We think we do a pretty good job on the ease of use. The brand WD, for many people, perhaps not as much in India, but many feel that the brand gives good products,it's an easy to use service, it's got a good support. And so, we are interested in the entire eco-system at home. I will say it is a very difficult product to offer services on, as video services differ from country to country. That is very unique for us. Most of our products we can launch in 24 different time zones and 40 languages. Languages are not as hard as you think, but getting the content from country to country – that's very hard.

When testing the WD HD media players, we noticed that many of the video services such as Netflix, Pandora, Radiofly etc., don't work in the Indian market. Can those be replaced by more local content? What are your thoughts on tie-ups with content providers on this front?
Now that's challenging. The video content market in the world, specially people who own the copyright to the video, license it on a country by country basis. So, if you go back to Hollywood or Bollywood, there is a strong reason why they have a strong IP. it's a hard business for us. As for tie-ups I don't have any announcements. We have dedicated resources working specifically on content relationships country by country. But in the media player category, whether you have Apple computers or WD or any other suppliers, it is hard to build a library of content. So we have work to do there.

How does WD maintain its first mover advantage? It was the first to come out with a 3TB drive with the advanced 4K format; then recently you announced a portable 2TB drive.
With success you are able to invest more, you are able to hire more specialised people,that allows you to do more products. We are a 42-year old company that is a long time. This industry has seen a lot of mergers and acquisitions and fortunately we have been the people buying. We have a lot of products and dedicated teams working on them. They keep getting better at what they do.

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Choose the ideal printer for your home office

We identify the things that matter, that generally aren't as popular, while you contemplate the budget

Jayesh Shinde
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Convergence is a common thread running across personal technology, as boundaries between products and categories quickly erode. This can't be more true in the case of printers and their evolution over the past few years. The differences used to be substantial, but there isn't all that much separating a home printer from a small office printer. Which one should you buy? There are some important decisions to take...

Monochrome or colour?

Depending on the kind of business you run, your requirements from an office printer will differ. A graphics designer freelancing from home will have a different need than an insurance agent who deals with a lot of data and numbers on his spreadsheets. It's important to identify your needs and anticipate what your printer will be expected to print on a regular basis.

Monochrome laser printers are some of the best bets for small offices that need work reports and balance sheets to be printed frequently. The ink or toner expenditure on these printers is also considerably lower than on colour cartridges. But if you'll be generating many graphical prints, it's a better idea to go for a colour printer. It's a necessity for magazine or gazette publishing, marketing campaigns and design houses. Colour printing is fun!

Laser/LED or Inkjet?

For a business environment with a lot of data, numbers being printed, opting for a laser or LED printer over an inkjet solution is the best decision you'll ever make



– if, as we said, your office environment demands only basic printing options. Nothing fancy. Also, laser and LED printers are faster than inkjet printers.

The decision to buy an inkjet printer for your office must be taken after extensive research about the printer's cartridge cost, yield, etc. Generally, as a thumb rule, inkjet printers are better at printing on various types of surfaces than laser or LED printers. But inkjets are slower in comparison. Also, if you buy a fast inkjet printer, its print quality won't be as great as a slow or average inkjet printer.

Network-ready printer?

This depends purely on whether you work alone or have a team of 2-3 mates whose work terminals aren't connected by a network. Basically, if you're fine with the idea of your work printer not being connected to someone else's PC (whoever sends the most print commands!), you should be fine with a printer without network printing options. However, if you have a network with more than a few terminals, then it's wise to have a network-enabled printer which comes with an ethernet port. Wireless printers are also a growing trend these days, when workplaces are going cableless.



The humble MFP – the all-rounder among printers

Duplex

This is probably the most under-rated feature in any printer, and it takes greater significance in an office environment. Duplexing simply means printing on both sides of a paper. Hence, printers with the duplex printing feature can print on both sides of papers fed through the tray. This feature goes a long way in deciding how much cost you incur on your office's paper expenditure.



Monochrome printer in all its glory

This is all about single-function printers which can only print files from a command given by a computer. Let's consider another option should you contemplate buying an all-in-one device.

Should you buy an MFP?

MFP or multi-function printers are a breed of printers that don't just output printed files on paper, but also allow you to scan images of paper and quickly photocopy them. Some of these MFPs also come equipped with a fax modem to send and receive fax.

A couple of things to remember before quickly making up your mind in favour of an MFP of your favourite printer brand. If you scan a lot of copies (over 100 in a day), you're better off having a dedicated scanner for that job which will have a better ADF (automatic document feeder) for scanning multipage documents. Also a dedicated scanner will work much faster than an average MFP. Do people even use fax these days?

Hope these lesser known facts help you buy the right printer for your home office.



106 **Ultrabooks Shootout**
We face off the latest ultrabooks in the market to tell you where you should put your money

112 **Travel-zoom cameras**
Check out our travel-zoom camera comparison test



TABLET MANIA

Finally budget tablets emerge that aren't expensive. We size up the competition

Sameer Mitha
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Tablets have come a long way since the launch of the grand-daddy of tablets, the iPad way back in 2010. From iPad killers, to budget tablets for the masses, we have seen the tablet market flood with a wide variety of products since then.

But it's only in the past 6 to 10 months that budget tablets have begun to make sense. They are built decently enough not to look like plastic toys, pack in basic hardware under the hood – will run most games satisfactorily and multimedia will playback without any hic-cups. Critically, the battery will last you for a few hours at least.

Budget tablets are essentially aimed at someone who has a limited budget but wants the tablet experience anyway – an entry / first time device, if you will. Consumers too have stared realizing the value of the tablet as a "little bit of this and little bit of that" device. It can't replace your laptop to a certain extent, but is way too big to be your smart-phone. You can use the device comfortably as an e-book reader, portable media hub, emails on the move, office suite usage scenario, social networking and a whole lot more.

For this edition of the tablet test, we are testing 15 tablets that are available in the market today, costing less than Rs. 15,000. We have tested them on a variety of aspects like raw performance, battery life, multimedia, gaming, build and inputs supported to arrive at the final winners.

DESIGN AND PORTS

In terms of design, there are a lot of similarities between these tablets. They all have a 7-inch display (except the Intex iTab that is an 8-incher), have a plastic build and support a wide array of input options. All the tablets have a capacitive touchscreen except the Beetel Magiq, Zync

Z909 Plus, Wishtel Era and the Milagrow Women's TabTop. A stylus is recommended.

First up, the tablet that blew us away was the iBall Slide. We were surprised when it was fished out of the box – completely redesigned from the version that we had tested last year. It has a very slick rectangular design with 3 touch sensitive buttons – kind of inspired by the design of the Dell Streak, but only a bit bigger. The overall build quality is very good. In terms of connectivity, it supports Full USB, mini USB, mini HDMI, an SD card slot, DC in and the headphones jack. For its price, the tablet has a surprisingly premium feel to it.

The BlackBerry Playbook has the best finish we have seen on a sub 15k tablet. It has a glossy screen covering the entire front without any plastic edges. The back has a rubberized finish giving the device a very premium feel in ones hands. The connectivity options are however limited to Micro USB, charging port and mini HDMI.

The one device that stands out is the Intex iTab. Not only because it has the largest display amongst the competition but it also spots a 4:3 aspect ratio – a rarity these days.

The other tablet that sports a 4:3 aspect ratio is the Milagrow Women TabTop. Apart from lacking a full sized USB and an HDMI out, it has all the other connectivity options. The biggest downer is that the touchscreen is resistive and the device itself doesn't house the stylus, which is disappointing.

The iBerry Auxus AX02 has a rectangle clean design, some people may find the edges to be a little sharp. The build of plastic on this one is really nice. It has a black matte finish with ports neatly laid out on one side.

But the slimmest of them all has to be the Micromax Funbook. On the face, the device looks very similar to the Mercury Mtab but is a much slimmer version of the same. The build of the device is plastic and it houses all the ports apart from a full sized USB port.

The Mercury Mtab on the other hand is one the oldest budget tablets on our list. The successor to the Mtab, the Mtab Neo2 however is a massive improvement from its predecessor. It has a very nice form factor, similar to that of the iBerry, houses all the ports and even has a slot for a SIM card. Pair of twins that have made it on our list are the Beetel Magiq and the Beetel Magiq Glide. The Magiq is the first gen tablet from Beetel where as the Glide was launched much later. These are 2 tablets on our list that have SIM card support (works with all GSM networks – no network lock) that can be used for data as well as to make calls. The core design of both the Magiq devices is essentially the same but the Magiq has a resistive touchscreen and the Magiq Glide has

HOW WE TESTED

Benchmarks: The objective tests are a series of benchmarks that measure the performance of the tablets. These benchmarks give an objective score that judges the performance of the hardware under the hood of the device. There's also a browser-based test called PeaceKeeper.

Gaming: A tablet is also a bit of a gaming device. Some of the games that are available for tablets are graphically heavy and need some power to run smoothly. As a standard, we played quite a bit of Angry Birds Space to check for issues like screen lag, input lag, etc. There is also a benchmark, GLBenchmark (Egypt Standard) that measures the gaming capabilities of the device. In all these cases, a higher score means better performance.

Start up: Beyond benchmarks (going subjective now), we also tested the startup time of these devices to see how long it takes for the tablets to reach the lock screen from the power off mode. This was done after factory resetting the tablets, doing the logins at the first startup, and restarting the device again. No apps were installed prior to this test, except for the ones that came pre-loaded.

Multimedia: We ran a bunch of 1080p videos in the. MP4 format. We not only judged the ability of the device to play the video smoothly – jumping forwards and backward on the play-timeline to check for stutters, freeze, crashes etc. We also played a bunch of MP3 songs to see how the speakers performed.

Build: Since a tablet is considered as a "lifestyle" device, we have also taken into consideration the build quality, plastics used, slimness of the device and its overall feel in our hands. There are multiple parameters on which each tablet is rated, before we reach one final build quality score.

Battery life: To test the longevity of the battery, we first ran a video in loop until the battery reached from 100% to 0%. Secondly, we made some real world use of the device my running apps, watching videos, listening to music, e-mail, so on and so forth, to see the life span of the battery.



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Brand	Mercury	Beetel	Reliance	iBall	Blackberry	Zync	
Tablet name/number	Mtab	Magiq	3G Tab	Slide	Playbook	Z-990	
MRP (version we tested)	**10,000**	**9,999**	**12,999**	**12,449**	**13,990.00**	**8,990**	
MRP (Other storage options)	**N.A.**	**N.A.**	**N.A.**	**N.A.**	**Rs.19,990 (64GB)**	**NA**	
Street Price	8990	8999	12990	12,449	13,990	8,990	
Ratings							
Performance	11.67	12.90	11.90	14.51	9.96	12.46	
Features	13.64	13.91	13.96	16.19	15.95	13.77	
Design	15.90	16.20	18.75	17.85	21.90	15.90	
Final Score	41.21	43.01	44.61	48.55	47.82	42.13	
Specs							
Processor	Telechip (ARM) Cortex A8	Qualcomm Snapdragon S2	ARM 11	ARM Cortex A8	ARM Cortex A9	ARM Cortex A7	
Processor max clock speed/ Processor cores	1 GHz/1	1 GHz/1w	800 Mhz/1	1 GHz/1	1 GHz/2	1.2GHz	
SoC	N.A.	N.A.	Snapdragon with Adreno 220	OMAP3621 with PowerVR SGX 540	OMAP4430 with PowerVR SGX 540	Vivante Corporation GC400 Graphics Engine	
RAM	512 MB	512 MB	512 MB	512 MB	1 GB	1GB	
Display size (in Inches)/Display type/Display resolution	7/TFT LCD/480 x 800	7/TFT LCD/480 x 800	7/TFT LCD/800 x 480	7/TFT LCD/480 x 800	7/TFT LCD/1024 x 600	7/TFT LCD/800 x 480	
Internal Storage space	4 GB	8 GB	1 GB	8 GB	16 GB	4 GB	
Expandable Memory (Y/N)/ Expandable Memory type	Y/microSD	Y/microSD	Y/microSD	Y/microSD	N/N	Y/microSD	
Wi-Fi (Y/N)/3G (Y/N)	Y/Y	Y/Y	Y/Y (Reliance network locked)	Y/Y	N/N	Y/N	
Battery rating (mAh)	4000	2200	3400	4400	5300	3600	
Dimensions (in mm)/Weight (in gms)	193 x 117 x 14/400	209 x 108 x 15.5/500	N.A./389	N.A/N.A.	194 x 130 x 10/425	NA/380	
Operating System (tested with)	Android 2.3.3	Android 2.2.2	Android 2.3.4	Android 2.3.1	Blackberry Tablet OS 1.08.4985	Android 4.0.3	
HDMI out (Y/N)	Y	N	N	Y	Y	N	
Front Camera resolution (MP)/ Rear Camera resolution (MP)	1.3/N.A.	2/2	0.3/2	2/N.A.	3/5	VGA/NA	
Customized application store	N	N	Rworld	N	Blackberry Market	N	
Build Type							
Panel material used type (plastic, metal etc.)	Plastic	Plastic and Metal	Plastic	Plastic	Plastic	Plastic	
Majority colour used	Black & white	Black & Silver	Silver	Black & white	Black	Black	
Finish type (glossy/matte)	Matte	Matte	Brushed	Matte	Matte	Glossy	
Performance (out of 10)							
On screen keypad layout/ comfort of use	5.5	6	6	5.5	8	6	

a capacitive. The buttons on the Beetel tablets seem to be all over the place. In terms of the ports, the device only has the SIM card slot under the rear cover, a card reader and micro USB on its external borders.

Another company that has sent a pair of devices is Zync with the Zync Z990 and the Zync Z909 Plus. The Zync Z990 has no physical buttons on the face, which is nice, and all the functions are controlled directly from the touchscreen. The overall build quality however feels sub par when compared to its nearest competitor, the iBerry Auxus AX02. The device however, like its competitor houses all the ports neatly to one side.

The other Zync, the Z909 Plus has a very glossy finish making it a fingerprint magnet. The device also comes with a resistive screen and no stylus leaving you with your nails or a pen to navigate through the device, not a pleasant experience. The device lacks HDMI out, but supports a full sized USB port.

The Reliance 3G Tab, has the cleanest design we have seen on a budget tablet till date. It has smooth rounded edges; a well built plastic body but feels really heavy in our hands. On its exterior, the device just has a micro USB port and a headphones jack. Users can rip open the rear panel to find the battery along with which rests the SIM card slot and the Micro SD card slot. This device like the two Beetel tablets too has the ability to make calls.

The only device to have a complete pearl white finish is the HCL Me Tab U1. Although the device doesn't have an

iberry	HCL	Micromax	Intex	WishTel	Beetel	Zync	Milagrow	Mercury
Auxus AX02	Me Tablet U1	Funbook	iTab	Ira Thing	Magiq Glide	Z909 Plus	MGPT02 Women TabTop	Mtab Neo2
9,990	**7,999**	**6,499**	**11,900**	**6,500**	**11,999**	**5,990**	**9,990**	**14,999**
NA	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
9,990	7,999	6,499	11,900	5,775	11,999	5,990	9,990	14,990
16.33	9.70	14.79	15.69	4.94	10.71	9.22	13.15	15.74
14.47	13.27	14.39	13.17	12.87	15.21	12.97	14.81	19.75
16.65	14.70	13.35	16.05	9.90	14.40	12.90	12.45	15.15
47.45	37.67	42.52	44.91	27.71	40.32	35.09	40.41	50.64
ARM Cortex A8	ARM Cortex A8	ARM Cortex-A8	ARM Cortex-A8	NA	ARM Cortex A7	ARM 11	ARM Cortex A7	ARM Cortex-A8
1GHz	1GHz	1.2GHz	1GHz	800MHz	1GHz	1GHz	1.2GHz	1.2GHz
ARM Mali-400M	NA	ARM Mali-400M	Vivante Corporation GC800 Graphics Engine	NA	Adreno 200	Vivante Corporation GC600 Graphics Engine	Vivante Corporation GC800 Graphics Engine	Imagination Technologies PowerVR SGX 540
1GB	512MB	512MB	512MB	512MB	512MB	256MB	512MB	512MB
7/TFT LCD/800 x 480	7/TFT LCD/800 x 480	7/TFT LCD/800 x 480	8/TFT LCD/800 x 600	7/TFT LCD/800 x 480	7/TFT LCD/800 x 480	7/TFT LCD/800 x 480	7/TFT LCD/800 x 600	7/TFT LCD/800 x 480
4 GB	4 GB	4 GB	8GB	4GB	8GB	4GB	8GB	8GB
Y/microSD	Y/microSD	Y/microSD	Y/microSD	Y/microSD	Y/microSD	Y/microSD	Y/microSD	Y/microSD
Y/N	Y/N	Y/N	Y/N	Y/N	Y/Y	Y/N	Y/N	Y/Y
4000	3600	2800	5000	2200	2200	3000	4000	4000
NA/NA	NA/NA	192x122x	NA/475gms	193 x 117 x 14/ 220	NA	NA/850	NA	194x122x12.5/360
Android 4.0.3	Android 4.0.3	Android 4.0.3	Android 2.3.1	Android 2.2	Android 2.2.2	Android 2.3.7	Android 2.3.1	Android 3.0
Y	N	Y	Y	N	N	N	N	Y
0.3/2	0.3/NA	Vga/NA	VGA/NA	NGA/NA	VGA/NA	VGA/NA	2MP/VGA	2MP/0.3MP
N	HCL Me App Store	Mstore	N	N	N	N	N	N
Plastic	Plastic	Plastic	Plastic	Plastic	Plastic and Metal	Plastic	Plastic	Plastic
Black	White	Grey	Black	Black	Black & Silver	Black	Pink	Black
Matte	Glossy	Matte	Glossy	Matte	Matte	Glossy	Matte	Glossy
7	7	6	8	3	4	3.5	3	8

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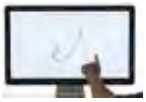
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iPad prices drop
Apple has just dropped its refurbished iPad & iPad2 prices by between $20 and $50
http://dgit.in/JOXJvQ



Motion control takes a 'leap'
'Leap Motion' has started taking pre-orders for its $70 USB peripheral. Have a look at this awesome video **http://dgit.in/JoMPzb**

HDMI out, it does support a full USB port and has a good capacitive touchscreen.

Last but not least, we have the Wishtel Ira Thing tablet. Yes, the name of the device is "Thing". It has a resistive touchscreen and does come with a stylus. Experience isn't great.

All the tablets are at par when it comes to the build and specifications on paper with the difference not being much. The PlayBook has the highest internal storage with 16GB bit lacks any means to expand it.

FEATURES AND PERFORMANCE

Spread all 15 tablets out on a table and they may look similar to you. Most of them even have similar hardware and processor clock speeds under the hood. But the distinguishing factor is the OS.

IBERRY AUXUS AX02

For starters, its well built and has a good overall fell to it. It fits well in our hands nonetheless. The OS runs silky smooth and the overall benchmark performance was top notch. It felt like the perfect marriage between hardware and the latest software, topping our comparison test's charts for the best performance score.

It comes with a bunch of preloaded apps such as the GetJar app store, full Office Suite and Aldiko reader. There was no stutter when we played the 1080p videos and the sound from the speakers was good. Angry birds loaded quickly enough and ran smoothly too.

MICROMAX FUNBOOK

The Funbook is the cheapest ICS tablet on our list but don't link the price to its performance. It has a 1.2GHz processor, 512MB RAM and the ARM Mali-400M GPU which is the same we have come to love from the Samsung Galaxy S2. The device was neck on neck with the iBerry in terms of benchmark performance and even surpassed it in some cases.

The Funbook also comes preloaded with a bunch of apps such as Documents to go, E-learning, Live TV and Micromax's own app store called the Mstore, in addition to the Google Play Store.

Where the device loses out though is in the performance of its display and the battery backup. The performance of



iBerry Auxus AX02

the keyboard and the overall touchscreen falls a bit short when compared to the competition. This device is however a bang for the buck if you want a cheep Android tablet that can support all the latest goodies.

RELIANCE 3G TAB

The Reliance 3G tab is one that contradicts itself. The benchmark scores were underwhelming, but its real life usage performance was impressive. The device has touch sensitive keys to represent home, menu and back and it the only Android 2.3 tablet on the list with the ability to make calls. .

The biggest advantage of this tablet is that you can access 3G via the SIM card and doesn't need a USB dongle handing from the side, as you would have with the other devices. However, this is locked to the Reliance GSM network.

IBALL SLIDE

This tablet blew us away from the moment it left the box. The design has completely changed from the version we tested last year, it has become cooler, sexier and better performing.

The tablet is very comfortable to hold in both landscape and portrait mode, although the keyboard could have been better. The audio-video playback on this device was the best amongst all. The interface of the device is very smooth.

The tablet is an all rounder as its performance is smooth hardware is good and it can run apps from Google Play Store. This tablet wins an award as you'll find out later in the article.

INTEX ITAB

The Intex iTab has the largest screen we have seen in this category. Not only is the size of the screen 8 inches, but its aspect ratio is 4:3 making it stand out. The larger screen gives you more space to work in and this is really good for the keyboard in both portrait and landscape mode. The device too comes with Android 2.3 skinned to portray Android 4.0. One disadvantage of the device is that its aspect ratio leads to loss of screen real estate.



Micromax Funbook

ZYNC Z909 PLUS

A sibling to the Z990, the Z 909 Plus has the specs right on paper but is flawed in its execution. For starters, the touchscreen is resistive making it a bit cumbersome to work on.

The device did run the games and 1080p videos but the experience was a bit underwhelming – would freeze when we jumped around on the playback timeline. Slinging Angry Birds across the screen wasn't fun – lacked the fluidity of better displays. In terms of benchmarks too the device was an underperformer. It has the second lowest benchmark scores of all the tablets we tested. Of course, the tablet is the cheapest on our



Zync Z990

list, but we suggest you invest a mere Rs. 500 more to get the Micromax Funbook, which will be a better overall package.

MILAGROW WOMEN TABTOP

The Milagrow Women TabTop can easily be defined as the underdog that surprised us. For starters, the hardware under the hood is as impressive as the Intex iTab and so is the displays aspect ratio. It is a 7-inch 4:3 display. The overall performance of the Women Tab however is a mixed experience.

For starters, the device really blew us away by performing very well on the benchmark scores. Angry Birds Space loaded in a matter of seconds and ran extremely smoothly. The experience was however a let down because of the resistive nature of the touchscreen.

The device itself doesn't have any space to house the stylus so you can expect to loose it in about 2 days. Since the device is targeted at women, it comes with a few custom features targeted at its specific audience. The home screen interface looks like Barbie's room and all the elements on the display have significance to functions. Example: Clicking on the lamp adjusts the brightness of the screen, the remote control icon takes you to your video library, while clicking on the pen stand takes you to your settings, so on and so forth. You can however; install LauncherPro or any other launcher you like if you think this interface is too girly! The tablet also comes preloaded with a bunch of apps such as dictionary, documents to go, recipes app, news apps and TV for Android.



Mercury Mtab Neo2

The device also comes with a security feature that is targeted at women. For this feature to work however you need to be online and that is a tad difficult since the device supports a 3G USB dongle but not a SIM card. The videos playback on the device was a little disappointing only because of the aspect ratio of the screen. For its price, the device is difficult to recommend. We may have asked you to consider this one on your list if only it had a capacitive screen.

MERCURY MTAB

The Mercury Mtab is one of the oldest tablets on our list, which is to say that it was launched



YouTube reaches milestone
The video sharing website on its seventh birthday revealed that users share staggering 72 hours of video per minute **http://dgit.in/LnDoSJ**

Windows 8 tablets by Nokia
Nokia will be bringing a range of Windows 8 tablet devices as well as 'hybrid' smart mobile gadgets **http://dgit.in/JP8nmf**

way back in 2011. The build of the tablet is at par with the competition but it does fell a little bulky in our hands.



iBall Slide

The Mtab is probably the simplest tablet out there. Its skin is very basic and doesn't have the bloatware that we hate. It doesn't come preloaded with apps but you do have complete access to the Google Play Store. The videos ran smoothly, but the experience was lackluster – colour isnt very vivid and could have done with better depth of blacks. The audio on the other hand from the device was loud, crisp and clear, no complaints whatsoever. Absolutely good.

If you want a raw Android experience, you may take a look at this device although you will get a better bang for your buck if you look elsewhere.

MERCURY MTAB NEO2

The Neo2 is one tablet that is head to head with the iBall Slide. Its performance was neck on neck and it has a fantastic touchscreen.

Even though the tablet runs on Android 3.0, it ran all the apps smoothly. There is a skin on the device but it doesn't impact performance. The only preloaded app that comes with the device is Office Suite but the device can be used as a phone courtesy the availability of a SIM card slot. This means that you can also use your cellular network for 3G data and don't need a USB dongle hanging from the side of the device.



Blackberry PlayBook

BEETEL MAGIQ AND BEETEL MAGIQ GLIDE

In terms of the look and feel, both the devices are identical. Their benchmark performances too aren't very far apart either. The biggest difference is that the screen of the Magiq is resistive and the screen of the Magiq Glide is capacitive.

The best feature of these devices is their ability to make calls. Although it is a little weird holding them up against your ear in public, but the get the job done. The Android 2.2 interface is heavily skinned and they come with Documents To Go preloaded. The biggest downer is that the devices refused to play any of the 1080p .MP4 files we threw at them. This makes the kick stand at the back pretty useless. All in all, the devices feel below average and Beetel will really have to up their game if they want to maintain pace with the competition.

WISHTEL IRA THING

The Ira Thing (yes, that's really the name) is the cheapest tablet on our list. And its performance is matched by its price. It has the slowest processor clocking in at 800 MHz, received the lowest benchmark scores, played only the audio from the videos we loaded onto the device and you can forget about playing Angry Birds Space on the device.

The only consolation is that the device has a channel to house the stylus!

PLAYBOOK: THE ODD ONE OUT!

The PlayBook is an odd device. It has the best hardware under the hood, premium feel, kick ass touchscreen, but an OS that is effectively useless thanks to the inability to tweak and limited apps. The new Blackberry Tablet OS 2.0 for the tablet brings with it what should have already been there - integrated email, calendar, contacts and a better social networking. However, the app ecosystem is still pretty small and the availability of Android apps (limited in number, mind you) has done little to help it since it doesn't have a very large library.

All isn't bad for RIM though. The device is still the best multitasker there is out there and the interface is smooth as butter. If you are one who is close knit with the BBM ecosystem, you may want to take a look at this capable device.

Winners

Ladies and gentlemen, please applaud for our Best Buy award winner, the Mercury Mtab Neo 2. Not only is it one of the best performing tablet in this comparison, but as a package, it offers the best combination of features, design and build quality, and raw performance at a good price – not too expensive at all.

iBerry Auxus AX02 wins has the best overall experience of Google's Latest OS, Ice Cream Sandwich matched with good hardware. And what's more, it wins our Best Performance crown because it steamrolls past the competition.Apps run smoothly, and 1080p videos ran without any hiccups. It also has one of the better keyboards when compared to the competition and the touchscreen is smooth and responsive.

The iBall Slide is a notable mention for a reason. Despite having an older generation OS, it performed extremely well on the benchmarks withstood everything we threw at it. The build too is very premium for the price you pay, something that has come about after the redesign. All in all, the device is a game changer! The BlackBerry Playbook on the other hand missed out the top spot by just a few points. It has great power under the hood, a premium build and one of the best multitasking tablet money can buy. Where it lacks out is in the OS and the apps.



Wishtel ira thing

INTRODUCING KARBONN SMART TAB 1



A plethora of low-cost Android tablets have hit the Indian market recently. Micromax, Zync, HCL have all launched their budget tablets in India. Karbonn Mobiles, another Indian manufacturer, has decided to make a significant dent into the Indian tablet market by offering an attractive 17.8 cm (7) Android 4.0 (Ice Cream Sandwich) tablet for the Indian masses. It's called the Karbonn SmartTab 1, and it offers features more than just meets the eye. Here's what Karbonn's smartest tablet has to brag about:

FEATURES

The Karbonn SmartTab 1 comes with a 17.8 cm (7) capacitive 5-point multitouch screen, which should be as good as any other tablet in its price bracket. The tablet runs on the most recent build of Android 4.0.3, Ice Cream Sandwich (ICS), Google's latest OS that gives access to thousands of the latest apps right out of the box via the Google Play Store which is integrated within the Karbonn SmartTab 1. What's more, a powerful 1.2 GHz processor ticks at the heart of the 17.8 cm (7) screen tablet, this should ensure enough firepower to run the latest apps and make multitasking a breeze. The Karbonn SmartTab 1 also comes with a solid 3700 mAh battery giving you more than desirable battery life which gives upto 7 hours of Internet surfing, upto 8 hours of video playback on earphones and upto 25 hours of music playback on earphones; possibly performing better than competing tablets sold at the same price point.

From a hardware perspective, the Karbonn SmartTab 1's standout feature has to be a mini HDMI port. Easily connect your tablet with an LCD TV through HDMI cable & watch pictures and videos of yourtablet on your LCD TV. The SmartTab 1 supports Full-HD playback up to 1080p smoothly. This means the tablet's display can be projected on a big-screen HDMI-enabled LCD TV without a hitch, if you like. A micro SD card slot for storage of up to 32 GB gives you immense space to store all the apps as well as your music, video and books library, all on one device. Also a USB port that can be used for a 3G USB dongle, keeping you connected on the go. Where most tablets offer only Wi-Fi 802.11 b/g connectivity, the Karbonn SmartTab 1 includes the faster 802.11n Wi-Fi protocol.

The tablet has a 2 megapixel front-facing camera comes with video-calling and advanced image capture support. Also the presence of a 3D gravity sensor on the Karbonn SmartTab 1 gives you a better and more immersive 3D gaming experience on the go. What else do you need?

WAIT, THERE'S MORE

The tablet comes built-in with Karbonn Smart Browser, it allows the tablet to compress data going to and from the device, reducing bandwidth usage by 85 per cent. The tablet also comes with useful third-party apps built-in, like PayTm (conveniently recharge mobile for all Indian mobile operators online) and Just Dial (one of the best local search engine). Including locally relevant content in the Smart Tab 1 is a really intelligent decision by Karbonn Mobiles, because as the hardware war becomes redundant, consumers will look towards additional value adds to make their buying decision.

SUMMARY

The Karbonn SmartTab 1 tablet is competitively priced at just ₹6,990, which is close to the competition. Its price hits the sweet spot where it's not out of the reach of the budget consumer. Yet it also packs in quite a punch, compared to rival tablet offerings at the same price, seemingly giving you a very good bang for your buck.



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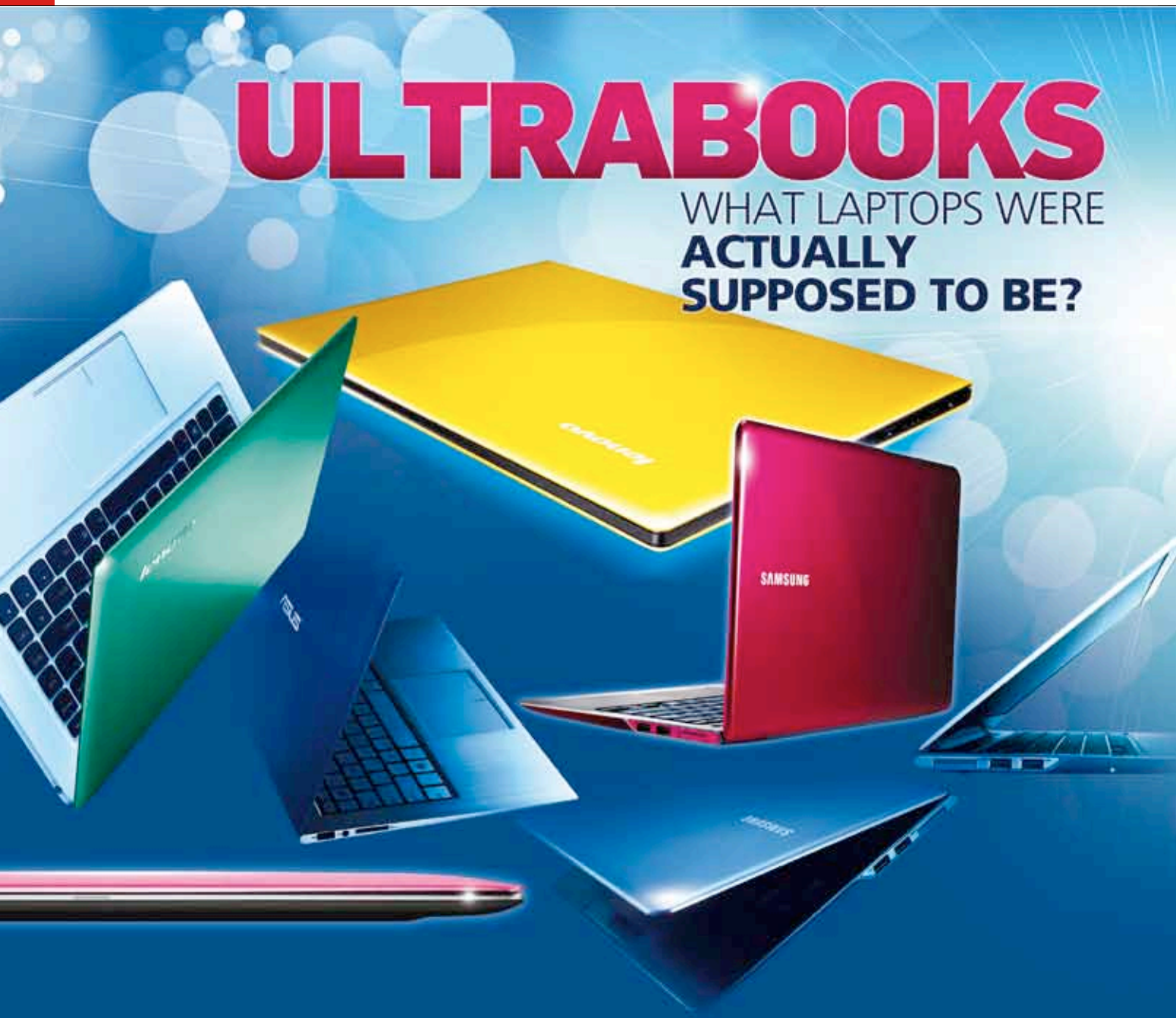


Instagram cheating
Most of the shots posted from the app are taken with professional lenses and edited in Photoshop **http://dgit.in/JY4a5d**

Security concerns over VoIP
Difficulties in locating the source of VoIP callers forces the government to ask service providers for a solution; causes security concerns in J&K **http://dgit.in/IOV6Q1**

ULTRABOOKS

WHAT LAPTOPS WERE ACTUALLY SUPPOSED TO BE?



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Vishal Mathur
vishal.mathur@thinkdigit.com

Ultrabooks are the future – or so Intel wants us to believe. We've always believed all along that ultrabooks are what laptops were supposed to be in the first place, before they went all over the place – desktop replacement, gaming laptops, business laptops, home entertainment laptops, etc. What the confusion did was take the focus away from the slim and light aspect.

Intel came along and clearly defined on paper what an actual slim laptop – the ultrabook – would be like. No wonder, considering that it's serious about rivaling Apple and the first true device of this kind – the MacBook Air.

WHAT ARE ULTRABOOKS?

An ultrabook is technically not a separate category of devices. It is just an extension of the good old laptop. Intel had done something on similar lines with the Centrino platform some years ago, but the guidelines were quite fluid at that time. This time around, learning from the ultrabooks' experience, it's a concerted effort to take on the Apple MacBook Air. Clearly, to be considered an ultrabook, the machine has to be within the 2 cm thickness bracket, we have

latest gen Intel Core-i processors and will usually do away with an optical drive but should ideally have a Solid State Drive to help with the quick start aspect.

COMPARISON WITH MACBOOK AIR

The likes of the Dell XPS 13 are actually better in terms of sheer performance, but HP Folio and the Toshiba Portege come close. Apart from that, the others have some catching up to do. To give you a direct comparison, we loaded up a MacBook Air 13 with Windows via Bootcamp, and ran the same set of benchmarks on it. While technically, the MacBook Air isn't a part of this test, it shows up in the specs table, to let you compare benchmark scores with the ultrabooks.

BUILD AND DESIGN

Let us get this out of the way right at the beginning – it has been alleged that some ultrabooks (namely the Dell XPS 13) have completely ripped off their designs from the Apple MacBook Air. We, quite frankly, don't think that's the case. Admittedly it does take design cues, but when manufactures are working within such tight parameters, resemblance to a rival gadget is bound to happen.

Since we're talking about it, let us illustrate the **Dell XPS 13** in detail. There's no other way of saying this, but the XPS 13 is by far the classiest ultrabook among all. The minimalist design heightens the classy design. Keeping the bezel around the display to a minimum not only reduces the footprint, but also brings it closer to achieving an edge-to-edge display effect. It has a comfortable keypad and surprisingly big touchpad, but while marked out clearly, the right and left click buttons are integrated. Giving you a break from the matte black finish is the border of chrome around the XPS 13, which adds a bit of shine. Ports are spread over both sides, but there's no optical drive and it misses out on a card reader as well. Turn it over, and you'll see that the base is made of carbon fibre.

HOW WE TESTED

This is how we test laptops for reviews conducted throughout the year in the magazine and online on the web site.

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 Home Premium 64-bit version of Windows 7 on all laptops. We then download and install latest drivers for all critical hardware on the laptop, and install the latest performance Windows updates. We do this to ensure that 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 – PC Mark Vantage, 3D Mark and CineBench are some examples of the benchmarks that we use to test and compare laptops. We also measure performance with a bunch of subjective tests consistent across all laptops – for instance watching a movie at fixed volume and screen brightness to drain out a laptop's battery.

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 actually comes bundled with, and scrutinize it for anything it promises to deliver but doesn't. We do this for all the laptops, against almost all the parameters that would affect your 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, materials used, quality and placement of hinges, keyboard quality and comfort, palmrest real estate, touchpad response quality, etc., and break it down exhaustively to arrive at a cumulative score for ergonomics, design and general usability aspects of the laptop. What we also have to critically check for is the quality of the display – more points and better viewing angles for the ones that aren't reflective. 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.



BEST BUY digit JUNE 2012

Brand	Acer	Samsung	Wipro	Lenovo	
Model	Aspire S3	Series 5	e.Go Aero Ultra	IdeaPad U300s	
Price (₹)	53,314	54,390	55,500	67,990	
Performance (out of 40)	17.41	19.09	12.93	23.40	
Features (out of 30)	17.62	19.37	19.89	16.96	
Build (out of 30)	16.13	23.06	16.50	21.94	
Overall (so 100)	51.15	61.52	49.32	62.29	
Processor	Intel Core i5-2467M	Intel Core i5-2467M	Intel Core i5 2467M	Intel Core i5-2467M	
Speed (MHz)	1600	1600	1600	2000	
RAM (DDR3)	4 GB	6 GB	4 GB	4 GB	
Graphics	Intel HD Graphics	AMD Radeon HD 7550M + Intel HD 3000	Intel HD Graphics 3000	Intel HD Graphics 3000	
HDD	500 GB	1TB	500 GB	128 SSD	
OS	Windows 7 Home Premium (64-bit)	Windows 7 Home Premium (64-bit)	Windows 7 Home Premium (64-bit)	Windows 7 Home Premium (64-bit)	
Screen Size (Inches)	13.3	14	14	13.3	
Type of Panel	LED backlit	LED backlit	LED backlit	LED backlit	
Screen Resolution (Pixels)	1366x768	1366x768	1366x768	1366x768	
Weight (kg)	1.35	1.5	1.3	1.33	
No of Ports (USB/Firewire)	2	3	3	2	
No of USB 3.0 (Y/N)	-	2	1	1	
Connectivity (LAN / Bluetooth / Wi-Fi)	N/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	
E-Sata / Thunderbolt (Y/Y)	N/N	N/N	N/N	N/N	
Display (HDMI)	Y	Y	Y	Y	
Headphone/Mic	Y/Y	Y/Y	Y/Y	Y/Y	
Memory Card Reader (Y/N)	Y	Y	Y	N	
Fingerprint scanner?	N	N	N	N	
Optical Drive (Y/N)	N	Y	N	N	
Inbuilt Webcam (Y/N)	Y	Y	Y	Y	
Benchmark scores & Performance					
PCMark Vantage Score	5244	5104	3467	9147	
Memory Score	2990	2994	2803	1921	
TV and Movies Score	3102	1556	2486	3703	
Gaming Score	3618	4080	4933	6590	
Music Score	4525	3953	1695	10317	
Communications Score	7216	6145	4511	9704	
Productivity Score	4554	4263	3869	10321	
HDD Score	2645	3595	5122	20599	
3D Mark 06 Score	3280	5228	3464	3457	
Maxxon Cinebench R11.5 (CPU Score)	1.94	1.94	1.8	1.93	
Battery Meter (in mins)	132	160	39	168	
Speaker volume (at 50%)	6.5	7.5	5.5	7	
Speaker clarity (at 100%)	6	6.5	6	6.5	
HD video playback test (So 10)	7	7.5	5.5	7.5	
4GB single file copy (secs)	111	121	145	53.7	
4GB folder files copy (sec)	179	145	220	89.1	
100 MB File Conversion (VOB-to-DivX) (secs)	59	81	78	44.7	

	HP	Dell	Toshiba	Asus	Apple
	Folio 13	XPS 13	Portege Z830	Zenbook	MacBook Air 13
	69,990	79,990	96,290	99,999	73,900
	29.21	34.80	23.25	22.05	24.66
	16.19	19.11	21.67	18.53	19.47
	21.19	22.50	19.31	17.25	23.81
	66.59	76.41	64.22	57.83	67.94
	Intel Core i5-2467M	Intel Core i5-2467M	Intel Core i5-2557M	Intel Core i7-2677M	Intel Core i5
	1600	2000	1700	2600	1700
	4 GB	4 GB	6 GB	4 GB	4 GB
	Intel HD Graphics 3000	Intel HD Graphics 3000	Intel HD Graphics 3000	Intel HD 3000 Graphics	Intel HD Graphics 3000
	128 GB (SSD)	128 GB (SSD)	128 GB (SSD)	256 GB (SSD)	256 GB (SSD)
	Windows 7 Home Premium (64-bit)	Windows 7 Home Premium (64-bit)	Windows 7 Home Premium (64-bit)	Windows 7 Home Premium (64-bit)	Mac OSX Lion / Windows 7 Home Premium (64-bit) on BootCamp
	13.3	13.3	13.3	13.3	13.3
	LED backlit	LED backlit	LED backlit	LED backlit	LED backlit
	1366x768	1366x768	1366x768	1600x900	1440x900
	1.5	1.35	1.1	1.3	1.3
	2	2	3	2	2
	-	1	1	1	-
	Y/Y/Y	N/Y/Y	Y/Y/Y	Y/Y/Y	N/Y/Y
	N/N	V	N/N	N/N	N/Y
	Y	N	Y	Y	N
	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y
	Y	N	Y	Y	Y
	N	N	Y	N	N
	N	N	N	N	N
	Y	Y	Y	Y	Y
	9205	11290	9966	8270	11705
	4944	6276	5720	4472	5878
	3841	4312	4027	3958	4341
	7268	8434	7566	7166	8236
	10402	14335	12101	9732	13213
	10094	10861	10202	7195	10750
	12259	15656	11796	11932	14512
	26072	47504	18937	13641	27961
	3453	4192	4267	3656	4327
	1.95	1.94	2.21	2.3	2.1
	280	159	147	113	182
	7	6.5	7	6	6
	7	6.5	7	6.5	7
	7.5	7.5	7.5	7.5	7
	45.1	22	71	51	61
	53.7	27	117	116.2	128
	44	45.4	39	36	38

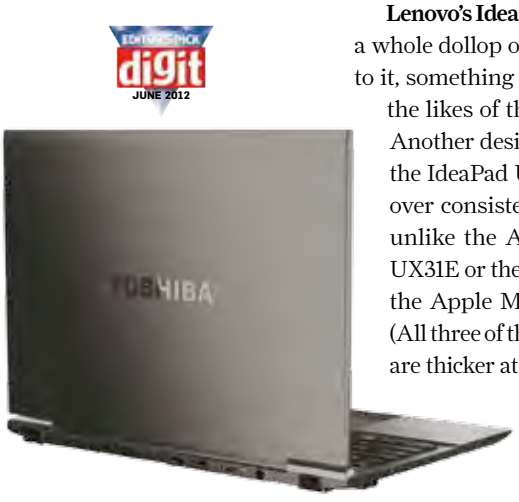
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http://dgit.in/LtGt5i

Bacteria good for computers
Researchers says that magnetic bacteria can help in making bio-computers in the future
http://dgit.in/JOfnzK

Something missing on most ultrabooks is a satisfactorily big cooling vent, something the XPS 13 does very well. It shows as well, because this one doesn't become as warm and noisy as some of the other ultrabooks after an hour of usage.

The **Samsung Series 5** uses a lid colour shade similar to Dell's XPS 13. The grey matte aluminium finish doesn't catch fingerprints, dust and scratches like glossy surfaces do. The rarely-used-on-ultrabooks optical drive is placed on the right side, and even that has a dual-layered design. Placement could have been better. Try picking up the laptop and you risk accidentally popping it open. On the opposite side are two USB 3.0 ports, an HDMI, Ethernet and even a VGA port as well as a combined port for headphone and mic. We were surprised by the quality of materials and the overall finish of the Series 5 – much better than expected.

Acer's Aspire S3 is the least expensive ultrabook around. Brushed metal finish on the lid is the first element pointing to that. Open it, and you'll notice that the colour combination is off. The grey finish is matched with a different (lighter as well) shade from the same colour family, and it looks plasticky, while in reality it actually isn't! The power button looks at you from just below the display, on the hinge shell – a unique place to put the power key. All ports are placed on the rear, taking advantage of all that space thanks to the display hinge mechanism. This leaves the sides looking very slim and clean, except a camouflaged card reader on one side and a 3.5mm jack on the other.



Toshiba Portege Z830

The **ASUS Zenbook UX31E** faces the same allegations as the Dell XPS 13 – it looks too similar to the MacBook Air. However, this 13-inch ultrabook has a finish like no other ultrabook in this test – its brushed metallic unibody design makes sure of that. It's one of the slimmest ultrabooks around, but still can't pip the MacBook Air 13. The Zenbook weighs 1.3 kg, and is lighter than the HP Folio 13, Samsung Series 5, the Acer Aspire S3 and Lenovo IdeaPad U300s. Keep sharp objects away from it, because it gets scratched easily. This is also the most expensive ultrabook in the test, and the build quality justifies that to a large extent.

Lenovo's IdeaPad U300s has a whole dollop of premium feel to it, something that surpasses the likes of the HP Folio 13. Another design highlight of the IdeaPad U300s is its all over consistent thickness – unlike the ASUS Zenbook UX31E or the Dell XPS 13 or the Apple MacBook Air 13 (All three of these ultrabooks are thicker at the hinges and thinner at the front edge). The IdeaPad U300s weighs and is just



Samsung Series 5 ultrabook

pipped by the Asus Zenbook (1.3 kg) to the finish line on that one. It has a polished metal exterior that's durable and robust on touch, and hinges that fuse the keyboard deck with the screen efficiently. The IdeaPad U300s' screen though might be a tad too thin, as it wobbles whenever you try to adjust the screen angle before coming to a quick rest.

HP's Folio has a brushed metal screen lid made of aluminum and coated with a classy tinge of champagne brown. Prop it open to reveal the same colour scheme and surface encasing the black keyboard deck. The HP Folio 13 is very well built. Touch and feel the HP ultrabook's surface and you feel you're interacting with a premium product. The only disappointment is its plastic bottom panel.

The **Toshiba Portege Z830** has a true ultrabook form factor, and so it isn't a surprise that this magnesium alloy chassis draped machine is by far the lightest ultrabook we've tested so far. Call it finding a niche amidst a niche. All ports are on the rear panel. What the left side spine does have is the dual jack combo for a headphone and mic, and an SD card reader. The right spine has the lone USB 3.0 port. The brushed metal finish of the lid looks classy, and the same theme continues for the palm rest and the area around the keyboard. Appreciate the generous real estate space on the touchpad, but the fingerprint sensor separates right-click and left-click keys, and a bunch of LEDs also get added into the mix. If you place the Portege Z830 on your lap and are typing out a document, you'll notice a very annoying display vibration at times – that's because the hinge isn't very taut. If you push the display a little further back, the problem considerably reduces. But at the optimum display angle, you'll ideally have to type less furiously! Despite using all the right materials and ideas, the Portege Z830 doesn't feel as premium as it should.

Wipro also jumped on the ultrabook wagon with the e.go Aero, but it doesn't feel premium in any way and leaves you with a sense of incompleteness.

FEATURES & PERFORMANCE

The Acer Aspire S3 has very humble performance figures. The display is reflective, but adequately bright and crisp to negate some of the reflections. It has a 500GB hard drive, something only the Wipro Aero matches, albeit they aren't SSDs.

The Asus Zenbook has the most powerful processor so it's surprising to find it being eclipsed by the likes of the Dell XPS 13, Lenovo IdeaPad U300s, HP Folio and Toshiba Portege.

Testing the Dell XPS 13 was an experience in itself. What was most surprising was the drive copy speeds. The keypad has a tinge of uniqueness to it – the keys are wider than standard keys. The touchpad is a bit iffy at times in terms of

response, but the biggest disappointment is the extremely reflective display.

With a PCMark Vantage score of 9147, the Lenovo IdeaPad U300s lands close to the HP Folio 13. Throughout our benchmark results, the Lenovo IdeaPad U300s highlighted impressive multi-tasking capability, apart from very good multimedia potential as well. The 13-inch Lenovo ultrabook has the screen and onboard speakers combo to deliver a high quality personal entertainment experience, including smooth, jitter-free HD 720p and 1080p files playback. Has the second best battery life, after the HP Folio.

Just as with the price and the build quality, Samsung Series 5 has kept the mid-range theme intact with its choice of processor. The performance throughout is quite good, and the laptop doesn't slow down when multi-tasking. A bright 14-inch display is going to be very good for multi-media usage. Essentially, the Series 5 is competing against the Acer Aspire S3, and edges ahead as far as raw performance is concerned. Its optical drive is almost a novelty! The Portege Z830 performs close to the Lenovo IdeaPad 300s and the HP Folio 13. Clearly, the Portege Z830 is meant for everyday computing with a heavy dose of grunt. When not stressed, the Portege is as silent as a church mouse. Wipro's performance is by far the slowest, especially when replicating a daily usage scenario on it. Disappointing.



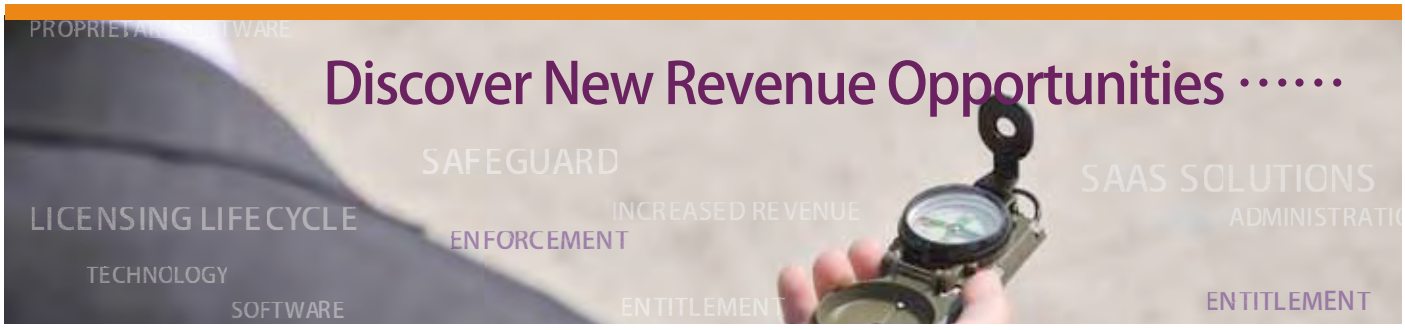
Dell XPS

WINNERS

The undisputed performance winner is the Dell XPS 13, with the second placed HP Folio quite some way behind. Yes, the XPS did lose out in the features section, with the Toshiba Portege, Samsung Series 5 and even the Wipro Aero Ultra doing well. Toshiba earned points due to its larger RAM size, and a biometric sensor. Samsung offers more RAM and an optical drive – a rarity on ultrabooks. At ₹53,490, the Samsung Series 5 is our Best Buy. The feature set is essentially that of a laptop, while it also having creditably in an ultrabook form factor. Toshiba truly surprised us with the steady mix of performance, looks and the feature set, winning the coveted Editor's Pick award this month.

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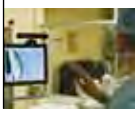
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Travel zoom Shootout:

WHICH ONE'S WORTH YOUR MONEY?



We compare the most popular travel zoom cameras out there to find out which is best for you

Swapnil Mathur
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There was once a time when the choice of cameras available to the consumer were severely controlled by the manufacturer, but times have changed and how! Today, camera makers must dance to the consumers' tunes as far as deliverables are concerned. A kind of camera that could fit a near telescopic lens into a body that would slip into your average jeans pocket is what the masses demanded. Panasonic delivered them the Lumix DMC-TZ1, the first pocketable camera with a 10x optical zoom. The TZ1 ruled the turf for a while, but it wasn't long before the market was flooded with innumerable options. This was back in 2006 and here we're sipping drinks in 2012. Technology has improved we decided to go out and pick up every travel zoom available and see which is worth it.

BELOW ₹16K

This category can be considered the "budget" category for the travel zoom cameras. We pit cameras that cost ₹13K against

FEATURES AND DESIGN

In this category, the Nikon Coolpix S8200 and S6300 sport the highest pixel count of 16 million, with the Samsung WB150F and Panasonic DMC-SZ7 housing a modest 14-megapixel sensor. For some odd reason, the more expensive Panasonic DMC-TZ25 has a lower megapixel count than the SZ-7 (12 vs. 14).

But when considering a travel-zoom to splurge on, the obvious spec we look for would be the optical zoom number. The Samsung WB150F brought a rock solid 18x optically stabilized lens to the game, the star among the competition.

So you have a fat megapixel count and you can zoom till the moon. But can your camera shoot like a machine gun? Apparently it can! Thanks to incorporation of electronic shutters in point-and-shoot cameras, the burst mode on these little things has gone up from a measly 2 FPS to Nikon's claim of 6 FPS, and Panasonic's 10 FPS. There was a time this was possible only in high-end DSLRs and now, for under 17K, even you can shoot off 10 frames per second. Simply amazing. The feature set other than the zoom and megapixel count on all the cameras is fairly standard, except that the Panasonic DMC-TZ25 has a touch screen that can be used to work with the menu and select the focusing point.

ERGONOMICS

Before you finally spend that hard earned cash on the camera you're supposedly lusting for, wouldn't you love to hold and see if it feels right? We know we would. One of the most important aspects of being able to take good photos is making sure that the camera fits well in your hands, that the buttons and menus on the camera can be easily accessed with minimal camera movement. The dimensions of the camera relative to the size of your hand matters, as does the weight of the camera.

In our testing, we found that the Nikon Coolpix S6300 felt like a cheap toy camera. Its plastic build did not feel sturdy at all and every time we opened the battery compartment to swap out the battery, we felt that it might just snap off. The Nikon Coolpix S8200, though heavier and longer (and even having a much better build) did not give us any mental ease about its capabilities of withstanding an accidental fall. The

HOW WE TESTED

We broke up the category into two segments; Cameras below₹16,000 and cameras above ₹17,000. We broke up our testing into two types; "real world photos" and "studio setups". For the real world test, we strolled over to a garden close-by for its varied offerings of texture, architecture, people, foliage and landscape. For each shot that was taken, the camera was tripod mounted, switched to Program mode (if available). White balance was left on Auto to gauge color rendition under real life situations and ISO was set to 400.

The first test involved testing the image quality (and dynamic range) at both the wide and the maximum optical telephoto length of the camera. Our second test involved testing the camera's ability to capture detail and



Studio setup for performance test

texture, along with seeing how much distortion is generated at the widest angle of the camera. The third test involved a simple macro shot of a flower. Thankfully, there was no wind, so we didn't have to worry about movement on the flower's part. The macro test allowed us to not only gauge each camera's minimum focusing distance, but also the pixel quality of images shot at close up distances. Our fourth and final test was shooting bright screen foliage that was in shade, with the sun right in front of us. The idea is to see how well the camera can judge the shadow areas and then expose for them, while recreating accurate greens and retaining detail in the shadows and highlight areas.

The second leg involved shooting a studio setup of objects that help evaluate aspects of center and edge sharpness, flash effectiveness, ISO performance, detail retention and color reproduction. While judging ISO performance for us was the retention of detail. We used the text on the crayon labels as a guide to how much detail was preserved after in-camera noise reduction was applied.

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Google Play records new high

Google Play has surpassed 15 billion downloads, expects to make $35.9 million from its app store
http://dgit.in/IGQsnh

Brand	Nikon	Samsung	Panasonic	Nikon	Panasonic	
Model	**Coolpix S6300**	**WB150F**	**DMC-SZ7**	**Coolpix S8200**	**DMC-TZ25**	
Price (Rupees)	**12450**	**12900**	**12990**	**14450**	**15990**	
Features (Out of 20)	**4.35**	**9.76**	**5.34**	**7.69**	**10.52**	
Still Image Performance (Out of 40)	**22.64**	**19.32**	**21.84**	**23.96**	**27.92**	
Video Performance (Out of 30)	**15.96**	**17.22**	**18.06**	**17.61**	**18.33**	
Build Quality (Out of 5)	**2.5**	**3**	**4**	**3.75**	**4**	
Ergonomics and usability (So 5)	**3.2**	**3.6**	**3.8**	**3.4**	**3.9**	
Grand Total (Out of 100)	**48.65**	**52.9**	**53.04**	**56.41**	**64.67**	
Specifications						
Sensor resolution (MegaPixel)	16	14	14	16	12	
Optical Zoom	10x	18x	10x	14x	16x	
ISO (low)	125	80	100	100	100	
ISO (high)	3200	1600	1600	3200	3200	
Auto Focus system	Contrast Detect AF	Contrast Detect	Contrast Detect	Contrast detect	Contrast Detect AF	
Manual Focus (Y/N)	No	Y	N	Y	N	
Macro focus range (cm)	10	5	4	1	3	
White balance presets	5	5	4	5	4	
Aperture range	f/3.2-f/5.8	f/3.2-f/5.8	f/3.1-f/5.9	F/3.3 – F/5.9	f/3.3-f/5.9	
Built-in Flash (Y/N)	y	Y	Y	Y	y	
Aperture priority (Y/N)	N	Y	N	N	Y	
Shutter priority (Y/N)	N	Y	N	N	Y	
Continuous Drive (frames per second) (at max resolution)	6	Unlimited	10	6	10	
GPS (Y/N)	N	N	N	N	N	
LCD size (inches)	2.7	3	3	3	3	
LCD Resolution (dots)	230,000	460000	460000	921000	460000	
RAW (Y/N)	N	N	N	N	N	
Microphone type	Stereo	Stereo	Stereo	Stereo	Stereo	
HDMI out	Y	N	Y	Y	Y	
Max Video capture resolution	1920x1080	1280x720	1920x1080	1920x1080	1920x1080	
Battery Type (AA, Li-ion)	Li-on	Li-on	Li-ion	Li-ion	Li-on	
Battery Life (Manuf rated no of shots)	200		220	250	260	
Performance Scores and Benchmarks						
High ISO tests (So 10)						
ISO 200	7	7	6	8	8	
ISO 400	7	6	6	7	8	
ISO 800	6	5	5	7	7	
ISO 1600	6	4	4	5	7	
ISO 3200	5	3	4	5	6	
ISO 6400	3	-	3	4	-	

	Nikon	Panasonic	Sony	Nikon	Panasonic	Canon	Sony	Canon
	Coolpix S9200	**DMC-TZ20**	**DSC-HX10V**	**S9300**	**DMC-TZ30**	**SX240HS**	**DSC-HX20V**	**SX260HS**
	17950	**17990**	**17990**	**18950**	**19990**	**19995**	**22990**	**22995**
	4.66	**11.54**	**7**	**6.04**	**11.22**	**10.06**	**8.53**	**11.12**
	25.28	**24.48**	**27.36**	**26.76**	**30.36**	**30.88**	**30.8**	**30.88**
	18.72	**17.16**	**19.98**	**20.28**	**21.09**	**22.14**	**21.81**	**22.14**
	4	**4**	**3.75**	**4**	**4**	**4**	**4.25**	**4.5**
	3.6	**3.9**	**3.8**	**3.6**	**3.9**	**4.2**	**3.7**	**4.2**
	56.26	**61.08**	**61.89**	**60.68**	**70.57**	**71.28**	**69.09**	**72.84**
	16	14	18	16	14	12	18	12
	18x	16x	18X	18x	20x	20x	20x	20x
	125	80	100	125	100	100	100	100
	3200	1600	6400	3200	3200	1600	6400	1600
	Contrast Detect AF	Contrast detect	Contrast detect	Contrast Detect AF	Contrast Detect AF	Contrast detect	Contrast detect	Contrast detect
	No	N	N	No	N	Y	Y	Y
	4	3	5	4cm	3	5	1	5
	5	4	7	5	4	6	7	6
	f/3.5-f/5.9	F/3.3 – F/5.9	f/3.3-f/5.9	f/3.5-f/5.9	f/3.3-f/6.4	f/3.5-f/6.8	f/3.2-f/5.8	f/3.5-f/6.8
	y	Y	Y	y	y	Y	Y	Y
	N	Y	N	N	Y	Y	N	Y
	N	Y	N	N	Y	Y	N	Y
	6.9	10	10	6.9	10	2.4	10	2.4
	N	Y	Y	Y	Y	N	Y	Y
	3	3	3	3	3	3	3	3
	921K	460000	921000	921K	460000	461000	921000	461000
	N	N	N	N	N	N	N	N
	Stereo	Stereo	Stereo	Stereo	Stereo	Stereo	Stereo	Stereo
	Y	Y	Y	Y	Y	Y	Y	Y
	1920x1080	1920x1080	1920x1080	1920x1080	1920x1080	1920x1080	1920x1080	1920x1080
	Li-on	Li-ion	Li-on	Li-on	Li-on	Li-on	Li-ion	Li-on
	200	260	320	200	260	230	320	230
	8	7	8	8	8	8	8	8
	8	6	8	8	8	7	8	7
	7	6	8	7	8	7	8	7
	6	5	7	6	7	6	7	6
	5	-	6	5	6	6	6	6
	5	-	5	5	-	-	6	-



Fastest selling PC game
Diablo III has set a record for the fastest selling PC game to date.
http://dgit.in/KFRPQd

Now create objects using light
An high defination 3D printer called B9Creator lets you to create objects using light
http://dgit.in/KjOLKK

Panasonic pair felt well made, almost metallic thanks to the use of high grade plastic and the finish. The SZ-7 particularly caught our interest, being slimmest of the lot. And then there was the Samsung, which seemed too plastic for our taste, but the interesting aspect about the build is the solid metal ring around its lens. This made the camera's front very heavy.

PERFORMANCE

The first thing we did was setup a tripod and fire off the cameras aimed at a bush, zoomed in at their maximum focal length. The process of zooming was smooth and paced comfortably; the cameras locked focus quickly and on the intended part of the scene and even the exposures were more or less spot on. However, when we viewed the images on our monitor at 100 per cent, we noticed severe JPEG artifacts. Sadly, we observed this behavior in every single camera we tested



Panasonic DMC-TZ30

in this category. Image quality at the telephoto end does take a serious hit.

Macro photography is something that we can say for sure that everyone with a point-and-shoot has tried to do. We found ourselves a nice little flower and set our cameras to macro focusing mode. Looking at the images, we can say that the Leica lens is adding some serious good optics to the Panasonic cameras in our test. While the Nikons and the Samsung WB150F showed noticeable distortion at minimum focusing distance, along with what we'd consider lack of sharpness, both the DMC-TZ25 and the DMC SZ-7 performed exceptionally. When it came to ISO performance, all cameras delivered noise free images in our test, but due to the noise reduction, there was a severe loss in detail, evident even at ISO 400, but quite pronounced at ISO 1600 and above. While all the cameras in our test went up to ISO 6400, the Panasonic DMC-TZ25 and the Samsung WB150F retained ISO 3200 as their highest, a logical choice seeing as how their performance tops out at that level.

The clear winner here was the Panasonic DMC-TZ25, with maximum detail retention at high ISOs. The Nikon S8200 scored the same amount as the TZ25, but that was due to a higher lower ISO score, but at higher ISOs, the Panasonic definitely shines. In the overall image sharpness department, the results were again in favor of the Panasonic, with the Leica lens retaining great sharpness at the center and the edges of the scene better than any other camera in the bracket.

While most of them managed near excellent center



Panasonic DMC-SZ7

sharpness, it's the edges where the Panasonic outshone everyone else.

VERDICT

The Panasonic SZ7 wins our hearts as the "Best Buy". The slightly more expensive Panasonic DMC-TZ25 is our "Editor's Pick", offering the best performance in the category. So if you're someone who's willing to spend a little extra, then this is the best you can get under ₹16k.

ABOVE ₹16,000

We pit cameras ranging from ₹16,999 to ₹22,990 and we sure got some interesting results. With the cost factor rising, it is only natural that our expectations from these higher end travel zooms increase as well.

FEATURES AND DESIGN

At the heart of a camera lies the imaging sensor, and all these cameras employ the newly developed Back-Illuminated Sensors to produce noise free images even at higher ISOs. However, they all most have a differing megapixel count, with Sony's HX20V and HX10V boasting an 18-megapixel sensor and Canon SX260HS and SX240HS with a modest (and lowest) 14-megapixel ticker. The Nikons and Panasonics have stuck to a 16-megapixel sensor. We have always asserted that a larger megapixel count doesn't necessarily mean better image quality, especially since the size of the sensor in a point-and-shoot is extremely small. Fitting too many pixels into such a tight space does lead to some degradation in quality, but the new BSI sensors (or Back Side Illuminated) have been designed specially to deal with that problem. Sort of. In the optical zoom department, 20X seems to be the standard with Canon SX260HS, SX40HS, Sony HX20V and Panasonic DMC-TZ30 sharing that number.

The Nikon S9200, S9300 and the Sony HX10V settle in at a comfortable 18X. What's nice about the modern day travel zoom is the fact that image stabilization that used to be once a feature restricted ONLY to very expensive DSLR lenses, is now finding itself being implemented in almost every point-and-shoot. Sony and Panasonic's DSLRs have a sensor shift based stabilization system, yet, their travel zooms are using the lens-shift system of stabilization. An interesting addition to the cameras in this bracket is the addition of built-in GPS chips, for easy geotagging of your images. You can even find dedicated image processing chips in these cameras, like Canon's Digic 5 processor, or Nikon's Exceed or Panasonic's Venus Engine that help with cleaning up the raw information from the sensor and writing it into a nice, well toned image onto your SD card. These chips are also the reason manufacturers have been able to infuse their cameras with insane burst modes.

ERGONOMICS

From all that we have held, we can safely conclude that

all eight cameras in this segment employ plastic as their material of construction. However, it should be noted that none of them felt so. This isn't just because of the glossy finish like the one on the Nikon S9300, or the brushed metal look of the Sony HX20V, but mostly because the plastic is of extremely high quality, with both bulk and weight to give the cameras a sturdy build, without taking away from their pocket friendly nature.

We liked the Nikon S9300's design a LOT. We shot with it for a few days and noticed that we hardly ever used our second hand for operations.

One of the quirks we've always have with point-and-shoots has been the quality of buttons. Previously, they've all, for the most part, felt cheap, like they might just fall off at any point. With these cameras, we felt absolutely confident that the tiny pocks of plastic could withstand our abuse (think using it like a controller for a first person shooter).

PERFORMANCE

Now the fun part! In our real world test, we found that the Sony cameras produced the most well saturated images, even under the bright mid day sun, though at the cost of some dynamic range. Canon's tended to expose more for the highlights, causing the shadow areas to be slightly darker, but the Panasonic TZ30 impressed us with very well balanced highlights and shadows, all while maintaining excellent contrast and color saturation. We'd like to take out a minute to point out that while multiple cameras from the same manufacturer are different in many respects, the Canon SX260HS and Canon SX240HS are absolutely identical in terms of their imaging specifications. The only difference between the two is that the SX260HS comes with a built-in GPS chip while the latter does not.

For the macro test, we found that distortion at the minimum focusing distance (the lowest being 1cm on the Sony HX20V and most on the Canons (5cm). Interestingly, despite the disparity in the minimum focusing distance, the level of distortion on both the cameras is significantly low, almost negligible if we may say. The Nikon S9300 managed the same low level of lens distortion, although



Canon SX240HS

the pixel clarity was slightly lower than the Canon. Moving out of the scorching sun and into the studio, we turn up the ISO, lower the lights and see how these eight contestants fare. While ISO 200 and 400 yield the same image quality in terms of noise (and JPEG Artefact), its around ISO 800 that we start seeing differences in image quality and how the megapixel count on the BSI sensor measures up to the physical space. As it turns out, most of these cameras have more of less the same noise performance, however, the difference crept in with the amount of detail retained at high ISOs.

The sharpness test revealed that the Sony HX20V and the Canon siblings maintained maximum sharpness throughout the ISO range, but the Canons also maintained more detail in the edges than the Sony. However, the Panasonic TZ30's detail retention was the highest, with the minutest of fibers being individually visible on the bear and the text on the wine bottle being visible (even the sub-title).

VERDICT

The "Best Buy" happens to be the Canon SX240 HS, it's simply the best performing camera of the lot and left us highly impressed. It matches the Sony HX20V in performance, while packing in a smaller price tag, making it the obvious winner for us. As it also happens, the Canon SX240 HS is the overall Best Performer from all the cameras tested (in both categories), edging the Sony HX20V by virtue of some minor, but important specifications, such as a faster shutter speed and a lighter body. So yeah, one camera walks away with two awards which doesn't happen very often.

Canon has the option to work with an external flash, which was a unique aspect among other cameras. While the SX260 HS dons the crown of Editor's Pick, the Nikon S9300 wins our hearts with its amazing ergonomics, but also the sturdy build and excellent performance.



Apple files for new patent
Apple has filed an application with U.S. Patent & Trademark for an optica stylus pen patent

Android wins battle of patents
The case against Oracle's claims that Google had trampled on its intellectual property rights to the Java programming.

Sony Xperia S

We're surprised this didn't come with Android ICS



Specifications

Platform: Android 2.3; **Processor:** Qualcomm MSM8260 Snapdragon 1.5GHz dual core, 1GB RAM; **Display:** 4.3-inch LED, 1280 x 720 pixels; **Storage:** 32GB on board; **Camera:** 12MP with 1080p videos; **Battery:** 1750mAh

Contact

Sony Ericsson India
Phone: 1800-111-800
Website: www.sonyericsson.com
Price: ₹32,549

8.0/10

Features	7.0
Performance	7.0
Build Quality	9.0
Value for Money	9.0

The Xperia S has a very premium build quality. It feels worth the price, and at no point of time do its looks betray its cost – in other words, its looks match the price point. The transparent strip running below the display is the only break from the darkness of the piano black glass. Labeled on this transparent strip are the three icons – return, home and options. However, the actual keys are the touch-sensitive ones just above the strip, indicated by three tiny dots. Compare either side of this glass; it's like the city of Liverpool divided by the Mersey River – completely different from the other. While the show-stealer is the dark shiny bit around the display, the rubberised finish below it adds a contrasting dimension. Also, this rubberised finish goes all the way around to the back – helping with the grip. Sony hasn't given the Xperia S the unibody design goodness, which means that the rear panel can be opened to access the micro SIM slot. However, the battery is locked away from user access.

If you look very carefully into the transparent strip, you'll notice a diagonal grid running through almost the entire length of the strip. Sony says that this is a part of the antenna system on the device.

Sony has clearly decided not to be a part of the quad-core processor wave, perhaps focusing more on functionality than anything else. This one comes with a dual-core processor, and on paper, that is a bit weak for a flagship device. But performance is stable for the most part, and will improve once Android is updated.

The Xperia's 4.3-inch display has a 720p resolution. Immediately, compare it to any AMOLED display and you'll notice that while the colours don't jump out at you, they're a lot more natural. Black levels are quite deep, but AMOLED again has a slight advantage. However, gradation is a bit of an issue that you'll see with most images where colours are in bands. Apart from that, the sharpness of the display is impressive. Text looks very crisp and readable, and there is no edge noise problem when you zoom in to text. While the display is natively quite bright, we were a bit perplexed to find that there's no automatic brightness setting.

The build quality is brilliant overall, with a definite premium feel to it. Fits well in the hand, despite multiple curves and flat areas converging on one front. The transparent strip silently brings in a bit of illumination to an otherwise dark "yet another phone" design.

Timescape UI will get a major overhaul with ICS, but the current one is workable to the extent that it gets the job done without inspiring any visual goodness. Compared to the HTC Sense, Timescape feels very boxy, limited in widget range and just a bit drab. Hopefully, the new one will give you a completely different experience.

The 12MP camera on the Xperia S is a bit of a mixed bag. First off, the hardware key will take you straight to the camera, even if the phone is locked. We don't think that the camera is very well placed. It's too far towards the top, and when you're holding the phone in landscape mode, chances are you'll have to reposition your fingers against what they'd naturally do. Image quality is a case of two very distinct halves. If you're using this to take shots in daylight, the 12MP clicker will be a delight to use for the most part – detailed shots, with a dollop of crispness and good colour depth. However, zoom in on an object and you have a problem – the clarity is severely compromised by noise. For night shots, you'll have to factor in severe shutter lag, and zooming in makes Image Stabilization less effective.

Can take 3D panorama shots as well, just like most Alpha NEX cameras do. Videos are clear for the most part during daytime, but do suffer from a bit of judder, and video stabilisation isn't very effective, even at literally no zoom. In night videos, you'll get a whole lot of noise and the zooming effect isn't very smooth either.

With a standard usage pattern, the Xperia S battery will last you a bit more than a day. With the inevitable ICS update, expect this to improve very slightly.

Sony really needs to push the ICS updates out of the door, very quickly. The Xperia S seems to have everything in place – good hardware, excellent build quality and design and a very good display. However, the UI needs to be sorted. But with the ICS update inevitable, this is a pretty decent device to buy.

Vishal Mathur

Nikon 1 V1

Appeasing that need for speed (and accuracy)



The V1 is Nikon's top-end player in the mirrorless camera segment. It employs magnesium-alloy as the choice of contraction material, lending it a very solid feel. The camera feels sturdy to hold, yet doesn't feel overtly heavy. The base of the camera is made of high-grade plastic that does not feel flimsy in the slightest.

A proprietary 10 megapixel sensor with hybrid-contrast-phase detect delivers stunning image quality and handles high ISO's rather well. The noise looks more like film grain and often lends an elegant feel to the image. The focus system is one of the best we've seen so far in a mirrorless camera, with the ability to acquire and track subjects rather quickly. Did we mention it performs just as well under low levels of lighting?

The camera also boasts of dual shutters (mechanical and electronic) that can be conveniently switched at will to compensate for the shortcomings of one another. While the mechanical shutter gives the more traditional experience, the electronic shutter (in Hi mode) enables the shooting of an insane 60 frames per second. Now before you go ahead and claim blasphemy, let us elaborate. The electronic shutter does shoot 60 frames per second (34 RAW frames till buffer is full), however, the focus AND the exposure is locked for the first frame, allowing the mode to be only used when the subject and the camera are not moving (or moving so perfectly that their relative motion is equal to zero. Physics nerds UNITE!)

After spending a considerable time with the V1, it seemed like Nikon had focused all its energies on developing a capable sensor and in the process, made some ridiculous design blunders. Firstly, we were taken aback to see that the PASM modes were not accessible through the mode dial. These modes can only be changed through the clunky and cluttered menu system. Secondly, where there should have been an on-camera flash, we found a proprietary port. Nikon wants you to shell out extra dough just to be able to shoot in low light. Oh, and the existing Speedlights from Nikon are not compatible (maybe an adapter will appear sometime in the future, but we wouldn't hold our breath).

The Nikon 1 system is in its nascent stages. The proprietary sensor means that you can only attack Nikon's 1-system-compatible lenses to the V1. The four lenses available for the Nikon 1 system are the 10-30mm F3.5-5.6 VR, the 30-110mm F2.8-5.6 VR, the 10mm F2.8 pancake and the (comparatively) enormous 10-100mm F4.5-5.6 VR power-zoom. Given the V1's 2.7x conversion factor, we find the wide end to be severely lacking. Not to mention the lack of fast primes is a little disappointing. However, the icing on the cake is the fact that none of the lenses have a built in manual-focusing ring.

Shooting with the V1 feels like you're using a very well built point-and-shoot. For a camera that is supposed to serve as a DSLR replacement, the V1 lets us down in its severe lack of (or rather inconvenient) manual controls. However, the additional electronic viewfinder with its 1440K dot resolution is definitely a delight to look through, making us wish that other manufacturers would implement the same in their mirrorless cameras. An eye-sensor next to the viewfinder also helps switch automatically from the 920K LCD display to the viewfinder when the camera reaches eye-level.

The Nikon V1 is priced at a whopping ₹45,450 with a 10mm-30mm lens, which is a somewhat regular price range for a mirrorless camera. However, other manufacturers offer a lot more for the price, especially if you're investing in one of the four-thirds mount system like the Olympus PEN E-P3, which has a far better selection of lenses and definitely feels a lot SLR-like to use. However, if your primary concern is getting the best focusing system, a sensor that resembles the quality of a bigger four-thirds sensor up to ISO 3200 and can shoot 5 frames per second with auto-focus and exposure correction, then the Nikon V1 might be your only option.

Swapnil Mathur

Specifications

Sensor: Proprietary CX-format (1-inch) sensor; **Resolution:** 10 Megapixel; **Lens Mount:** Proprietary; **ISO range:** 100-6400; **Focus system**: Hybrid Contrast-phase detection; Burst Mode: 60/30/5 frames per second

Contact

Nikon India Private Limited
Phone: 0124-4688500
Fax: 0124-4688527
Email: nindsales@nikonoa.net
Tech Support:
0124 4688500 (North)
080 42450500 (South)
033 40218500 (East)
022 40925555 (West)
Price: ₹45,450

6.0/10

Features	6.0
Performance	6.0
Build Quality	6.0
Value for Money	5.0

Charging from your feet
An entrepreneur in Kenya has developed tech that charges mobile/ipod devices while walking or running
http://dgit.in/JLYtYF

No Skype for Lumia 610
Nokia said that the quality of performance is not upto the par with the company and Skype's expectations

Sony Vaio S-series

A lot of potential, but some things need to be set right first

The dark chocolate brown color with the glossy finish will make you either check out your reflection and/or make you wince in exasperation. Open the lid of the Sony Vaio S, and you now see a different shade of brown, almost bordering on Golden!

Not surprisingly, the Vaio doesn't feel as quick as you'd think – Sony preloads the machine with a bunch of crapware, mostly its own applications. Even when using Windows like you would on a day-to-day basis, it feels slow.

During the testing process, the preloaded Windows on the Vaio crashed. But horror of horrors – the restore discs installed a 32-bit version, though this laptop comes with a 64-bit OS preloaded! All the slowdown issues cleared up when we did a clean installation of Windows on the machine.



The 13.3-inch display (WXGA++ 1600x900 pixels) is an absolute delight – matte finish is a welcome change from the reflective ones we've seen on laptops. The brightness is impressive, but could have done with a bit more depth to the black levels.

Battery life turned out to be a huge disappointment. On the dedicated graphics (Speed), the battery ran out of juice in 58 minutes. We tested the battery life with the on-board graphics (Stamina mode) and it ran out completely in 1 hours and 26 minutes.

The Vaio S-series (VPCSA35GG/T) has a combination of good performance and build plus a very slim form factor – everything seems right for it, potentially. However, the low battery life and high price could be an issue for some potential buyers.

Vishal Mathur

Specifications

Processor: Intel Core i7-2640M @ 2.8GHz; **RAM:** 6GB; **Display:** 13.3-inch (1600x900 pixels); **Graphics:** AMD Radeon HD 6630M / Intel HD 3000; **Storage:** 750GB HDD; **Optical drive:** Yes

Contact

Sony India
Phone: 1800-103-7799
Price: ₹ 79,990

6.5/10

Features	8.0
Performance	7.0
Build Quality	7.5
Value for Money	6.0

Huawei Honor

Indications for the future are bright

Lying on the desk, it looks like a typical mid-range Android smartphone. Powering the Honour is the 1.54GHz single-core processor, with 512 MB of RAM. The performance is adequate, and there'll be no stutter or hiccups as you go along. Even with a single-core processor, we were surprised at some of the good benchmark scores – Honour stands up to the likes of the Sony Xperia S and the HTC Sensation.

The 4-inch display has a basic resolution of 480x854 pixels. The colours are subdued, and could have done with a bit more depth as far as black levels are concerned. However, the text on the display is very crisp, which helps with reading.



This 8MP camera will do decently well if the ambient lighting is good. There's a lot of shutter lag when taking shots in low light or at night. However, the images either have considerable smearing (probably due to the processing that is adamant on reducing edge noise) or a generous amount of motion blur in low lighting.

Decent battery life from the 1930mAh battery, with about a day and a half of backup time under normal usage conditions.

On paper, this has a very capable hardware package. A promised Android ICS update is only as good as it not being here at the moment! You can consider a lot more options around this price bracket – slightly higher and slightly lower. But if this is the way Huawei is going, expect some real rocking phones from it this year.

Vishal Mathur

Specifications

Platform: Android 2.3; **Processor:** 1.4GHz Scorpion, 512MB RAM; **Display:** 4 inches, 480 x 854 pixels; **Storage:** 1GB, microSD slot and 16GB cloud; **Camera:** 8MP with 720p videos; **Battery:** 1930mAh

Contact

Huawei Telecommunication India Ltd
Phone: 1800-209-6555
Email: service.hw.in@huawei.com
Price: ₹19,990

6.5/10

Features	7.0
Performance	6.5
Build quality	6.0
Value for money	6.0

Samsung Galaxy Y Pro Duos

Dual SIM Android phone with a QWERTY keypad

A quick glance at the device and you could mistake it for an entry-level BlackBerry. It has a candy bar form factor with a 2.6-inch TFT touchscreen display and a QWERTY keypad. The performance of the keypad is good but the small touchscreen feels like a letdown. The device feels well built to withstand a few drops. The rear panel of the device is solid plastic and houses the 3.15MP camera without a flash. The images captured from the camera were good, but rely heavily on the surrounding lighting conditions. Straight out of the box, the device runs Android 2.3 Gingerbread skinned with TouchWiz. The Android experience feels cramped due to the small screen. Multimedia and games run smoothly on the device but the experience feels a bit lackluster.



Below the touchscreen you have a menu, home, back and search buttons between which rests the optical trackpad.

The call quality of the earpiece is fantastic, but the microphone could have been better. There's no physical call receive/end button. The battery lasts two days. Not the best QWERTY smartphone out there especially considering the OS and the price point. If you want a complete Android experience, take a look at the Motorola Fire XT for a great QWERTY experience. If you want Symbian, there's the Nokia E5 under the 10K price point. We'd recommend trying out the phone at a retailer for the Android OS experience on a QWERTY device.

Sameer Mitha

Specifications

Platform: Android 2.3; **Processor:** 832 MHz; **RAM:** 384 MB; **Display:** 2.6-inch TFT capacitive touchscreen (320x240 pixels); **Storage:** 160 MB, expandable up to 32 GB via microSD; **Camera:** 3.15MP; **Battery:** 1350 mAh

Contact

Samsung
Phone: 1800-3000-8282, 1800-2668282
Website: www.samsung.com
Price: ₹9,900

6.0/10

Features	6.0
Performance	6.0
Design	5.0
Value for Money	8.0

Logitech M600 Touch Mouse

It's a touch mouse. Well, sort of!

Yes, the box says that it's a Touch Mouse, but that's only up to a certain extent. The M600 looks very good, despite having a traditional design. The black finish on top has a grey wave imprint design. The finish is a little too glossy for our liking, but will work as long as you don't really scratch it. On the sides is the light grey finish, while the base gets the matte black goodness. This is where the 2 AA batteries go in, and there's the on/off slider.

The M600 literally needs no setup at all! Slot in the AA batteries; plug in the receiver, flip the switch to on, and you're good to go. The drivers take about a minute to install, automatically. No need to install any software to make it work. If you want, you can still get the Logitech drivers and make tweaks to the precision settings.

There's the up/down scrolling using two fingers, but you don't get sideways scrolling, which is a surprise. For what it's worth, the gesture response is precise and instant. What you get for sideways gestures is the ability to move forwards and backwards between web pages, within the image gallery and the Windows browser.



The right and left click mechanism still depends on hardware keys, which kind of confuses the purpose of the device. It's quite an annoyance since you need to make mental notes of when to use the touch gestures and when to suddenly shift to what's a traditional mouse.

The only issue with the M600 is the price. For about ₹500 lesser, you get the Microsoft Arc Touch mouse, and the M600 doesn't really offer anything extra over that one.

Vishal Mathur

Specifications

Device type: Wireless; **Interface:** USB, via unified receiver; **Power:** 2 AA batteries; **Compatible with:** Windows 7

Contact

Logitech India
Phone: 000-800-6001133
Price: ₹3,999

6.5/10

Features	6.0
Performance	8.0
Build Quality	7.5
Value for Money	6.0

Windows 8 on current devices?
Representve gives out hint that the much awaited update might be available for current segment of Windows phones



Russians on moon
Russians are now intend to establish permanent bases on moon
http://dgit.in/JFSe2Z

LG HW300G LED projector

Pricey, but that's the premium for portability

As far as portable projectors go, it has always been a balancing act between portability and the feature set. The HW300G from LG caters to the same demographic. One look at it, and you'll see the form factor resemblances with a fat book. Not very big, but isn't pocketable either – needs the bag that LG provides with the device. Glossy black finish for the top and the sides, while the front has a brushed metal finish to it. The projector lens cap fits nicely, and won't fall off at all.

Connecting it through HDMI is a breeze, and we connected it with a variety of devices – laptop, WD Live and Tata Sky HD. This



LED projector has an aspect ratio of 16:10. From a distance of 3-4 feet from the wall, we were able to project around 50-inches, before it started to become slightly soft (less sharp). The rated brightness is 300 lumens, and does sufficiently well in a traditional projector room (dark, with no peeping lights). Colour reproduction seems a little off though, with the reds being a bit more overbearing than the other colours. Good sharpness though, and we saw only minor motion blur even with fast moving scenes – creditable for a portable projector.

The LG HW300G has a USB port, allowing you to plug in a USB drive and watch videos directly on the projector. It read FAT32 and NTFS drives with ease, but no video upscaling though.

For ₹60,000, this projector doesn't come cheap. But this is one device that will be equally comfortable in your living room and your friend's living room. Move it around at will!

Vishal Mathur

Specifications

Projector type: LED; **System:** DLP; **Resolution:** 1280x800; **Brightness:** 300 ANSI lumens; **Contrast:** 1000:1; **Ports:** HDMI, DVI, Component, Composite, USB for playback

Contact

LG Electronics India
Phone: 1800-180-9999
Email: serviceindia@lge.com
Price: ₹60,000

7.0/10

Features	8.0
Performance	7.0
Build Quality	7.0
Value for Money	6.0

Canon PowerShot G1X

Great low light performer marred by a ridiculous price tag

Specifications

Sensor size: 1.5-inch CMOS; **Image processor:** DIGIC 5; **Optical zoom:** 4x; ISO **Range:** 100 - 12800; **Aperture range:** f/2.8-f/5.8; **LCD**: 3-inch 920K dot articulated

Contact

Canon India
Phone No: 0124-4160000
Email: info@canon.co.in
Website: www.canon.co.in
Price: ₹47,995

7.0/10

Features	8.0
Performance	7.0
Build Quality	9.0
Value for Money	4.0

Still staying away from the interchangeable lens camera, Canon has come out with its flagship PowerShot camera – the G1X. Its sensor size is just 20 per cent smaller than the APS-C sensors seen in Canon's entry level DSLRs.

The AF on the Canon G1X is decent enough,not as fast as the one on Olympus EP3,but comfortably faster than Nikon's P7100. In the Macro mode, you'll tear your hair out though as the camera takes its own sweet time to lock the focus. Another weak point of this camera is the slow continuous burst mode. At a measely 1.9fps in normal modes and about 6 shots per second in the High Burst HQ scene mode, the G1X is nowhere in the league of the similarly priced mirrorless ILC from Nikon – the V1, which can go upto 60 fps in the Electronic (Hi) mode.

ISO performance is where the G1X shines. Even at ISO 1600 one gets a clean output. Only from ISO 3200 do we start noticing minor noise at 100 per cent crops. It gave very sharp images with natural colours. Skin tones were rendered quite well.



PowerShot G1X is a feature-rich large sensor compact from Canon offering some of the best high ISO performance we've seen amongst compact cameras. However at ₹47,995 it has a ridiculous pricing for a high-end point-and-shoot camera. The only issue we see at this price point is that it's in direct competition with some mirrorless ILCs in the market, which offer you the choice to use different lenses.

Nimish Sawant



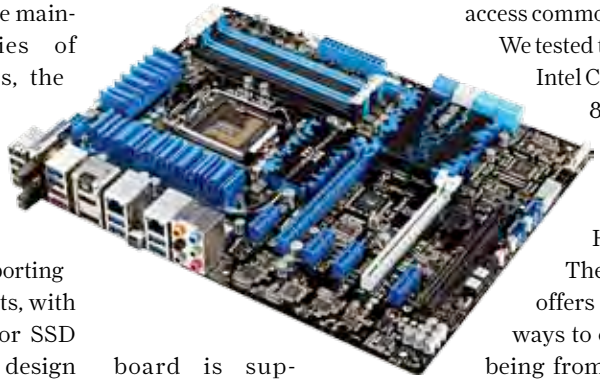
Buffalo AirStation AC1300
This device is a wireless router that supports 802.11ac and run on blazing fast 5 GHZ band
http://dgit.in/KGmqNy

Yahoo Axis launched
Yahoo's new browser named Axis has more visual oriented web search
http://dgit.in/LtjYvJ

ASUS P8Z77-V Deluxe

A high-end Z77 offering with great overclocking options

Belonging to the mainstream series of motherboards, the ASUS P8Z77-V Deluxe is quite a mouthful and is the highest end board in the P8 lineup. It comes in an ATX form factor sporting as many as 8 SATA ports, with two ports dedicated for SSD caching. The heatsink design on the board is quite interesting having a multi-finned heat-spreader. The three PCIe x16 slots are placed at a comfortable distance allowing you to conduct a 3-way GPU setup. There is a dedicated WiFi and Bluetooth 4.0 module on-board allowing seamless streaming of data around the house. The



board is supported well by a whole list of utilities including Fan Xpert 2, AI Suite among others which offer options to monitor system settings, and even overclock from the OS enviornment. The UEFI BIOS is as impressive as we have come to expect from the ASUS system with a nifty shortcut key - F3 - to access commonly used settings.

We tested the board using an Intel Core i7-3770K, with 8 GB of Kingston HyperX RAM (@1333MHz) and an AMD HD6850 card. The P8Z77-V Deluxe offers quite a variety of ways to overclock, easiest being from the BIOS itself. We could overclock the processor from 3.5GHz to 4.3 GHz on air giving us Cinebench R11.5 scores of 6.24 (stock) and 7.27 (at 4.3 GHz).

At ₹20,400 the pricing is a bit on the higher side considering the V Pro is around ₹5,000 cheaper.

Nimish Sawant

Specifications

Chipset: Intel Z77; **Socket:** LGA1155; **SATA ports:** 4xSATA3, 4xSATA2; **Audio:** Realtek ALC898; **PCIe slots:** 3xPCIe x16, 4xPCIex1

Contact

ASUS Technology Pvt. Ltd.
Email: reachus@asus.com
Website: www.asus.in
Price: ₹20,400

7.0/10

Features	7.0
Overclocking	8.0
Build Quality	8.0
Value for Money	6.0

Olympus OM-D E-M5

Excellent mirrorless ILC with a crazy price tag

The Olympus OM-D E-M5 houses a 16.1MP Live MOS sensor with a TruePic VI image processor, which was also seen on the E-P3. The OM-D EM5 comes with the 5-axis image stabilization system which compensates for movement in the horizontal, vertical directions as well as for pitch, yaw and roll. The lens that is bundled with the camera is an M Zuiko 12-50mm lens going from f/3.5 to f/6.3.

The E-M5 offers a blazing fast 9 frames per second with continuous AF activated. It will lock focus on the first frame and then apply that to the rest of the images. The AF speeds are as good as that seen



on the class leading Olympus EP3. Shadow and Highlights control option offered by the Fn2 button gives you complete control over adjusting the curves, upto +/-7 stops, thereby allowing you to get a better dynamic range.

Image quality was very good with natural colours and skin tones rendered beautifully. In the studio ISO sample tests E-M5 performs quite well at the base ISO settings and keeps the detailing accurate till ISO 1600. At ISO 3200 you will start to notice a slight amount of noise only on 100 per cent crops.

Olympus definitely deserves a pat on its back for coming out with a wonderfully retro-looking micro four thirds camera with an excellent feature-set, a dedicated EVF among other things. But the pricing of ₹77,990 is too high for this category of cameras. It competes with established DSLRs in this bracket.

Nimish Sawant

Specifications

Sensor: 17.3x13mm CMOS sensor; **Image Processor:** TruePic VI; **ISO Range:** 200 – 25600; **Aperture Range:** f/3.5 to f/6.3; **Max Video Resolution:** 1920x1080i

Contact

Olympus Imaging India Pvt. Ltd
Phone: +91 22 6142 0400
Email: inquiry@olympus.in
Website: www.olympus-imaging.co.in
Price: ₹77,990

7.5/10

Features	8.5
Performance	7.5
Build Quality	8.0
Value for Money	5.0

Now LTE in US navy
US navy fleet is planning to have a ship based LTE for closed quarter communication

Now Siri in your car
Nuance Communication has introduced a new Siri like platform called Dragon Drive designed specially for the connected car

NVIDIA GeForce GTX 670

Solid performance. Good value

The GeForce GTX 670 is the second card to be based on the fabled Kepler GK104 GPU and it's the perfect wingman for its flagship single core, the GTX 680. In fact the two cards are very similar. The GeForce GTX 670 ships with 1344 shader units (or CUDA Cores as NVIDIA like to call them) and seven SMX units as opposed to eight SMX units and 1536 CUDA Cores on the GTX 680. The memory subsystem of the GeForce GTX 670 is identical to the GTX 680, consisting of four 64-bit memory controllers (256-bit) with 2GB of GDDR5 memory. The similarity extends further to the ROPs - both have 32 and the memory clock is the same too.

With 3D Mark 11 under the performance and extreme settings, the GTX 670 Physics scores were strangely enough slightly better than the GTX 680. Perhaps the card managed to take some load off the CPU allowing it to throttle more, we're not sure. Other than that the scores were as expected - it beat the HD 7970 in over half the tests. For the *Lost Planet 2* benchmark the 670 returned 105.3 FPS (at 720P med settings) while the GTX 680 got 108.9, so not much difference there.



The GTX 670 is a very capable card and it is almost astonishing to see it outperform the GTX 680 in a few tests. Giving equal weightage to each test, overall the GTX 670 gives roughly 95 percent of the performance of the GTX 680. The average GTX 670 is about ₹3,000 cheaper than the GTX 680. So you're getting 95 percent performance for 90 percent of the price. A decent value proposition.

Siddharth Parwatay

Specifications

Base Clock: 915MHz; **CUDA Cores:** 1344; **Memory Clock:** 6008MHz; **Video Memory:** 2 GB GDDR5; **Memory Bus Width:** 256-bit

Contact

NVIDIA
Email: pawasthi@nvidia.com
Website: www.nvidia.co.in
Phone: 22 6724 4800
Price: ₹ 29,000

8.0/10

Features	7.0
Performance	8.0
Build Quality	7.5
Value for Money	8.0

Gigabyte Z77 G1 Sniper M3

Finally an mATX board from Gigabyte

Gigabyte has come out with a micro ATX form factor board from its gaming G1 series of boards, thereby providing some competition to the ASUS Maximus Gene series of boards. Out of the box, the G1 Sniper M3 looks very similar to its ATX cousins sans the bullet-magazine PCH heatsinks. The green and black aesthetics are maintained though. Two-way GPU setup is quite easy. Board layout is quite good but it only sports one 4-pin power connector,which may be limiting to an extent while overclocking. It sports a Creative CA0132 audio controller. There are only 4 SATA ports, with one extra port pointing upwards. For an enthusiast level board, it lacks dedicated power/reset and CMOS clear buttons as well as a POST error code read out. This is a huge letdown.



We tested the board using an Intel Core i7-3770K and Kingston 8GB DDR3 RAM on Windows 7 64-bit OS. It gave scores which were within the margin of error of the other boards that we tested. The UEFI 3D BIOS is present on the Sniper M3 as well. Overclocking via the BIOS is quite easy from the MIT menu. We overclocked the Intel Core i7-3770K to 4.3 GHz on air thereby helping us to take the Cinebench R11.5 score from 6.12 to 7.28.

At an MRP of ₹11,700,it makes for an interesting board for those looking at an Ivy Bridge based gaming rig setup. The 4-pin power connector may not be ideal for extreme overclocking.

Nimish Sawant

Specifications

Chipset: Intel Z77; **Expansion slots:** 3x PCIe x16, 1x PCI x1; **USB Ports:** 4x USB2.0, 2x USB 3.0; **Display Ports:** 1x HDMI, 1x DVI, 1xD-Sub, 1xDisplayPort; **SATA Ports:** 2x SATA 2, 3x SATA 3

Contact

GIGABYTE Technology India Pvt. Ltd.
E-mail: anilkumarr@gigabyte.in
Website: www.gigabyte.in
Price: ₹11,700

7.0/10

Features	7.0
Performance	7.0
Build Quality	7.5
Value for Money	7.5



Text on your coffee foam
Textspresso is a machine that prints text on your coffee foam.Check out the following video link
http://dgit.in/JLBnBF

MS office in iOS & Android
Microsoft now plans to release both iOS and Android variants of its Office apps this coming fall

ZOTAC ZBOX Nano XS AD11 Plus

Compact PCs have got a whole new meaning

We have been consistently reviewing ZOTAC ZBOX's which offer a compact system for regular tasks involving office suites, surfing the web and watching HD movies. The compact size has always made this product enticing, but the Nano XS took our test centre by a storm by its sheer size. It is safe to say that this is the smallest compact computer we have come across. The Nano XS AD11 Plus houses an AMD 450 processor clocked at 1.65 GHz, featuring AMD HD 6320 integrated graphics alongwith 2GB DDR3 RAM. You get a 64GB mSATA SSD onboard, a dedicated SD card reader and on-board WiFi.

We installed Windows 7 64-bit OS on it and ran our benchmarks just for reference scores. It performed at par with the ZBOX AD04 as they have the same specs.ZBOX Nano XS gave a PC Mark score of 3285, Cinebench R10 multi-core score of 2313 among others. Scores were similar to the AD04 except for hard drive benchmarks. While playing back full HD content, we noted that the CPU utilization peaked at the start of the video, then stabilized between 12-15 per cent.



The Nano XS comes at a price of ₹25,400 which may seem a lot, but looking at its extremely compact size, which makes it almost pocketable, the 64GB SSD, on board WiFi and a dedicated Windows Media Centre remote and receiver, etc., it makes for a complete value proposition for those looking at an HTPC and an entry level computer.

Nimish Sawant

Specifications

Processor: AMD E450 at 1.65GHz; **Graphics:** AMD HD 6320; **RAM:** 2GB DDR3; **USB Ports:** 2x USB 3.0,2x USB 2.0; **Hard Drive:** 64 GB mSATA SSD

Contact

ZOTAC India
Email: deepak@zotac.com
Website: www.zotac.com
Price: ₹25,400

7.0/10

Features	7.5
Performance	6.5
Build Quality	7.0
Value for Money	7.0

Synology DS212j

An affordable multimedia-friendly NAS

Specifications

CPU Frequency: 1.2GHz; **Memory:** 256MB DDR2; **RAM:** 4 GB DDR3; **Internal HDD bay:** 3.5-inch SATA or 2.5-inch SATA x 2; **Size(WxHxD):** 100x165x225.5 mm; **Weight:** 0.94 kg

Contact

Synology
Phone: +91 22 2566 7070
Email: info@ebm.in
Website: www.synology.com
Price: ₹18,000

7.0/10

Features	7.0
Performance	7.0
Build Quality	6.5
Value for Money	7.0

When it comes to Network attached storage devices, Synology is big name. With the DS212J, targeted mainly at home and small office usage, we get a range of features combined with a superb interface.

It comes in the glossy white plastic body, bearing the Synology logo on either sides, a series of LED status indicators in the front. On the rear, you have a 90mm fan below which there are two USB ports, and a LAN port. It opens up with a slider mechanism and the section housing the fan and the PCB has a metal sheet separating the PCB from the drive bay. You can add two drives on the DS212J.



After setting up the HDD and in order to get connected to the network,we installed and ran the software named Synology Assistant. We were able to set up the network within 10 mins and the number of steps to install the network were very minimal. The interface makes it easy for you to set up features such as RAID, shared folders, etc. easy. Test results varied with wired connection giving much better download speeds than the wireless connection.Streaming HD video files and audio was not much of an issue. We tested the android apps namely DS AUDIO + and DS PHOTO + which offer streaming to your mobile devices.

At ₹18,000 it makes for a decent purchase for setting up a multimedia server at home or SoHo setup. Plus features such as mobile app connectivity add value.

Saurabh Susmeran

New timeline from Facebook
Facebook is back to its tricks. Just when we were getting used to Timeline, apparently a new version of the same is under testing.

iOS 6 to withdraw Maps
Apple will introduce its own maps with 3D in its upcoming iOS 6, thereby dropping Google Maps altogether.

ASUS ROG Tytan CG8535

Finally a Republic of Gamers' desktop

ASUS has come out with a dedicated ROG desktop called Tytan CG8535. With design cues taken from a ballistic missile submarine, angular design on all sides, and a front portion with a push and slide mechanism to show the Blu-ray drive, HDD slot and SD and CF cards bay along with an ROG logo which illumiates when the system is on, the case has ROG written all over it.

Opening up the cabinet you can see an airy case housing the Intel Core i7-2600K processor, an Asetek water cooler atop it, an ASUS P7 series board, a 1TB HDD along with a 64GB SSD which houses the OS - Windows 7 home Premium 64-bit. It also bundles in an ROG keyboard, mouse set which are very very good.

Scores were as are expected from the rig it includes. Cinebech R11.5 gave a score of 6.52 on stock and on a press of the Speed button, when the frequency went upto 4.6GHz, we got a score of 7.83. Transcoding videos was fast at 16.43 secs for a100MB file. File transfer from the SSD to the HDD was superfast with sequential file transfer giving 180 MB/s. Gaming was a joy as all the benchmarks gave comfortable scores. Although we noticed wierd artifacts at a resolution of 720 pixels, which were resolved at 1080p.



Pricing is as expected-a whopping ₹1,07,588. We are sure that if you were to buy the individual components, the price would come down, but you wouldn't get the whole ROG customization. Strictly meant for gaming enthusiasts

Nimish Sawant

Specifications

Processor: Intel Core i7-2600K; **RAM:** 8GB DDR3; **Graphics Card:** ASUS GTX 560Ti DirectCUII; **Sound Card:** ASUS XONAR DX; **HDD:**1TB; **SSD:** 64GB;

Contact

ASUS Technology Pvt. Ltd.
Email: reachus@asus.com
Website: www.asus.in
Price: ₹1,07,588

7.0/10

Features	8.0
Performance	8.0
Build Quality	7.0
Value for Money	6.0

CM Cosmos II Ultra Tower

If batman had a desktop PC, this would be its house!

Specifications

3.5-inch drive bays: 13; **5.25-inch drive bays:** 3; **USB Ports:**2x USB3.0, 4x USB2.0; **Fans:** front 1x200mm, Top 1x120mm, Rear 1x140mm

Contact

Cooler Master India
Email: sanket_naik@coolermaster.com
Website: www.coolermaster.in
Price: ₹19,990

8.0/10

Features	8.5
Performance	NA
Build Quality	9.0
Value for Money	7.0

It has been quite a while since we have reviewed a cabinet that screams overkill. Thermaltake Level 10 GT had left us gaping with its modular design and sheer size. This month Cooler Master sent us its reply in the form of Cosmos II Ultra Tower.

Coming in an all-black brushed-aluminium body with matte finish, the Cosmos II commands attention. The two cylindrical projections for lifting this massive chassis are replicated on the base thus lifting the entire body of the chassis some centimeters above ground. In the front you have the USB bub on the top and a slider mechanism which hides the optical and HDD slots. The cabinet can be opened on both sides with the help of a notch at the rear side. Both the doors have a slight chrome finish on the edges that make contact with the chassis. The internals are neatly divided into four sections with a metal sheet dividing motherboard and power supply regions. The central portion houses the board surrounded by optimum grommets for wire management; the right hand section houses three optical drive slots, two 2.5-inch HDD slots and five 3.5-inch HDD slots. In the lower portion on the left hand side you have the power slot whereas the right hand side you have a whopping 6 HDD slots cooled by a dual fan door. The spacious interiors means you can easily fit in a 3-way or



4-way GPU setup and a big CPU cooler. The rubber coating on the PSU unit base and around the HDD screws prevents vibrations and noise.

The Cosmos II is an ultra high end chassis meant only for those who have the money to burn and a style statement to make. But at ₹19,990 it is still cheaper than the Thermaltake Level 10 GT.

Nimish Sawant

Bazaar mini

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!



Apple looks down on Android

Senior Apple executive, Phil Schiller chided Instagram saying that it has 'jumped the shark' by releasing an Android app.

KEYBOARD



Microsoft Bluetooth Mobile Keyboard 5000

Price: ₹3,500

SPECIFICATIONS

Type.....Bluetooth keypad
Compatible devices...Bluetooth-enabled
Power.....2x AAA batteries
Additional accessories.....NA

TEST CENTRE RATINGS (All Scores out of 10)

Features.....8.0
Compatible with any device, such as a tablet, smartphone, laptop or desktop that has Bluetooth. Supports all OS.

Performance 8.0
Can connect only to one device at a time. Form factor takes some getting used to. Runs on AAA batteries.

Build Quality..... 7.0
Has a curved design for a more natural typing experience. No palm rest. Some keys are bigger then others due to the design choice.

Value for money 7.0
Decent pricing. For a dedicated desktop keyboard, look elsewhere.

WE SAY

7.0

At ₹3,500, the Microsoft bluetooth mobile keyboard 5000 isn't the cheapest wireless keyboard for your desktop or laptop but it is a good product if you decide to use it with multiple devices such as your tablet or smartphone as well. Just remember, it can only be connected to one device at a time. If you are in the market to pick up a wireless keyboard, you can take a look at the offerings from Logitech, Amkette and Microsoft's before picking up the device.

SPEAKER



Jabra Drive

Price: ₹3,999

SPECIFICATIONS

Device Type....handsfree in-car speaker
Connectivity...Bluetooth 3.0 with A2DP
Hardware keys.....Volume control, call connect and disconnect

TEST CENTRE RATINGS (All Scores out of 10)

Features.....8
It has Bluetooth, A2DP, pairing with two phones and voice guidance.

Performance 7
Loud enough for most usage patterns, but will feel underpowered if you are in a noisy environment or driving with the windows rolled down. Good battery life though.

Build quality 7.5
Built well for the most part, and clips on nicely with the visor. Edges could have been a little less sharp though.

Value for money..... 7.5
It is significantly less expensive than its sibling – Jabra Freeway.

WE SAY

7.0

We like devices that help you keep your eyes on the road. The Drive is a comfortable to use bluetooth in-car speaker, and we appreciate that pairing it and using it is simple. Good battery life helps – we managed to get it to last about 16 hours of calls. Built well, and the most comfortable place to slot it is on the visor. However, edges are a bit sharp. Though this shouldn't get in your way on a daily basis, does take some sheen away from the overall look. Must check this out if you use the phone a lot while driving.



Google eyes Raspberry Pi
Google now plans to buy Arduino and Raspberry Pi for classroom use in UK
http://dgit.in/JFySed

Monster.com in iPhone
Much awaiting Monster.com app has finally launched in iPhone
http://dgit.in/KGIxDu

ADAPTER



Buffalo GX-HDMI/U2 adapter
Price: ₹3,800

COMPACT ROUTER



TP Link TL-WR702N
Price: ₹2,000

HEADSET



Nokia Luna NFC Headset
Price: ₹4,530



Creative Fatal1ty Gaming Headset
Price: ₹3,499

SPECIFICATIONS

Device type..... USB to HDMI adapter USB 2.0	Standard.....802.11 b/g/n	NFC Enabled.....Yes	Driver Units .....40mm Neodymium
Compatibility.....Windows XP, Vista and 7	Modes..... AP, Router, Repeater, Bridge	A2DP.....No	Microphone Type.....Noise Canceling
	Interface.....LAN port	Type.....Bluetooth headset	Sensitivity..... (1kHz) - -40dBv / Pa
	Security..... WEP, WPA,WPA2		I/O Plugs..... 3.5mm gold-plated stereo

TEST CENTRE RATINGS (All scores out of 10)

Features.....8.5
You can connect a laptop without HDMI out to a HDTV, simply by utilizing one of the USB ports.

Performance 8.0
Automatically downloaded the necessary software at first install and was a seamless install on the Windows laptop.

Build Quality.....9.0
Very sleek device that will take up literally no space in the bag, or even on the desk.

Value for money.....9.0
A complete value for money product for its HD capability.

Features..... 7.0
A wireless N router which can be used as an access point or in the router mode or as an extender to boost the WiFi signal.

Performance 7.5
We were able to stream a YouTube video even outsdide our office, past many walls. Within the room the speeds are comfortably over 6-7 MB/s.

Build Quality..... 7.5
Extremely sturdy plastic build and a very compact size.

Value for money.....8.0
Very decent pricing. Great value.

Features.....4.0
Housing case that holds additional charge. NFC enabled. Multipurpose button is really small.

Performance 5.0
Clear audio at both ends, difficult to reach the button when the device is in the ear.

Build Quality..... 7.0
Well built but the triangle shape is unique. Isn't the most comfortable but gets job done.

Value for money.....4.0
Very expensive for ₹4,530 as it doesn't offer anything new.

Features.....6.0
Comes with a detachable mic, an 8 feet long cord and good padding on both the ear domes.

Performance 7.0
Delivered well balanced sound during our gaming stint, with the sound of movement being easily distinguishable from that of firing.

Build Quality.....6.0
The headphones, though made of plastic, feel solid.

Value for Money..... 7.0
Offers good value for money for the performance offered.

WE SAY

8.5

This is a device that adds a whole lot of capability to a machine that doesn't have it in the first place. However, it is a USB 2.0 device that works only on Windows PCs. Mac users will not be able to use this on their machines, unless they have Bootcamp running. It works seamlessly on a netbook and on a full-fledged PC. However, performance of the graphics card will have major bearing on what you finally see on the display. Must have adapter for anyone who owns a laptop or PC that doesn't have an HDMI port for connecting to an HD display.

7.5

The WR207N is an ideal compact router for those who want to share a wired internet connection within a same room on devices such as laptops, cellphones or tablets. The transfer speeds within the room are quite good. It's web interface is also quite informative and allows you to tweak the settings to your liking. Light weight and compact size, make it traveller friendly. Although the MRP is ₹2000, it is available at an MOP of ₹1600 which makes it a complete value for money product. If you want a 3G USB modem connectivity, go for the TP Link MR-3020.

5.0

There aren't many NFC enabled smartphones available in India, which limits you from purchasing the device. Its call performance is good but the multifunction button is really small and inconveniently placed especially if the device is in your ear. The lack of A2DP support means you can use the device for anything apart for making calls. The housing unit is nice as it acts as a portable charger for the headset. For ₹4,530 you can get Bluetooth headsets with more features that will offer you a better bang for your buck.

6.5

In our use, the Fatal1ty Gaming Headset delivered rather good audio cues while playing Unreal Tournament 3, with the footsteps of other players being quite easily discernable, even against the heavy rocket-launcher frenzy. The standard 1/8-inch plugs coupled with the removable mic make it a great companion even for easy listening of most music genres, not recommended for extremely bass heavy tracks. Having them on for almost 6 hours at a stretch and not feeling any pain on the ear lobes is testament of the amazing ear cup design.



FB to have multi video chat

Oovoo a video chat company has rolled out a new multi service video chat in FB
http://bit.ly/Ib7wPL

Google glasses update

Google allowed non-Google employees to use Google Glasses at a Google+ event. Here are the photos
http://dgit.in/LgNfu9

LAPTOP



Lenovo IdeaPad Z570

Price: ₹40,990

SPECIFICATIONS

Screen.....15.6-inch LED, 1366x768
CPU.....Intel Core i3-2330M 2.2 GHz
RAM.....4 GB DDR3 / HDD.....500GB
GPU.....Nvidia GeForce GT 540M

TEST CENTRE RATINGS (All scores out of 10)

Features..... 7.0
Every connectivity port standard found on the IdeaPad Z570 except a pair of USB 3.0 ports.

Performance 6.0
Gave a low 55-min battery life and even processor and overall performance is average.

Build Quality.....6.5
Built well with the screen tightly secured to the bottom chassis. Metallic finish is a bonus.

Value for money.....6.5
If you want a mainstream laptop that covers all basics but doesn't offer anything extra.

WE SAY

6.5

The Lenovo IdeaPad Z570 is a good mainstream laptop. As you can see from the specs, the Lenovo IdeaPad Z570 comes with a slightly confusing hardware building blocks -- it could've had a faster CPU, lending the laptop a great foundation to deliver high performance. We liked the laptop's isolated keyboard with scalloped, curved keys which are great for typing, and the keyboard had no flex to deliver a top-notch typing experience. Overall, a good laptop which could have been better.

MOTHERBOARD



ASRock Z77 Extreme 4

Price: ₹11,999

SPECIFICATIONS

Chipset..... Intel Z77
SATA Ports.....4x SATA 2, 4x SATA 3
USB Ports.....4x USB3.0, 2x USB 2.0
Security..... WEP, WPA,WPA2

TEST CENTRE RATINGS (All scores out of 10)

Features..... 7.0
It comes with the XFast technology which improves faster LAN, RAM and USB speed.

Overclocking 7.5
It has a an EZOC overclocking utility as well as easy OC options in the BIOS. We could easily overclock it to upto 4.3GHz on air.

Build Quality.....8.0
Extremely sturdy heatsinks. All solid state caps. Good layout overall

Value for money..... 7.0
Makes for an affordable Z77 board with a decent feature set.

WE SAY

7.0

ASRock Z77 Extreme4 is targetted at mainstream users who want a feature rich board, but will not go over a 2-way GPU setup. The price point which has always been a strong point of ASRock boards adds to the charm. Features such as dedicated power / rest buttons and a POST error code readout will appeal to overclockers as well. The UEFI BIOS is easy to navigate and overclocking options are many, even allowing you to overclock with an EZOC utility.



ECS Z77H2-AX

Price: ₹23,920

SPECIFICATIONS

Chipset..... Intel Z77
Expansion slots..... ..... 3xPCIe s16, 2xPCIe x1, 2x PCI
Audio.....Realtek ALC892

TEST CENTRE RATINGS (All scores out of 10)

Features..... 7.0
Has 15 micron gold contact on CPU socket, PCIe slots and memory slots which assist in conduction of current.

Overclocking 5.0
Overclocking on this board is disappointing, confusing variables in the BIOS. The eOC utility doesn't have multiplier.

Build Quality.....8.0
Great build quality on the VRM heatsink and PCH heatsink has a temperature sensitive sticker.

Value for money.....6.0
Pricing is on the higher side.

WE SAY

6.5

Looks wise and as far as build is concerned the ECS Z77H2-AX delivers the good. It also offers interesting features such as gold plated sockets which help on conduction of current. But we were put off by the issues around overclocking the processor. The BIOS despite being a UEFI one, does not assist one much when it comes to overclocking, specially when one compares it with BIOSes from ASUS, MSI or Gigabyte. Also the overclocking utility bundled wasn't as great as the ones offered by competing vendor. Has onboard WiFi and Bluetooth.



Biostar TZ77XE4

Price: ₹13,390

SPECIFICATIONS

Chipset..... Intel Z77
SATA Ports .....4xSATA 2, 4x SATA 3
PCIe slots3x PCIe x16, 2xPCI, 1xPCIe x1
USB ports..... 2x USB 3.0, 4x USB 2.0

TEST CENTRE RATINGS (All scores out of 10)

Features..... 7.0
It sports 8 SATA ports, has a dedicated overclocking utility, allows a 3-way GPU setup.

Overclocking 6.5
BIOS overclocking options are not that exhaustive, but we could manage to tweak the multiplier and achieve around 4.4GHz on air.

Build Quality.....6.5
Sturdy build with good heatsinks over the VRMs. PCH heatsink isnt that impressive.

Value for money..... 7.0
Priced quite decently.

WE SAY

6.5

TZ77XE4 is the flagship board from Biostar, but when compared with competition's flagship boards its found to be lacking in certain aspects. It has a very decent feature set mind you, but the BIOS implementation could have been better. If you place a large CPU cooler, the graphics card on the first PCIe slot and the memory module on the first DIMM slot get affected. It does overclock well with the utility in via the BIOS, but the BIOS options could have been more exhaustive and intuitive. Pricing is decent.

132 **Indian Memes**
From CID to Rich Delhi boy to Smart Iyer boy and those countless tips, we explore the world of Indian Memes

140 **Digit 101**
Ever heard your friends talk about Linux and wondered what it all meant? Fear not, we're here to guide you

Digit's Top 11 TV Shows

Should the Indian government allow you, there's a whole universe of TV shows out there for you to immerse yourself in. Obviously no one watches TV shows on TV anymore but hey nowadays there's little or no lag between something aired abroad and it reaching Indian shores. As for the retro content, you can always hope for it to be aired in speciality segments like "classic hour" that TV channels seem to have every now and then, or just head to YouTube

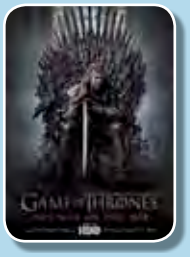


Black Books

There's something quite nice about British comedies that puts them in a different league. The wordplay, the highbrow humour and almost unbelievable capers make for an explosive mix of unending lolz. *Black Books* is a dark comedy about an irritable and perpetually inebriated Irish bookshop owner who hates pretty much everything. With his best friend Fran (who owns a shop across the street) and assistant Manny the protagonist has perhaps some of the best comic moments in TV history. The makers didn't let the charm die out and kept it to only three seasons. Short and sweet.

Game of Thrones

If you've not yet heard of *GOT*, you've probably been living under a rock. In any case, contrary to popular opinion, *GOT* isn't a fantasy series. It's actually a political drama, a story of human emotion and struggle set in a fantasy world - the realm of westeros, which has dragons, magic and white walkers.



Revenge



This can best be described as our little guilty pleasure. How much ever we'd try to deny it, it's essentially a soap opera. You have women trying to hatch complicated and unbelievable plots against each other, lives being destroyed and high society cocktail parties. We're human; we couldn't resist.

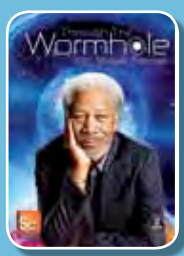
It's Always Sunny in Philadelphia

This show is about a bunch of guys (The Gang) who have nothing better to do than sit around a bar and drink all day. They have a skewed sense of morality which pretty much makes them all a**holes. Joined by Danny DeVito from the second season onwards, watch as The Gang embarks on one ponzi scheme after another.



Through the Wormhole

How would you like for the mysteries of the universe to be explained by God himself? Or Morgan Freeman? This extremely thought provoking series which airs on the Discovery Channel deals with physics, quantum mechanics, the string theory, cosmology, quantum mechanics and astrophysics and thus tries to find answers to some of the most intriguing question in the respective fields.





Anthony Bourdain: No Reservations

Of course everyone knows about *Anthony Bourdain* but that doesn't mean the show won't get a place in this list. He's manages to be cool and arrogant at the same time, making you love to hate him. Besides, he's got the most coveted job in the whole world. Who wouldn't want to travel to exotic places, enjoy the cultures and try out all sorts of culinary delights?

The Office

A mockumentary style comedy drama about workplace bureaucracy and intra-office politics. There's the slimy suck up underling, the token hot chick, the boss whose primary function seems to be to faff about...Watch with an open mind.





Tokyo river lit up

Panasonic lit up the Tokyo river with 10,000 LED lights. See how it was done by checking out the following link **http://dgit.in/KEWFkb**

Audi, others unite on standard

Audi, BMW, etc agreed on a common format for EV charging ports – the not-so-elegantly-titled "DC Fast Charging with a Combined Charging System" **http://dgit.in/KekL1X**



American Dad!

While *Family Guy* is irreverent about everything, *American Dad* is mind-numbingly stupid in its approach. The title character is a CIA Agent (Smith) who's harbouring a whiny alien in his home, while the house pet, a goldfish is a German with a strong penchant for Mrs. Smith. So absurd is the political satire that you can't help but laugh.

Penn & Teller: BS

There are mythbusting shows and then there's *Penn & Teller*. This unlikely duo has taken it upon themselves to rid the world of bulls*** (yes, it's part of the show's title) one controversy at a time. No topic is Taboo for these guys. But be warned this show is not for the weak hearted and certainly not for those under 18.





Sherlock

Conceived by the creative geniuses behind *Dr. Who* and *The Adventures of Tintin*, Sherlock is a contemporary take on the classic by Sir Arthur Conan Doyle. Holmes uses all the latest technologies available – smartphones, the internet and GPS to track down criminals and his arch nemesis Moriarty. Despite a modern setting, Holmes remains true to the original stories – a far cry from the wisecracking pugilist shown in the movies. Every episode involves a parallel case-solving and coming across Moriarty in some form or the other. Each episode is close to 90-mins long, that's almost a feature film length. But the wit, the dry humour, the chemistry, the slick editing, make this show a keeper for us. If you are a Sherlock Holmes fan, you'll love this one!



Satyameva Jayate

This is the only Indian show we have on the list, which goes to show how popular Indian TV shows are with Team Digit. The last of the sober Khans has come out with an interesting, thought provoking and culturally relevant show. It's quite nicely done, has that research-oriented approach which we really like and it rides well on the current climate of revolution. But yeah, it's a little Oprah-esque and we wish Aamir Khan would venture out of the studio the way he does in the promos. The well-composed songs at the end of the show are also quite liked by some team members.

digit DIARY

This being an anniversary month deserved a bigger Digit Diary space. But we don't increase space just for the heck of it. There were many memorable moments for the team this month. Starting with Nimish, who went off to Vienna for a WD summit. The summit lasted a couple of days, and he then took some time off to explore the land of Ludvig Van Beethoven, Wolfgang Amadeus Mozart and Brahms. He spent hours at the cafes there tasting local Viennese beer. That lucky ***. Barely had he got over his jet-lag then he was asked to review *Max Payne 3* – which he had called dibs on after seeing the first *Max Payne 3* trailer, probably a year ago. That was an 18-hour stretch and he seemed to enjoy the ride. We shot a rather explicit video whilst gaming. Do check out the bleep-heavy video: http://dgit.in/KK1kOi

In other news, we got some much needed reinforcements for this giant issue in the form of Hardik, Saurabh and Paanini who are the latest interns in our Mumbai office whereas our Delhi team got a new camera reviewer, Swapnil.

And here's some news which India TV might be proud of: Jayesh, the Big Daddy, apparently on a trip to Pune's Ubisoft office experienced a very windy day. In fact so windy that when he got off the car, the car started to literally blow in the wind. Now you know why he's called the Big Daddy!

Breaking News again: There were no all-night *Quake III* sessions this week. Before you go all ballistic, we should inform you that we indulged in some err...physical games. In a reincarnation of that yesteryear game called 'Lagori', we had teams on either side of the office trying to hit an empty bottle with a stressball. After two sessions, some of us had aching shoulders – a sign that we need more such games.

Just as we write this, Sid is nursing a bruised ego and bum. Why? A lost bet with Nimish. In a misguided fit of enthusiasm, he proclaimed at 2 a.m. that he would return to office at 9 a.m. Of course, he couldn't make it. What followed was a kick on his butt in front of the office :-)

Indian Memes
From CID to Rich Delhi boy to Smart Iyer boy and those countless tips, we explore the world of Indian Memes

Gold-plated motherboard
ECS introduced two 15-microns gold-plated motherboards, which it claims, will provide better anti-rusting and anti-moisture capabilities

Indian Memes

From CID to Rich Delhi boy to Smart Iyer boy and those countless tips, we explore the world of Indian Memes

The Internet is filled with more than its share of memes, images that carry a funny and short message; usually one that is uncannily true. These memes have taken the Internet community by storm, originating on the popular site, Reddit (alright fine, 4chan) and spreading virally, even going on to create dedicated sites like 9gag and quickmeme. Not to be left behind, we Indians have picked up the culture and invented a few memes of our own. Thriving on orthodox Indian mindsets and stereotypes, every one of us can relate to some of these memes. We take a look at some of the most popular Indian memes out there:

Rich Delhi Boy meme

One of our favourites, this meme exploits the behaviour of the stereotypical Delhi boy. The ladies man that he is, his casanova streak, sophistication, err intelligence, fun times with the boys, zen peace of mind etc. While the stereotypes may not be completely true, who are we to argue with the internet's collective wisdom?



Smart Iyer Boy

Study engineering, get a high paying job, and settle down abroad. This meme revolves around the quintessential good boy, adhering to strict Indian traditions.



The CID meme



See that door? Of course you don't, because Daya just tore it down. Everyone's favourite TV show to take digs at and probably one of the longest running shows on Indian television, CID is a gold mine of cliches just waiting to be poked fun at. From Daya's brute strength to ACP Pradyuman's idiosyncrasies, this meme has it all.

Tips

This one has multiple variations, including IIT Tips, BITS Tips, Mumbai Tips, Bawa tips, Pao tips and tips from every conceivable nook and cranny of India. What started out as a hilarious and quirky meme has been used and abused by innumerable institutions. Overkill? We think so.



Indian metal guy

What do you call a teenager who hasn't bathed, shaved or had a haircut in ages and treasures his Linkin Park CD?



A hobo with a Linkin Park CD. Or an Indian metalhead. We can't really tell. Known for his desperate and miserable attempts at being br00tal but remaining firmly on the poser side of things, the Indian Metalhead is a classic case of misplaced identity.

Average Gujju Guy

We've covered the brats from Delhi and the nerds from the South, so it would be unfair to leave out our beloved Gujju Bhai. Raised on a diet of dhokla, khakra, fafda and the stock market, this meme exploits the stereotype of the strictly vegetarian, money-loving, innocent and naive Average Gujju Guy .



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digit 11th ANNIVERSARY

Putting faces to the names

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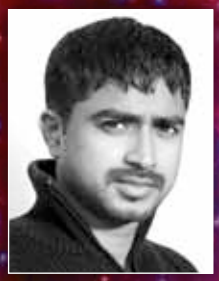

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...but what really sweetens the deal is a passion for technology, a love for all things Digit, and... it's not like the hands-on with the latest and greatest products and multi-player LAN parties hurt either ;)

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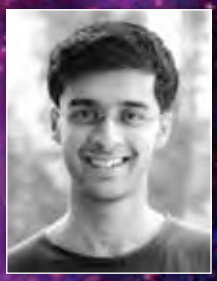
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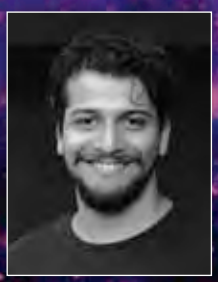

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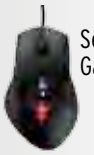
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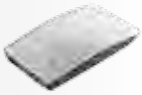
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Demystifying Linux

A beginner's guide to installing, setting up and using Ubuntu 12.04

Ever overheard geeks talk about 'Linux' or 'Open Source Software' and wonder what they meant? Fear not, we're here to familiarize you with Linux and introduce you to a whole new way of interacting with computers. Before we get our hands dirty though, let's go over a few basics.

The Operating System (OS)

The OS is the underlying software that allows other programs such as your web browser, word processor and video player to run. Microsoft Windows is an OS, as is Apple's Mac OS X. At the heart of every OS lies a 'kernel' that tells a computer how to interact with various hardware devices. Linux is an Open Source kernel. Wondering what that means? Read on to find out!

Open Source

Software is written as a set of instructions telling the computer what to do. These instructions are referred to as 'source code'. If the source code is freely available for modification and redistribution, the software is called Open Source. Linux is developed and maintained by a large community of contributors, thanks to its open source nature.

Linux Distribution

Any OS that uses the Linux kernel is a Linux 'Distribution', or 'distro' in short. There are thousands of such distros available, each suited to a specific purpose.

Why should you use Linux?

GNU/Linux presents many significant advantages. Firstly, most distros are free of cost, and acquiring one is as easy as downloading an image and burning it to a disk (If you're a regular reader, you'll have noticed that we bundle at least one distro with every DVD.). The sheer number and variety of distributions out there will ensure that you'll find one to match your need. We'll be using Ubuntu as an example, known for its ease of use and beginner-friendly approach, not to mention a massive repository of applications and excellent community support.

Machines running Linux are unparalled on the performance and stability front. While Windows users may have to deal with system crashes (the infamous 'Blue Screen of Death') or frequent slowdowns, Linux's stability is legendary, and many of the world's biggest companies rely on servers running Linux to keep their data safe. There even exist lightweight Linux distros for very old and outdated computers, giving them a new lease of life!!

While Windows (and more recently, Mac OS X) users are frequently the subject of malware attacks, Linux is an inherently secure system. The number of Linux-specific viruses and trojans are very few, and a Windows virus is very often ineffective against a machine running Linux.

Lastly, Linux distros can do everything that other OSes can do. Watching movies or listening to music? Done. Browsing the web, checking your email or editing documents and spreadsheets? Done. Distributions like Ubuntu achieve all this and much more with ease, requiring minimal effort on the part of the user.

A word of caution though: Linux uses slightly different ways of doing things than what you're used to, so there may be a learning curve involved. If you run into problems or need help, remember that chances are someone else has had a similar problem before and you'll find the solution online.

Now that we've got that covered, let's get started!

As stated before, we'll run you through the steps required to obtain a copy of Ubuntu, create a bootable disk/pen drive, install Ubuntu on your system and customize it to your needs. We've included relevant screenshots wherever necessary to help you out, so the whole process should be a cakewalk.

1: Obtain the Ubuntu image

The DVD accompanying this issue (titled '*nix and Open Source') carries an Ubuntu 12.04 image. If you don't have the DVD, head over the http://www.ubuntu.com/download/desktop and download either the 32-bit or 64-bit version of the .iso file, depending on your system type. If you're unsure, go with the 32-bit one. You can also find torrent links on the site if you prefer using a BitTorrent client.

Step 2: Create a bootable disk/pen drive

The .iso file that you've downloaded will be used to create a bootable disk. A bootable disk is one that lets you boot directly from the device, rather the hard disk. If you decide to use a CD-ROM, use a tool like ImgBurn or PowerISO to burn the file to a disk. If you're using a pen drive (at least 1 GB) use a utility like UNetBootin (see image) to create a bootable pen drive.

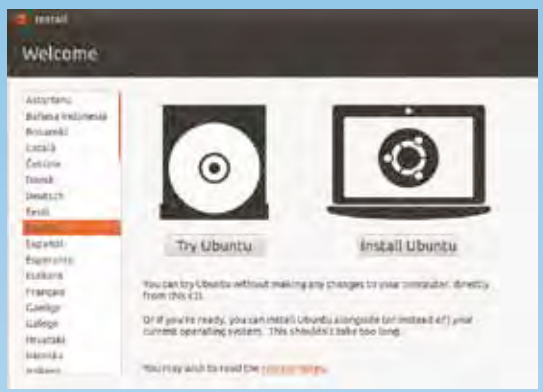
3. Boot from the live CD/pen drive



Use UNetBootin to create a bootable pen drive

Restart your computer, keeping the pen drive plugged in or the CD in the CD-ROM drive. As soon as the computer starts to boot, press F12 or F2 (The exact key may vary depending on your BIOS. Look for a line at the bottom of the screen informing you of the same) to

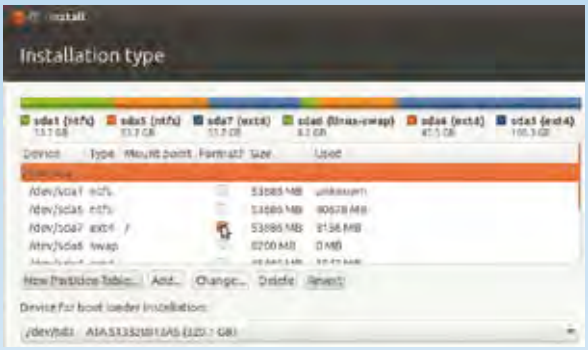




Ubuntu's Live CD lets you try the OS before installing it

change boot device preferences. From the list, select your CD/pen drive.

Ubuntu gives you the option of trying out the OS before actually installing it. Click the 'Try Ubuntu' option if you wish to explore and acclimatize yourself to Ubuntu's Unity interface. Once you're ready, click the 'Install Ubuntu' icon on the desktop. Ensure that your laptop is plugged in to the AC charger and that you have the required space, and click on 'Next'.



Select your partition type and size

4. Create a partition and install Ubuntu

The next screen will give you several installation options. You can choose to install it in place of your existing OS or alongside it. For now, we'll choose to explicitly specify our partitions. Choose 'Something Else' and proceed. In the next screen, you'll have to create a new partition for installing Ubuntu. Your hard disk is split into various independent portions called 'partitions'. Look for a partition with enough empty space (at least 10-15 GB), click on it and click on 'Change'

Choose the size you wish to allocate for Ubuntu in megabytes (atleast 10-12 GB) and select 'Beginning' as location for the new partition. Choose the 'ext4' option from the dropdown menu, and enter '/' (without the quotes) in the Mount Point field. Check your settings once to be sure that you haven't made any mistakes, and click on 'Install Now'. The installer might prompt you to create a Swap partition, but if you have a newer machine with less than 2GB RAM, you needn't worry about it. The installer will proceed and ask you to enter your time-zone, select your keyboard type (Default if you're unsure) and create a new user for yourself.

That's it! Just sit back and watch the slideshow while Ubuntu installs itself on its disk. Once it's done installing, the installer will prompt you to eject the disk and restart the machine. Upon restarting, you'll be presented with a menu to choose if you want to boot into your freshly installed Ubuntu or your existing OS. Choose Ubuntu to start using your brand new OS, and get a feel of things.

Here are a few tips to get started:

1. The dock on the left is called the 'Launcher', similar to the one on Mac OS X or Windows 7's taskbar. You can pin frequently used applications to the launcher (Right clicking on the icon -> 'Lock to Launcher'). The workspace switcher will help you switch between virtual desktops for better organization of open windows.

2. Hit the super key or 'Windows' key to bring up the 'dash', using which you can easily search for existing files and applications on your computer. Press down the super key for 2 seconds to see a full list of keyboard shortcuts. You can narrow your search to just files, apps, music or videos by clicking on the corresponding icons at the bottom of the dash.

3. Important notifications and system information will be displayed on the panel at the top. Each icon is an indicator, and displays information such as volume, currently playing music, network status and notifications from social networks, chat services or email. Your email, instant messaging and social networks can be configured from within the messaging menu. System settings and functions such as Shut Down/Restart/Suspend can be accessed by clicking on the cog-wheel to the extreme right.

4. You can search for and install applications using the Ubuntu Software Center. Looking for a specific function within an app but don't know where to find it? Press Alt to fire up the Heads-Up-Display (HUD) and type in your query. The HUD will come to your aid, presenting answers as you type.



FB to acquire Opera
According to rumours Facebook is trying to buy out Opera, the web browsing company, thereby trying to get into the web-browser market. **http://dgit.in/JJNVnn**

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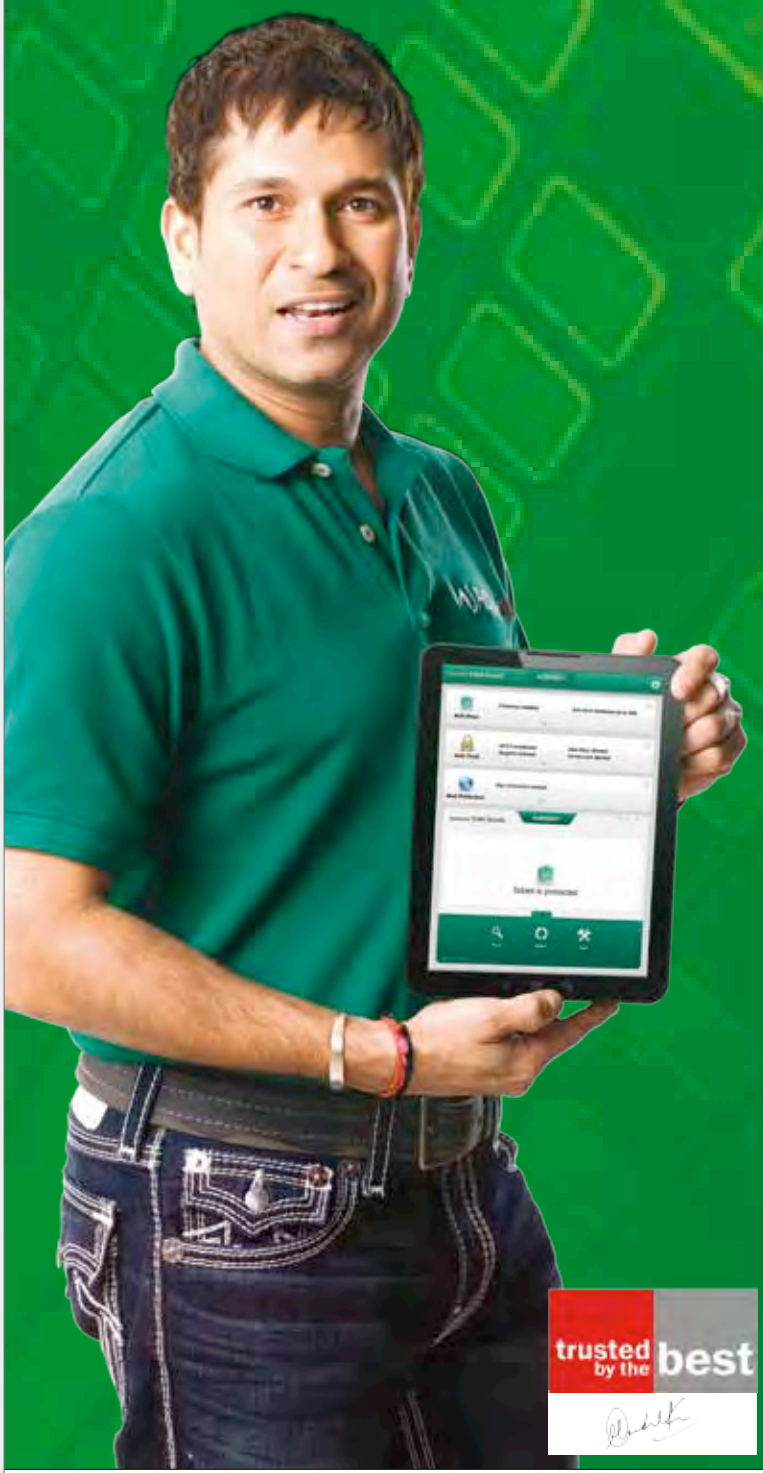
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