A 9.9 Media Publication

digit

YOUR TECHNOLOGY NAVIGATOR | WWW.THINKDIGIT.COM | VOL.11 ISSUE 11

30+ MOTHERBOARDS TESTED (including Z68 and A75)

EVERYONE'S A GAMER

NO MATTER WHAT YOUR GENDER, AGE, OR BANK BALANCE, YOU ARE A GAMER!

- 10 free games everyone *must* play
- Gaming: a social network?
- Why it sucks to be a gamer in India
- How India wasted 700 crores this year

BUILD
A pint-sized **missile launcher**

COMPARE
Mice & keyboards **for gamers**

LEARN
What's new in the latest **mobile OSes?**

PLAY
FIFA 12, F1 2011, **and more**

COMPARISON TEST
THE LATEST HD MEDIA PLAYERS

+

SPACE AGE
HOW WE FIND DISTANT PLANETS

Tips & Tricks : Google Docs, Ubuntu 11.10, and more... | Agent 001: Gaming consoles

WORLD VIEW
THE BEST TECH ARTICLES FROM AROUND THE GLOBE

Nokia E6

The right Smartphones let everyone stay connected & work smarter

A wide range of Nokia Smartphones with Mail for Exchange lets your employees be connected from anywhere, anytime, through a safe and secure network

Nokia E5   Nokia E6   Nokia 701   Nokia N8

Nokia E6 does not support Microsoft Communicator Mobile

NOKIA

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Awaken the gamer in you

People make the mistake of thinking that being a "gamer" means you have a great PC or one of the popular consoles, and spend inordinate amounts of time staring at screens. Yes, those people are *video* gamers, but there's a gamer inside all of us – you, me, our grandparents, parents, everyone!

The oldest known proof of a game is a Backgammon board and dice excavated in Iran, from the ancient city of *Shahr-e-Sookhteh* (the burnt city), which was built around 3200 BC and abandoned in about 2100 BC (basically 4,000-5000 years ago).

Almost everyone on Earth today, and certainly all of Digit's readers have at some point played games and enjoyed them – cards, dice games, chess... something. Digit readers are just more into video gaming than the average Indian, but that's just a difference of mediums, not natures.

There are several aspects to gaming that make it come naturally to humans. Entertainment is perhaps the most significant, since we all need something to do – perhaps why we watch the rubbish on TV these days, or listen to music, read, play games, etc.

Satiating our competitive streak is another big pull – it's why we've always played games, sports and everything else in life – the desire to be *better than* the rest is ingrained in our psyche. We also need to exercise our minds, and that's where mental games, or puzzle games, hook us. The brain releases feel-good chemicals when you finish such games, which in turn gives you a sense of accomplishment.

Anxiety or fear may sound like strange emotions that draw us to games, but they're what add to the fun of everything – it's why some of us love horror movies and nail-biting sports finales. Games also cause these emotions, and a rather tough battle in Chess will likely trigger very similar changes in emotion as when a hardened FPS gamer first played *DOOM*, or any other similar game.

Many people also love the escapism that games offer – visiting alien worlds, re-living events of the past or future, being a wizard in a kingdom of magic, or basically letting our imaginations run wild. It isn't only video games that offer this either. *Monopoly*, for instance, lets us live out our fantasies of being rich property owners.

Video games, though, have some unique offerings for the gamer in us – sex, violence and rebelliousness. The *Dark Side* in us all (males especially, if some studies are to be believed) needs to rebel against society and the morals imposed upon us. While most such gamers wouldn't hurt a fly and are respectful of women, they will happily revel in all the blood and gore and sexist fun that games provide.

Rockstar Games has successfully exploited this Dark Side of gamers by hiding unlockable content of a sexual or violent nature in a game. Although it stirred up quite a ruckus and made headlines, and even got the game banned in some places, it only fuelled the desire of gamers to want to play said game. The forbidden fruit effect, so to speak.

Warning! Shameless plugs ahead: While SKOAR! – the next edition of which will be out with our December 2011 special issue – caters mainly to the hardcore gamer, Digit chose to look at how there's a gamer in all of us for the specific reason of encouraging it.

I'm not going to sit about citing all the various studies that claim to provide evidence about whether or not games are good for us, because those are usually studying a minority of games and people – the SKOAR! type. For the rest of us, who probably spend more time playing *Angry Birds*, *FarmVille*, mobile games or *Solitaire* than any other game, what matters most is fulfilling our mental need of the hour – entertainment, competitiveness, escapism, etc.

This issue (and the DVDs that accompany it) aims to satisfy those urges by giving you some suggestions about which games to play. We try and show you how your love for a particular game can lead to socialising with like-minded people, and also take a light-hearted dig at a game that's pretty popular with the Facebook generation. Of course, there's always something for developers and SKOAR! fanatics, as usual, but in the end, our cover story aims to make the point that *everyone* is a gamer at heart. d

Robert Sovereign-Smith
Executive Editor
editor@thinkdigit.com

"Almost everyone on Earth today, and certainly all of Digit's readers have at some point played games and enjoyed them – cards, dice games, chess... something."

Liked or hated this column? Write in to *editor@thinkdigit.com* and express yourself.

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thinkdigit.com

Disclaimer
For every Digit contest, there will be only one winner, unless specified otherwise.
In the event of a dispute, the Editor's decision shall be final.

PRODUCTS REVIEWED THIS MONTH

Bazaar
Acer Aspire S3
Acer Iconia A501
Alienware M14x
ASUS Matrix GTX 580 Platinum Card
Beetel MAGIQ
Boxee Box media streamer
Canon Selphy CP800
Cooler Master Elite 311 Plus Cabinet
G'Five G20 Gaming Phone
LG AF115 projector
Mercury MTab
Microsoft Touch Mouse
Microsoft Wireless Desktop 2000
Nikon COOLPIX S9100
Nokia J Bluetooth headset
Samsung Galaxy Tab 750
Sony BDV-E980 home theater
Sony Bravia HX925
Sony Ericsson Xperia Mini
Vodafone 555 Blue
Wipro e.Go Aero
Zebronics ZEB-SW3200RUCF speakers
Zotac Zbox Nano Plus AD10

Gaming peripherals test
Cooler Master QuickFire Rapid (Blue)
Cooler Master QuickFire Rapid (Black)
Cooler Master QuickFire Rapid (Red)
Razer Black Widow
Razer Cyclosa (Bundle)
Razer Starcraft 2
Steelseries 6Gv2
Zebronics Judwaa 5 (Bundle)
Cooler Master CMStorm Inferno
Cooler Master CMStorm Sentinel Advance
Cooler Master CMStorm Spawn
NZXT Avatar S
Razer Spectre (Starcraft II bundle)
Razer Imperator
Razer Orochi Black
Razor Abyssus (Cyclosa bundle)
Steelseries Kinzu
Steelseries Xai
Zebronics Judwa 5 (bundle)

Motherboards test
ASRock A75 Extreme6
ASRock A75 Pro4-M
ASRock Z68 Extreme3 Gen3
ASRock Z68 Extreme7 Gen 3
ASUS F1A75-M LE
ASUS F1A75-V PRO
ASUS F1A75M
ASUS F1A75M Pro
ASUS Maximus IV Extreme Z
ASUS Maximus IV GENE Z
ASUS P8Z68 Deluxe
ASUS P8Z68 Mpro
ASUS P8Z68-V LE
ASUS P8Z68-V LE
ASUS P8Z68-V Pro
Biostar TZ68K+
Biostar TA75A+
ECS A75F-M
Gigabyte A75-D3H
Gigabyte A75M-D2H
Gigabyte A75M-UD2H
Gigabyte G1 Sniper 2
Gigabyte Z68AP-D3
Gigabyte Z68X UD7 B3
Gigabyte Z68XP-UD3-iSSD
Intel DZ68D8
MSI A75MA-G55
MSI Z68A-GD65 B3
MSI Z68A-GD80
MSI Z68MA-ED55
ZOTAC A75ITX A-E
ZOTAC Z68 ITX A-E
ZOTAC Z68 ITX B-E

HD Media player test
Amkette Flash TV HD Media Player
ASUS HDP - R3 - O! Play Air
ASUS O! Play Gallery
ASUS O! Play HDP – R1
ASUS O! Play Mini
ASUS O! Play Mini Plus
ASUS O!Play HD 2
Buffalo Link Theatre
iOmega ScreenPlay DX 1TB
iOmega ScreenPlay MX 1TB
iOmega Screenplay TV Link Dx
iOmega ScreenPlay TV Link MX
Seagate Go Flex TV
WD TV Live
WD TV Live Hub 1TB

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Software on the DVDs
To submit and suggest software or any other type of content, to be included in the Digit DVDs, write to **dvd@thinkdigit.com** or call **+91-22-678 99 707**

Q&A
If you're having trouble with your PC or a gadget, our experts can help solve your problems. Just write in to **sos@thinkdigit.**com. Remember to include full system configurations in your email.

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Introducing Smart-UPS

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ON THE DVDS

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digit NOVEMBER 2011 DVD DUAL LAYER

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✉ I'm an avid reader of Digit since the past 3 years and have never missed any issue. I am so attracted to this magazine that I can spend the whole day reading the same topics. Your hard work to bring out this magazine is extraordinary. I'm a proud Digit forum member and I must say that you've made me famous in my college as I'm the most superb geek in our class. Thanks a lot for that. I love you Digit, keep up the good work, we are with you.

Ravi Chakravorty

🔴 We're glad to know that Digit guided you in your journey to becoming a superb geek in your class. Thanks for your encouraging words.

Nimish

✉ I've been reading Digit for the past 3 years, I really liked Fast Track to Nanotechnology. Can you please cover more topics such as quantum physics and quantum mechanics in your coming Fast Tracks? They are the most spoken topics these days in most of the research and education fields.

Manoj Vangala

🔴 Hi Manoj, it's good to know that you found the Fast Track to Nanotechnology interesting. I'd like to know what other readers think of Manoj's suggestions for Fast Track topics. If the majority agree, we'll do it.

Robert

✉ I've been reading your magazine since a long time (when it was called Chip) and also followed the Hindi version. I've never felt the need to write in before since my thoughts were always in agreement with someone whose mail has been posted. Being busy with work, I had to skip checking DVDs, but never skipped the Fast Track. I started surfing the October 2011 DVD. I didn't have any issue with content but with the design. I use an HD monitor with 1920 x 1080 resolution, but have kept it at 1600 x 900. The major problem I had with the DVD was the extremely small font size (Here I'm talking about the description fonts) which is very tough to read and strains

Feedback about the October 2011 issue of Digit

eyes. As an alternative to increasing font size, I suggest giving a button to increase it as per our need. Another problem I faced was the small-sized thumbnail which if it was bigger you could show what exactly the game or software looked like. The big debate among Digit readers right now is whether to keep two DVDs or two Fast Tracks. I suggest keeping two DVDs rather than two Fast Tracks because sometimes free software is hard to get. For instance, I still use TuneUp Utilities 2007 Digit edition (It completes my need so no need to get an upgrade). I know there are readers who've suggested keeping Fast Tracks but I realise that even though I have broadband internet, I don't have to waste my time searching for the best software since Digit already provides good software.

Another issue I face is that on every page you give links and details. Could you give the same links on DVDs since it's easier to copy-paste. The short films you keep adding in DVDs are appreciated but you only give animated films, live action would also be great fun. I miss the nice collection of wallpapers. I think I've been with Digit since a decade and will be there till I die. I've seen lots of change and each time it was a change for the better.

At a time there was HTML, Macromedia Flash/Director DVD presentation but now the content is more dynamic and impressive. Keep up the good work. Thanks for your efforts to keep us updated to be able to compete in this world.

Kiran

🔴 Thanks for the feedback and suggestions Kiran. We'll try and implement them. As far as the wallpapers are concerned, we've been bundling HD wallpapers each month. You can find them once you right-click on the Digit icon and enter the main folders in the DVD.

Sambhav

✉ Great job on the October Diwali edition of Digit. Two Fast Tracks and one DVD is how I believe the magazine should be made. But I have a few complaints: Fast Track topics are not really what they used to be (can you please explain the old stuff again, as some of it has changed too drastically). HTML 5 Fast Track seemed to be an advertorial for Internet Explorer 9. Some emails to Agent001 were unacknowledged. Besides these, please continue in the direction that you've been going.

Parth Mittal

Introducing the IceCream Sandwich
The newest flavour of Android is released with a face recognition unlock, NFC, new user interface and camera capabilities. Read more on page 74

Project Roslyn
Microsoft reinvented compilers with Roslyn Technology that deconstructs every piece of code as a service

Thanks for your vote for the ongoing DVDs vs. Fast Tracks debate. The results are in, and after thousands of votes, the DVD guys won 54 to 46 per cent. Until and unless the majority of Digit readers start demanding Fast Tracks, not DVDs, it looks like we'll be going back to the 2 DVDs bundle. I am the first one to admit that I was wrong, and in this case, my gut feeling was that Fast Tracks would be more preferred – they aren't, not just yet.

We get hundreds of mails a day, and some of them get by us, especially during issue closing, but we'll renew our efforts to try and answer all mails.

Robert

Flux and DBAN were really great in this month's issue. It would be very helpful to new programmers if you could provide a Fast Track on 'C Programming' / 'career in IT/CSE'. It would also be very helpful for youth if you provided some information in Digit about campus ambassador programs / campus crew programs by various companies like Google, Microsoft, IBM, Opera and how we can apply.

Aman Maharshi

Thanks for writing in. We cover a wide range of topics in our Fast Tracks so look out for the ones you requested. We also cover industry news in our Industry Connect section so watch out for that. we will try and cover more campus ambassador news in the future.

Jayesh

I was about to write regarding the delay in my issue but if it's because of a mega package like the one you gave in October, then I don't mind it. This is my first letter to you. You're the best tech magazine and I'm happy just to get the magazine. I really liked the September edition and especially the accessories article. I would also like to thank you for the Java Fast Track you published in Jan 2011 issue that helped me pass my Java exam and project. The Cowon earphones I received as a subscription gift are really good. Keep up the good work guys, thanks for all the knowledge

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LETTER OF THE MONTH

Some letters need no answers

I studied English literature and neither knew nor learnt anything of computer. In 2003 I became a lecturer in a college in West Bengal. I purchased a computer for typing which I leant by following our clerical staff. Some months later I was looking for some wallpapers and in Howrah station I came across a magazine named Digit giving free wallpapers with the magazine. I purchased it and enjoyed the contents and touched a DVD first time (I was looking for one that time). But then I started reading the magazine and instantly fell in love with it.

One year later I became an expert of Windows (according to my colleagues!) and would fix many problems for my college including LAN, ODBC etc. Because of advanced information on gaming I became an expert in gaming too. But in that process of tweaking and overclocking I damaged my hard disks and processors a number of times. Some more months passed on and the local vendors would consult me for new products, configurations and gadgets. A guy taught me Photoshop, Coreldraw (and all other software I seem to have learnt from Digit). After that I got my first internet connection when Digit provided a Fast Track on blogging. Some more Fast Tracks on the web and internet followed. I started with

Blogger and created a blog for helping English aspirants for West Bengal School Service Commission Exam (http://bit.ly/qvQs2I) and another for students of English literature (http://bit.ly/oHpwWU) which have so far been visited by thousands of visitors from all over the world.

From Digit I came to know of Open Source and became an avid follower. More than that from Open Source I learnt of Open Access. Inspired by it I started an OA Initiative in India. In 2008 I purchased a site, designed it and started Rupkatha Journal on Interdisciplinary Studies in Humanities (www.rupkatha.com) which has become within 3 years one of the premier journals of the world having an international editorial board and readership.

In 2010 I started a magazine on art and design at www.chitrolekha.com. I get some money from Adsense (Digit carried a coverage on it) and pass them onto maintaining the sites. I have helped a number of OA initiatives in India with my technical knowledge.

Now I am doing my PhD on Electronic Literature. But I owe all to Digit which has provided everything whenever I needed sometimes just by coincidence. I'm sorry that I didn't acknowledge your debt earlier.

Tarun Tapas Mukherjee
Paschim Medinipur

---

you impart to the readers. I am proud to be a Digit reader.

Suyash Swaroop
Patna

Thanks for the words Suyash, it really means a lot to the whole team.

Robert

Hello Digit! I'm a school student and I study in class 9. I've been a subscriber of Digit since the past 3 months and wait eagerly for the magazine and the DVD every month. The DVDs are really beneficial and have lot to teach. According to me, the World View section is the most interesting one. January 2011 issue was

very useful to me as it had the advertisement of Kurukshetra. I also liked the part where you listed all the top software and games of last year. Your video of tablets on the DVD was also fabulous. Till date I found the Windows 7 Fast Track most interesting and helpful. I want to make some suggestions. First of all, you shouldn't provide the Fast Tracks on the DVDs as there's problem of electricity in many towns in India. I observed the January 2011 magazine was full of advertisements, please try to lessen or decrease the advertisement in the magazine. Please try to provide some more e-books on your DVDs and also try to add tutorial videos of Java, C++.

This month Dr. A.P.J. Abdul Kalam visited P.R. Pote College of engineering, Amravati and here a technical festival was organized named as Techelons. I participated in this fest and a won 1st rank in the event of Science Model Making and most of the credit I give to Digit to enhance my technical knowledge. I also tried to participate in the Kurukshetra but it was too late so, I will try for it next time. I want your guidance in order to develop more and by this, I end my letter.

Amrut Deshmukh
Amravati, Maharashtra.

Hi Amrut, we are so happy to know that you won the first prize in your college festival. It's readers like you who make us proud, keep up the good work and happy reading.

Robert

I've been reading your magazine for a long time now. And I've acquired good knowledge from your magazine. However, I had asked many questions but haven't got any reply nor did it get published in the magazine. That's the only issue I have with Digit, otherwise the knowledge that you guys give is great. It's up-to-date with the market. Keep doing a good job. I'm looking forward to purchasing an Android phone and am very confused since my budget is ₹15,000. I would also request you to also answer some queries via email so that the person doesn't have to wait for the magazine to come out to see a reply. Thank you for the knowledge.

Farooq Ahmed Khan

Thank you for being a regular reader of Digit and for your kind words. It helps a lot to know that people are appreciating what we're doing. We do make an attempt to feature as many queries as possible in the magazine every month. Most of the time, due to space constraints, many queries are missed out. As for buying an Android phone within a budget of ₹15,000, we suggest checking out the Motorola Defy. Another phone you can check out is the HTC Wildfire S. It's an upgrade from the hugely successful Wildfire. If you want a physical QWERTY keypad as well, do check out the HTC ChaCha.

Vishal

I've been a fan of Digit since 4th grade, now I'm in 12th standard. It gives me immense pleasure to write to you to acknowledging the great work that's put in by you and the crew. Never has a magazine caught my attention the way Digit has, with great printing, humour, and style. Not to forget the content! By god! Any errors I find (rarely) are instantly forgiven by the time I'm on the next page. The October issue is great, the cover image is a great idea. FT to nano technology was just amazing in the previous issue. Please incorporate such topics in the future. My suggestions include- more game reviews and SKOAR! to be more regular. Other than that you guys are my Gods. (after the real Gods, parents and soccer of course.) Exquisite work!

Amruth

Thanks for your admiring words Amruth. We will look into the suggestions given by you. Happy reading

Nimish

Some days back I was thinking how lucky I'm to be able to read Digit magazine. I've read many editions of it and with each edition I've learnt something new about PCs or mobile phones. I first saw Digit at our school library when my friend was reading it. I asked my friend later what he was reading and he told me about your magazine and also told that a DVD comes with it that's full of software and games. And that was the moment that my excitement was above sea level. I went home and told my papa to bring Digit as my birthday gift as it was the day after. He gave me the magazine and I read the whole thing in one day. This was the story of my Digit experience.

Here are some points that I would like to put up for further improvements: Please make Digit more interesting, I mean the written matter is so boring and looks like it's copy and pasted. I'm a student and there must be some easy language too. Please don't give any edition of your magazine or FTs in PDF format as it's very awkward to read on our PCs. Please give your music that you put in your DVD so that it can be played separately. I want to learn soldering and how to make interconnections with that, so please include that. My favourite Fast Track was the DIY one.

Abhimanyu Singh (a geek)
Kumbhirgram, Assam

We're glad you wrote to us and shared your story. Thanks for your feedback Abhimanyu we'll try and incorporate your suggestions. Happy reading.

Jayesh

East is the new West

The Silicon Valley in the US has for long been the fountainhead of new breakthroughs in IT, Recent years have seen the rise of one more technology leader from the East – Taiwan, or as we call it, Silicon Island. The gadget-hungry world is increasingly looking at Taiwan to fulfill its demanding needs

Overheard recently in a mall

"I want to buy a cellphone with lots of features."
"Big brand or a cheap phone?"
"No! Only reputed western brands – such as HTC."

True, HTC is a global leader and is the manufacturer of amongst the most feature-rich phones available... but Western? Unknown to many, HTC is a b   rand from our very own Asian neighbour, Taiwan. The impression that all good things in technology come from Western brands, is a clichéd one. The popularity of brands such as Apple and Black-Berry have led to most Indians believing that cutting-edge developments in technology are a phenomenon of the Western world. Perhaps, there's also the tendency to visualise Asia as a mere manufacturing hub for designs, technologies and aesthetic concepts that originate in the West.

Banish the thought...

There's so much innovation happening in Asia that countries such as Taiwan, China, and even India are seeing a patent boom. In 2010, Taiwan was the third-largest filers of patents after the US and Japan, respectively.

Taiwan: the global ICT giant

The sheer amount of innovation happening in Taiwan, and the slew of feature-packed devices that Taiwanese companies release on a regular basis might prompt one to think that Silicon Valley just upped and shifted base to this little island nation. In case you didn't already know, some of the hottest brands in technology are Taiwanese – Acer, one of the leading names in notebooks, tablet PCs, smartphones; ADATA, the world's second largest vendor of DRAM modules, and third-largest for flash drives; ASUS the No. 1 manufacturer of motherboards and a soaring fourth place in consumer portable PCs; Optoma, world No. 1 manufacturer of palm-sized pico-projector; BenQ, World leader in Projectors and LCDs,; Ritek, world leader in DVD storage; MSI, another leader in motherboards and graphics cards; Transcend, a household name in flash Drives, USB pen drives with the world's first "life long quaran-tee"; Thermaltake, a world recognised cooling system brand among professional gamers are just a handful. Taiwan is at the heart of most ICT products used by technology enthusiasts in India. If you look inside your PC, you will probably find that a major part of it comes from companies based in Taiwan. Ditto with most of the other devices you own. A prime attribute for this is the fact that Taiwan ICT companies are quick to hit the market with innovative offerings, and are backed by a robust servicing and support infrastructure. Most importantly, Taiwan ICT products believe in offering value for the price, which is a key driver for Indian consumers.

The Taiwan Govt has been initiating multiple programmes to lend support to the country's ICT industry/brands and help them compete in the global arena. One unity to the brands that stem from Taiwan is largely due to the quality symbol Taiwan Excellence.

Silicon Valley in California faces stiff competition from Taiwan, an important region in the technology space

Taiwan Excellence?

Set up in 1992, Taiwan Excellence represents the mark awarded by the Govt. Of Taiwan to companies/products with the highest standards of Innovation, Reliability and Value Worth. The Theme for Taiwan Excellence India 2011 campaign is 'India Intelligence + Taiwan Technology = IT for Excellent Lifestyles.' That the alphabets of India and Taiwan form IT, and the fact that India is reputed for software capabilities, while Taiwan is acknowledged for its hardware superiority, is a great partnership for both countries. The Organiser of Taiwan Excellence, Taiwan External Trade Development Council (TAITRA), believes that their brands/products provide the best in technology that money can buy, enabling customers to experience a truly enhanced lifestyle.

The 2011 Taiwan ICT Industry Report, published by TAITRA, showcases the rapid advances that Taiwan has made in ICT (Information and Communications Technology). The report opens with these lines, "Taiwan forms an indispensable part of the global Information and Communications Technology (ICT) industry. With roughly 57.7 per cent of global IC components coming out the Asia Pacific, the high-tech island stands at the forefront of industries including notebook computers, wafer contract foundries, IC encapsulation testing and IC

TAIWAN EXCELLENCE

Supervised by:
Bureau of Foreign Trade, MOEA, Taiwan, R.O.C.

Organized by:
Taiwan External Trade Development Council

design. Moreover, business opportunities created by Taiwan's large-scale manufacturing are being avidly pursued by technology firms from across the world."

For statistic junkies

According to MIC's latest statistics in April 2011, Taiwanese companies led the global market share of 14 ICT product categories and was at the 2nd place in 2 product categories. Taiwanese-owned companies produce more than 70 per cent of all LCD monitors, 88 per cent of all netbooks, and more than 94 per cent of all laptops worldwide! By the end of 2010, Taiwan had a total of 735 listed electronics companies, whose combined revenue was a whopping $411 billion – that's about ₹20 trillion (with a few hundred billion in change left over). The industry growth rate for 2010 was 31.6 per cent, and more than half of the revenues earned by the ICT industry comes from ICT manufacturing, which is principally focussed on the assembly and manufacture of popular devices like PCs and mobile phones. With reputed market analysts like Gartner predicting high growth in the smartphones and computing industry, Taiwan's ICT sector is firmly on the path to high growth. The same TAITRA report also says, "The Island was recently ranked 13 on the World Economic Forum's (WEF) Global Competitiveness Report for 2011."

Notebooks, smartphones, home entertainment and more

Recently, TAITRA had conducted Interbrand's "2011 Taiwan Global Brands Value Survey," to identify the Top 100 Best Global Brands for 2011, in co-operation with the Bureau of Foreign Trade and the Ministry of Economic Affairs. HTC was judged as the number one brand at the event. HTC was included in the list of top international brands. The technology giant has recorded a remarkable 163 per cent growth rate in its brand value, which now stands at $3.605 billion. The phenomenal growth in the brand's value is being attributed to HTC's successful capture of the Smartphone market over the past year and its active acquisition of various companies for future development of the cloud market.

Many smartphone users in India would eagerly cast their vote for HTC. HTC Wildfire, HTC Wildfire S, HTC Explorer, HTC Sensation, etc., are quite popular in

Taiwan hosts a multitude of technology expos, popuar among which is COMPUTEX TAIPEI, which is the largest computer exhibition in Asia and the second largest in the world, next to CeBIT Germany. Each year, key global businesses come to this event to launch their new products
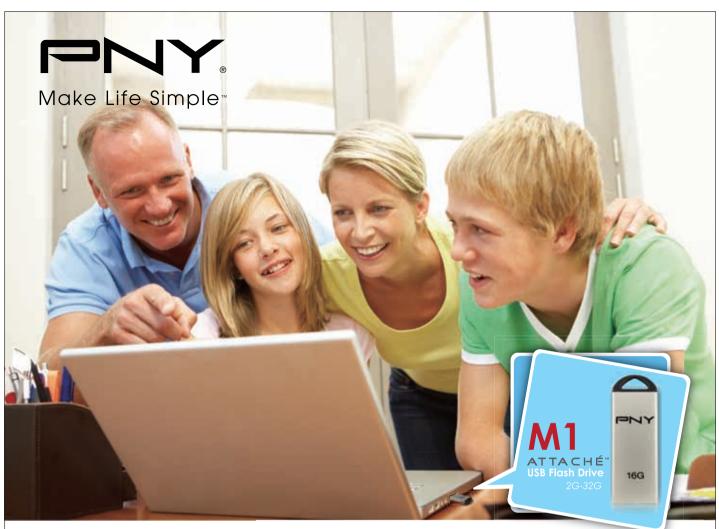
the Indian market. According to the 2011 Taiwan ICT Industry Report published by TAITRA, "HTC recently surpassed Nokia to become the world's third largest Smartphone maker in terms of market value." In 2010, global shipment of Smartphones from Taiwan accounted for 22 per cent of all mobile phone sales, which exceeded 286 million units. In other words, one in almost every four smartphones in the world has been manufactured in Taiwan! Similarly in the tablet space, Taiwan is playing a lead role. Worldwide tablet shipments from the island are forecasted to grow from 35 million units in 2011 to 116 million units in 2014. Likewise brands like Acer, ASUS, MSI, have all been making steady inroads into the India laptop, notebook, netbook and tablet market with a large part of the units manufactured by Taiwanese firms get sold in Asia itself the continent is already on its way to becoming the world's biggest market for technology gadgets.

When it comes to notebook computers, the average monthly production in Taiwan exceeds 14 million units. The 2011 ICT report from TAITRA also reports that the booming notebook industry has provided an excellent base for Taiwan to build up its IC design and display panel industries. Constant innovation has been the hallmark of Taiwan's personal computing industry. Cases in point are the Aspire 5253 and 4253 that Acer launched in 2011. These notebooks are designed especially for productivity, family entertainment and education. MSI's C series of multimedia notebooks – with a CPU that's produced using nano-technology – touched the market in 2011. This device has seen

TAITRA is a non-profit organisation that promotes external trade for the Taiwanese industries. They routinely organize international and regional expos, and experience zone in shopping malls like this

Advertorial

enthusiastic response from many buyers. To add to these, ASUS has created a sensation with its innovative hybrid tablet. Called the Eee Pad Transformer, the tablet comes with its own expandable keyboard docking station. The HTC Flyer, which boasts of a 7-inch screen and 1.5-Ghz processor, is one of the fastest tablets in the world.

Apart from the phone and notebook markets, which are obviously seeing a growth spurt, another market with huge potential in India is the home entertainment segment, and AVerMedia, a major global player in multimedia, internet TV and consumer Electronics products is gearing up for this with a slew of new products that promise to make entertainment at home simpler and seamless. Alongside a full-line of TV tuner and personal video recorder products, AVerMedia manufactures document cameras, digital video makers, TV photo viewers and PC-to-TV converters for consumer, corporate and educational markets. Watch out for the Game Capure HD (C281), a standalone 1080i capture box for Playstation 3 and Xbox 360 that guarantees a prompt and robust HD video capture ability and the HomeFree Combo (F210), a latest LAN network streaming TV tuner device, scheduled to hit Indian stores, soon.
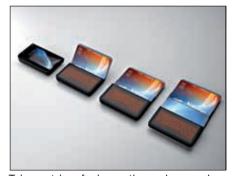
Taiwan's century

On October 10, 2011, Taiwan celebrated its 100th birthday. To celebrate the occasion, Taiwan Government hosted the EMMA Expo in Chennai and introduced "Taiwan Excellence Pavilion" where TAITRA and 26

Taiwanese-owned companies manufacture more than 70 per cent of all LCD monitors in the entire world. Major brands include ASUS and BenQ, which have a strong Indian base

of Taiwan's leading ICT brands showcased 100 of their best technological products to the business partners and citizens in South India. In addition, 18 Taiwanese brands of them further joint-sponsored and equipped 4 Indian young opinion leaders with a complete IT Travel Kit to travel with and blog about from Oct. 14~Nov. 3. Interested IT enthusiasts may follow their blogs to get a personal insight of these Taiwan technologies from these 4 IT travelers on http://www.it-travelersgo.com   Lucky followers may also win a Taiwan ICT gadget by reading and sharing these blogs with your friends.

Taiwan strives for innovation and research, like this Folding Phone concept from Industrial Technology Research Institute, Taiwan and Pilot Fish

What about India?

We're not just buyers, as some would think. Yes, although manufacturers from all over the world are targeting the spending power of rich to middle-class Indians, it's the average Indian developer that will gain the most. Thanks to Taiwanese expertise in manufacturing, an ever increasing number of people are buying the latest, sleek, intelligent products –based on popular platforms such as Windows and Android. Since these same products are sold by Taiwan brands globally, a rather large worldwide market opens up to the Indian developer. The timing has never been better for an India-Taiwan (software-device) combination that can take over markets all over the globe – a rather win-win situation for both sides.

Worldwide tablet shipments from Taiwan expected to go from 35 million units in 2011 to a whopping 116 million units in 2014!

AVerMedia HomeFree Combo F210

Do you enjoy watching TV, but have too many devices and hate cables running all over your home? Then the AVerMedia HomeFree Combo F210 is what you need. Just connect this network-streaming device to a wireless router and your TV, and voila! Live broadcasts on your iPad or Windows PC. You can watch an HBO movie on your PC, or catch the news on your iPad! If that's not enough, you can also record and playback with a mere click.

BenQ Joybee GP2

This mini LED projector is packed to the brim with loads of features. It includes an all-in-one iPhone/iPod-compatible dock, an optional battery pack for 2 hrs of viewing time, power-efficient 3LED projection, 720p short-throw projection, 200 ANSI lumen brightness, supports almost all formats, has an SD card slot, a USB reader, can store 2 GB of data in its internal memory, and even has 2W stereo speakers. Sharing videos, photos and games with family and friends on a brilliant 160-inch cinematic display was never this easy!

ASUS Eee Pad Transformer

ASUS' Transformer has a 10.1-inch screen and is a cross between a tablet and a laptop. Use the docking station and you have a notebook PC with a comfortably spaced QWERTY keyboard; detach the dock and it's a tablet – just walk away, still computing to your heart's content. The device runs Android 3.0 Honeycomb and supports 10-finger multi-touch. Under the hood is a dual-core 1 GHz NVIDIA Tegra 2 processor, 1 GB RAM and 16/32GB storage. The docking station has its own battery, and the combined device can stay powered for up to 16 hours!

ASUS Padfone

Another breakthrough product from ASUS which combines smartphone and tablet into one symbiotic device that allows you to choose the screen size that best fits your activities. With the Padfone, the smartphone docks inside the tablet to recharge from the tablet's larger battery and the tablet can also make use of the smartphone's 3G internet connection. Apps transition seamlessly when you switch between the two devices too! Brilliant!

PRODUCT WATCH

Although we can't feature all of the hundreds of products that Taiwanese brands launch – on pretty much a weekly basis, at that – we can give you a peek at the top products to come from Taiwan, which will hit Indian stores soon

ASUS G74SX

The latest bad boy among high-performance gaming laptops, the ASUS G74SX has a 17.3-inch, full HD, Glare 3D screen, a quad-core Intel Core i7 2670QM processor, 16 GB of DDR3 RAM, 2 x 750 GB, 7200 rpm hard drives and an NVIDIA GeForce GT 560M GPU with 3 GB of dedicated RAM! If that doesn't tame the most demanding games, nothing else will. Overall, a jewel from the ASUS stable.

ADATA Nobility SH14 Portable Hard Drive

ADATA Nobility SH14 Portable Hard Drive features military-grade shock resistance, and is water-resistant thanks to its smooth, non-slip, silicone exterior. It's a 2.5-inch, 5400 RPM drive and delivers a blazing fast 90 Mbps transfer rate thanks to the USB 3 interface. Available in passion red and jet black, and 500 GB, 750 GB, and 1 TB capacities, this stylish new addition brings to the market a strong combination of fashion and ultimate durability!

MSI GT680

If the computing work that you do entails churning around large amounts of data, then you must get hold of a device like the GT680. This laptop is supported by MSI's turbo drive engine technology, which can boost up speeds by as much as 75 per cent! The laptop also features an exclusive cooler boost technology, so you never have to worry about overheating, especially considering the power on tap here.

HTC Explorer

HTC has just introduced ones of its most affordable, yet full-featured Android smartphones, HTC Explorer, that looks set to provide feature phone upgraders with more innovation options. Dubbed HTC Explorer, it sports a distinctive design, 600 MHz processor and a 480x320 HVGA capacitive display. The petite, well-built HTC Explorer, which will feature Sense 3.5 and comes with Android's Gingerbread 2.3 build, will be available Asia starting in Q4 2011, with India as the global launch market. HTC Explorer offers users the perfect blend of ease of use, design and trademark HTC innovation that promises to be a hit in the budget smartphone market.

YouTube sells merchandise
YouTube launched its Merch store, which allows
buying and selling of merchandise, including music

Inner Eye
A smartphone ultrasound device has been
launched, facilitating scanning on the go

Google enters its teen years, celebrates with a party-themed doodle

Now officially a teenager, Google celebrated its 13th birth anniversary on September 27th along with a doodle on its homepage featuring the five letters of the company logo donning party hats, seated around a cake with balloons and gifts – a typical birthday party scene.

When clicked, the Google doodle directs you to the search results for "Google". The popular search engine giant was started as a research project by Larry Page and Sergey Brin in 1996. The company filed for Inc. on September 4, 1998 and booked the Google.com domain on September 15, 1998. However, the company officially chose to celebrate its birthday on September 27.

Google's 13th anniversary comes at a time when the Internet giant is facing stiff competition from Facebook. As you may have already noticed, the rivalry between Google and Facebook has intensified, with both sides frequently rolling out new services and features. On the other hand, Google still enjoys strong presence online with research showing that Google is maintaining a nearly 90 per cent share of the global search engine market. **d**
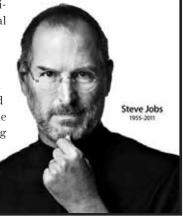
The world loses an icon

Steve Jobs passed away on October 5th, aged 56, succumbing to the pancreatic cancer he'd been battling since 2004. The co-founder and chief architect of one of the biggest companies in the world, Apple Inc., Jobs was a visionary who had a large hand in shaping the world we live in today, giving us everything from the personal computer, to digital music distribution and the quintessential smartphone.

Apart from the words from Apple's Board of Directors, newly appointed Apple CEO Tim Cook, and Bill Gates, tributes from the common man are flooding the Internet, with people also flocking to Apple's stores and offices to leave mementos, flowers, pictures and post-its in memoriam to the enigmatic futurist.

A creative genius, Steve Jobs's zealful personality was one of the principal driving forces behind personal computing, one of the folks "crazy enough" to change the world. The sad news of his demise has had a profound effect on all of us. R.I.P Steve Jobs.

Steve Jobs
1955-2011

Samsung launches mirrorless camera - the NX200

Samsung is now setting its sights on the high-end camera segment as it reveals its target to sell nearly 150,000 - 250,000 units of its "mirrorless" cameras by the end of this year. Samsung has high expectations from its NX range of cameras, which are known for their interchangeable lenses and mirrorless design. Samsung's announcement comes close on the heels of the launch of the new NX Series camera called the NX200.

The NX200 has been initially launched in Korea and is likely to be rolled out globally by the end of October. It is said to be a lighter and sleeker version of its predecessors and is capable of taking faster shots without distorting the quality of the images. The device has been priced at $840 (₹40,000) in Korea.

However, it's not only Samsung who's manufacturing mirrorless cameras. Brands such as Olympus and Panasonic have already been selling mirrorless cameras for quite some time now. The latest to join the mirrorless camera bandwagon is Nikon with its Nikon 1 series camera. The cameras are scheduled to go on sale in Japan and are expected to be priced between $500-1,000 (₹25,000-50,000) **d**

Sennheiser India intros three Adidas Originals headphones for the festive season

Sennheiser Electronics India has launched three new headphones for the Indian festive season, two streetwear models for consumers – HD 220 and CX 310 – and one premium model for audio professionals and DJs – HD 25, with rotatable capsules for one-ear listening.

All three headphones have been launched in collaboration with Adidas Originals. According to the press release, the "trefoil brand" has been

"linked to the music scene for a long time and is connected uniquely to the beginnings of Hip Hop in the 1980s." What this means here is that famous trefoil design of the brand, and/or its current three-stripes Originals avatar, will feature prominently onboard, making the headphones even more appealing to sports fans, hip hoppers and the general youth.

For more details about the Sennheiser Adidas Originals headphones, refer to the Sennheiser India site at http://bit.ly/pugUYO. They're available at all major electronic stores across the country.

Croma offers Intel Anti-Theft Service

Croma has announced that it's now retailing Intel Anti-Theft Technology (Intel AT), as an optional upgrade for Sandy Bridge-based laptops at its stores. The initiative is said to be a first of its kind in the country and is available exclusively at Croma.

The Intel Anti-Theft Service is custom activated on laptops with the Sandy-Bridge processors, and allows customers to remotely lock down their missing, or stolen laptops. The built-in technology works even if the hard drive is reimaged, a new hard drive installed, or the boot order changed. The laptop will remain locked, and will not boot. The lock down is activated via an Internet notification or intelligent hardware timers.

Users will be able to also display a custom message on their locked laptops. Laptops can then be fully revived to normal functionality with the user's personal password.

Croma will offer the theft protection service bundled with select laptops as well as offering it as a paid option starting ₹199 for a period of two years. Intel will be responsible for service hosting, customer support and working with different OEMs to ensure their laptop hardware is embedded with the technology.

Indian government launches Aakash tablet; to be sold for ₹3k in retail

The Indian government's ultra-low cost tablet, now known as "Aakash", has been officially launched. The Aakash tablet, previously nicknamed as Sakshat, looks different from the prototype flaunted by the telecom minister, Kapil Sibal, last year. However, the specs of the device remain as previously reported.

The Aakash tablet will be manufactured by Datawind, it runs on the Android 2.2 Froyo OS and offers Wi-Fi and USB connectivity, 256 MB of RAM, 2GB in-built storage, which is expandable by up to 32 GB via microSD (2GB microSD card bundled).

There are two versions of the device — the more basic Aakash tablet, for educational institutions, will be sold at $35 (₹1,750) and the Ubislate tablet, for retail at $60 (₹3,000). The UbiSlate come bundled with a cellular mode DataWind has also set up a new production line in Hyderabad to manufacture the tablets.

Connections

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A round-up of the major smartphone
OSs on the market

30 **Security watch**
Hackers, privacy, stuxnet, see what's
troubling the web today

Facebook unveils Timeline and Open Graph apps at f8 Developer Conference

Facebook CEO Mark Zuckerberg announced some brand new features which you will see on Facebook in the coming weeks, at the f8 Conference in San Francisco. Zuckerberg laid out Facebook's vision for the future of profiles on Facebook, integration of music streaming services, news aggregation and other content spotting on the web site.

Mark Zuckerberg introduces Timeline

The first feature that was unveiled was Timeline. This is a complete revamp of the website. Timeline is a new way to express yourself to the world. It aggregates all the content you have created and uploaded on Facebook in a nice flip book sort of way. The idea behind this being that a person is much more than his present status, according to Zuckerberg.

There is a central line which splits your screen into half and there are dots which expand on either side of the line to give information on the person. As you scroll down you will get to know about the major events from the person's life in the form of photos, videos, status updates,

apps, etc. This timeline goes back upto 2004 and then you have a 'Way Back' section where you can upload content from before 2004. Think baby pictures from your birth year, your award winning school essay, videos from your uncle's wedding, etc., all before 2004.

One interesting aspect of Timeline is the huge header image which it allows you to upload. Scrolling through the profile can also highlight aspects of the users personality. For instance, if you are a photographer or a musician, then you can put up a powerful header image which communicates that fact. You have complete control over who views your timeline.

Another feature Maps feature, which lets you view where all you have been all these years. This is possible thanks to the Facebook Places integration.

How many times have you wanted to check out an app and had to answer that pop up asking your permission? Well, Open Graph is a whole new category of apps which will allow you to add activity to your stream without addressing any unwanted prompts asking for permission. You will get a single Permissions page that will allow publishing of all the app related data on your timeline.

Pattern Recognition was a common theme in the key-

Facebook timeline

note of Zuckerberg. He plans to make sharing a seamless experience on Facebook. Stuff like streaming music, TV content and news sharing has been

around since ages. But Facebook with its new Open Graph app ecosystem, plans to collaborate with a lot of news websites, music streaming services and TV content streaming services to allow you to read news, watch TV and listen to music based on what your friends are doing. So if your friend is listening to a particular song, you will get an update in your Facebook ticker about the same, and you can start listening to that same track simultaneously provided you have the necessary app. 🔲

Airtel Broadband launches 'Smartbytes' additional data usage packs

Airtel Broadband customers irked about the fair usage policy and high-speed data transfer limits on their 'unlimited' plans might be happy to learn of the company's latest announcement. Now, instead of settling for a lower bandwidth after reaching their data usage limits, customers can purchase additional data usage packs called Smartbytes.

Airtel Smartbytes range from 1GB to 50GB and start from ₹99. Apart from "augmenting their high speed data transfer limit", Airtel Broadband customers will now have a way to track their monthly data usage, with notifications about their billing cycle and the amount of data left in their plan. Airtel already sends notifications to customers when they've reached 80% and 100% of their high speed data transfer limits.

To use the Airtel Smartbyte service, customers who've used more than 80% of their data transfer limit plan can log on to http://airtel.in/smartbytes via their Airtel DSL connection, and opt for their choice of additional data usage packs, which have been listed below with their pricing:

- 1GB for ₹99   10GB for ₹499
- 2GB for ₹159   20GB for ₹799
- 5GB for ₹299   50GB for ₹1,499

Connections

Chrome overtakes Mozilla
Chrome has finally overtaken Firefox in terms
of acceptance

Larry and the fox
Mozilla has integrated twitter search into
Firefox 8

Google unveils the digital Dead Sea Scrolls – ancient texts, indexed

In keeping with its professed aim of digitizing the real world, so that it is accessible, indexed, and searchable online, Google has collaborated with the Israel Museum, and brought the Digital Dead Sea Scrolls online.

The Dead Sea Scrolls are considered by historians to be the oldest known biblical manuscripts in existence, dating back to the third century BCE and first century CE. The scrolls were discovered in eleven caves on the shores of the Dead Sea, between 1947 and 1956, and have provided scarcely known details about the Second Temple Period, alongside the birth of Christianity and Rabbinic Judaism.

Digital Dead Sea Scrolls

Five complete scrolls have been digitized so far, with The Great Isaiah Scroll the only one featuring the translation option. More will presumably, follow.

Accessible by all, the Dead Sea Scrolls Digital Project allows users to examine these ancient treatises in great detail, with fast-loading, searchable high-res images and soon, complete translations as well. Users will also be able to submit translations in their own languages.

Also provided alongside are explanatory videos, background information on the texts and details about their history. The Dead Sea Scrolls Digital Project is certainly a laudable effort by Google, and history buffs have inarguably been given a rich new source of excitement, sitting in the comfort of their homes. We look forward to other treasured and preserved works making their way online, to be preserved indefinitely, digitally, and available to all. **d**

Indian government offers ISP license to Qualcomm

The Indian government has granted an ISP license to Qualcomm. The authorisation paves the way for the company to launch its broadband services in the country.

Qualcomm had paid nearly $1 billion to win Broadband Wireless Access (BWA) spectrum for four circles – Delhi, Mumbai, Kerala and Haryana. To launch its services in the country, the company was required to get the ISP license from the Department of Telecommunication (DoT). However, the application for the license was rejected for ostensibly missing the deadline, and seeking a different license.

Qualcomm yesterday disclosed that it had received a letter from the Indian telecom ministry, granting it a license for the four zones. "Qualcomm has received a letter dated October 10 from the department of telecommunications offering to grant us a licence covering all the service areas for which we won spectrum," the company said in response to a query.

Confirming the development, telecom secretary R Chandrasekhar said, "A decision has been taken to grant an ISP licence to the company." He further added that the decision is with respect to one subsidiary designated by the company as a nominee. **d**

Sony security breach temporarily affects 93,000 PSN, SEN and SOE accounts

It's been a while since Sony was hacked, and it seems a bunch of hackers feels much the same way, briefly gaining access to a large number of PlayStation Network, Sony Entertainment Network, and Sony Online Entertainment accounts in mid-October.

Sony announced the breach this morning, after it had locked down approximately 93,000 affected accounts. According to the Japanese giant, the hackers possessed "a massive set of sign-in IDs and passwords," and but were only able to access "less than one-tenth of 1 percent" of all accounts – making this breach not as massive as the first one which took out 77 million PSN and Qriocity accounts earlier this year.

Users whose accounts were affected can already regain access, with Sony sending out password reset mails to reactivate the locked accounts. While the intruders had managed to get past the verification stages, the affected users' credit card information was "not at risk", according to Sony. A "small fraction" of the 93,000 accounts however, "showed additional activity prior to being locked," and Sony is investigating what happened during this period, and will restore any unauthorized transactions. **d**

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A war in your pocket

A round-up of the current mobile platforms vying for your attention

Symbian OS

Symbian and Nokia have shared a very long and rich heritage in India, with the Nokia Symbian 60 devices being literally synonymous with smartphones. Nokia later bought Symbian OS in 2008 and started developing S60v5 as Symbian ^1 through to the current Belle. A variant of the S60v5, the primary upgrade to the OS was the integration of the UI into the OS itself, which resulted in an increase in performance. By this time of course, the iPhone and Android had launched and Symbian has desperately been trying to play catch-up ever since. The cur-

rent update, Belle, introduced re-sizeable, live, widgets and, notifications in the lock-screen, NFC and numerous UI tweaks. The interface is also quite zippy and the browser is one of the few mobile browsers that supports flash natively. The future of this OS is still dicey though, especially with its owner, Nokia, planning a switch to the Windows Phone 7.5 OS.

Windows Phone

Microsoft has been making mobile operating systems for almost 10 years now. The interface then looked more like a simplified version of Windows Desktop OS. Windows Mobile underwent a slow evolution, but it wasn't till WM6 and further updates that the OS actually acknowledged the fact that a touchscreen needed something more than a stylus. The interface underwent a serious overhaul, and started incorporating a text based UI. Finally, in 2010, Microsoft launched the completely revamped Windows Mobile OS as Windows Phone 7. The interface was a very unique, list-based Metro "design language". That and the introduction of "live" tiles set the OS apart from its brethren. The initial WP7 OS was an aesthetically pleasing, but essentially crippled OS, not even having the ability to set custom ring tones. It took 2 major upgrades, NODO and Mango, to bring the OS up to speed with the current generation platforms. At its current state, WP7.5, the OS is packed to the gills with features and can give any current mobile OS a run for its money. It does, however, suffer from a severe lack of apps. A complete list of features can be found at http://bit.ly/WPmAnGo.

Apple iOS

The birth of the iOS, formerly iPhone OS, dates back to 2007. At the time it was launched, Nokia with its Symbian OS and BlackBerry OS were the reigning kings of the smartphone market. The initial version of the OS was quite simplistic, lacking even copy-paste functionality. The OS was originally developed for the iPhone, but later on further developed as a platform for all apple devices except the iMac. The OS started picking up speed at an exponential rate and almost single-handedly ousted Nokia

from its top spot in the smartphone market by the time iOS 4 was out. The features it introduced were quite revolutionary at the time, but with the advent of the open-source Android OS and the growing threat from Microsoft with its upcoming "Mango" update, iOS 4 started to look old very fast. Finally, apple announced its iOS 5 upgrade for iPhone, iTouch and iPad. The upgrade, while absolutely huge in terms of features was, again, mostly essential updates and just enough to keep the OS at the same level as its competition. iOS 5 did

bring along some very interesting features such as air-play mirroring, an improved browser, support for cloud services, PC-less operation and many more. Apple iOS used to set the standard for OSes in its heydey, but at the rate at which OSes are evolving, the iOS is now struggling to keep up. The OS is still as popular as ever though, and as long as Apple keeps updating their software, it is very unlikely that iOS will fall from favour any time soon.

Mobile watch

Samsung BADA

Bada is a linux based OS developed by Samsung for, as they put it, "a smartphone for everyone". It was in 2010 that Samsung announced their first Bada 1.0 powered device. When the OS was first launched, it was a very basic OS with just the bare essential features to classify it as a smartphone. With the upgrade to Bada 2.0, the OS is right up there with all the big guns of the smartphone world. The update brings with it speech recognition, multitasking, a full-fledged web browser with flash support, NFC, Push notifications and many more. The app marketplace has also slowly been growing and now includes over 7,000 apps. Samsung has announced plans to make this OS open source and to also integrate it into their upcoming Smart TVs as well. Overall, this OS does have a lot of potential. How the public receives it remains to be seen.

Android

Android is a comparatively new entrant in the smartphone OS arena, but has risen to popularity at such a rapid rate that it has acquired almost half the smartphone market share in the world. The comparatively rapid update cycle meant that despite a rocky start, the OS now sets the norm as far as the mobile OS is concerned. Android has gained a lot of popularity and has completely dethroned Nokia and is slowly eating its way into Apple's, previously untouchable, market share. Now with the release of Android v4.0, the OS is packed to the brim with every feature you can think off, flash support, apps, "goggles", NFC (Android Beam), threaded messaging, tethering, face recognition and many more. The v4.0 upgrade is supposed to be a merger of Honeycomb and Gingerbread. The upgrade does not seem like anything much when compared to the iOS 5 or Mango updates, but this is because the OS already had most of those features integrated to begin with. This OS is here to stay and is only getting better with time.

BlackBerry OS

The ubiquitous businessman's smartphone, BlackBerry did to email what apple did to music. BlackBerry tightly integrates its OS with its devices and tries to ensures quality "push" mail service no matter what. Now, with almost every service that a BlackBerry provides available on most smartphones, BB is rapidly losing market share. BB OS has always been a very good, reliable and secure OS, but was never much of a multimedia device. The recently announced BBX OS update will completely revamp the BlackBerry as a device. It will run on the QNX platform which means that will not be backward compatible with OS7 devices. The OS7 update brings with it an upgraded graphics engine, voice activated search as well as NFC and a much better browser and HD video recording. RIM hopes that this upgrade will keep it in the running as a competitive OS.

Everyday security threats!

The idea of a secure watertight Web still remains an unattainable dream, despite efforts to make it a reality. Here's what crippled your web experience last month

Sony PSN network hacked again!

These guys just can't catch a break. Gamers on Sony's Playstation Network (or PSN) skipped a heartbeat yet again as the entertainment giant's secure network was targeted by hackers for the nth time this year. On a company blog entry (goo.gl/HH38W), Sony's Chief Information Security Officer, Philip Reitinger announced that "less than one tenth of one percent (0.1%)" of the networks' users may have been affected by a hack attack. Well, that itsy-bitsy number roughly constitutes about 93,000 user accounts. Yeah, you read that right.

However, Sony maintains that credit card data of affected user accounts isn't at risk. "We will work with any users whom we confirm have had

unauthorized purchases made to restore amounts in the PSN/SEN or SOE wallet," Reitinger further said. If you can't get on to Sony's PSN, don't fret—affected Sony Online Entertainment accounts have been turned off. Users "will receive an email from us at the address associated with your account

that will advise you on next steps in order to validate your account credentials and have your account turned back on."

Meanwhile, Facebook's privacy woes continue...

Security and privacy glitches constantly hound Facebook, an unwanted trend for the world's largest social network. To counter the spread of malicious links through its medium, Facebook recently started scanning for malicious URLs on its network – a seemingly wise move, right? Yes, maybe, but FB's new security measure didn't work for too long.

A certain "hatter" from a hacking group called Blackhat Academy provided a live demo of how to circumvent Facebook's latest security feature. There goes Facebook's partnership with Websense to use a real-time, cloud-based scanner for detecting malicious viral URLs. Probably didn't see that coming, did you Facebook? Let's hope you up the ante some more.

IE9 is more secure than Chrome, Firefox

Yeah, that's right. According to a recent report, Microsoft has launched a new web site to educate netizens about security issues in modern Web browser, hoping they take browser security extremely seriously. The web site – yourbrowsermatters.org – lets you gauge the strength of your

browser against the nasties of the Internet.

For example, the web site lets you view scores of various browsers — Internet Explorer, Google Chrome, and Mozilla Firefox are the only browsers supported for now. It isn't surprising that Microsoft's IE9 scores a perfect 4 out of 4; Chrome and Firefox don't get full marks. There's no detailed explanation in the "malware" tab of the window as to how Microsoft tabulates scores, but we guess, just like beautyoftheweb.com, one will have to take these scores with a pinch of salt.

Microsoft argues on its blog (goo.gl/z5eLt), citing its latest Security Intelligence Report (goo.gl/DHDnS), that zero-day attacks amount for less than 10 per cent on the web these days, where most successful malware proliferate through outdated software and social media. And as IE9 is better in countering these specific holes, you're better off using it. Compelling argument?

On hacker territory

If you were ever wondering how a hacker forum compares to any other online forum, wait no more. Imperva, a security firm, has released

a monthly report detailing the topic trends of an online hacker forum with 2,20,000 registered members. Although most of the members are dormant, the forum is a hotbed for hackers discussing training methods. It's a platform for collaborating, recruitment and even commercial activities (selling stolen data and malware). It's an insightful read, just go here: http://goo.gl/cPJP7

Stuxnet returns

A worm, using a variant of the stuxnet code, labelled Duqu because of the DQ prefix on files it creates, has been detected and is currently being analysed by McAfee and Symantec among others. The worm is essentially similar to Stuxnet and thus, is targeting industrial systems at the moment. It's currently only gathering detailed information including security certificate which, experts suggest, will be used for launching further attacks. The virus was initially designed with a lifespan of 36 days and experts are very concerned as to what Duqu 2 will be like. Especially considering that stuxnet was designed to pull down Iran's nuclear program. **d**

Project Roslyn
Microsoft has reinvented compilers with Roslyn Technology that deconstructs every piece of code as a service

High-tech magic
Watch Marco Tempest pull off some amazing high-tech magic tricks involving iPhones, Google+ and more http://bit.ly/qjCmfg

Racing fever on your smartphone!

With Formula 1 coming to India for the first time, the excitement has ensured that a lot more people than ever before follow F1 now. For the true fans amongst us, there are a bunch of smartphone apps that are helpful. Particularly when Race Day is on and you're away from a television

Vishal Mathur
vishal.mathur@thinkdigit.com

F1 2011 Timing App CP

By: Soft Pauer
Available for Android, iPhone, iPod Touch and iPad
Price: ₹1,455 (Android Market), ₹1,589 (Apple App Store)
Download size: 1.28 - 15.1 MB

F1 2011 Timing App CP

This is a must-have application for all F1 fans. Featuring live updates of lap times, maps with the car positions on track and the ability to follow a driver around the circuit. Plus, you get text updates. We know this is a slightly pricey app, but it's definitely worth it. Just make sure you have a fast net connection with an unlimited data plan.

Formula1.com 2011

Formula1.com 2011

By: Formula1.com
Available for: Android, iPhone, iPod Touch, iPad, BlackBerry and Symbian
Price: FREE (on all platforms)
Download size: 1.1 - 2.3 MB

A truly global app for the smartphone ecosystem, it covers most smartphone platforms. You get race weekend details, session timings, live timings, track data, lap times and the championship standings. Download this on your phone, it's free anyway.

F1 2011 Live24 (also known as Livesports24 F1 Racing)

By: Genera Mobile
Available for: Android, iPhone, iPod Touch and iPad
Price: FREE (on all platforms)
Download size: 1.1 - 1.6 MB

This app perfectly blends functionality, lots of features and a visually impressive UI. Multiple boxes display all the info you need. In the first tab, you see the countdown to the race, updates when it goes live, the venue and the venue track weather conditions. The second tab shows the date and time of the various sessions scheduled for that race weekend. An image gallery is also available, as are dedicated profiles for each driver, complete with their career stats.

Racing games:

If you don't want to follow F1 seriously, we're sure some racing games for the smartphones will surely catch your fancy.

- NFS Shift – available for Android and iOS.
- NFS Shift 2 Unleashed – available for iOS
- Asphalt 6 Adrenaline – available for Android and iOS. **d**

F1 2011 Timing App CP

RIM explains reasons for BlackBerry Crash

The fact that BlackBerry services were out for almost three days, spanning four continents (Yes, America joined the fray on the third day), led to a lot of teeth gnashing.

BlackBerry

RIM released a statement saying, "Although the system is designed to failover to a back-up switch, the failover did not function as previously tested. As a result, a large backlog of data was generated and we are now working to clear that backlog and restore normal service as quickly as possible. We apologize for any inconvenience and we will continue to keep you informed." Apart from the services not working properly, it was very annoying that none of our cellular operators were giving out information about the reasons why the services were down and when they would be back. Three days of sheer madness! **d**

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- **E-Commerce**

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Mostly Priceless

You may or may not have heard of these games, but we really think you should play them. There's nothing to lose, after all – they're all free!

Sriram Gurunathan
readersletters@thinkdigit.com

Cave Story

Cave Story is a 2004 2D platform-adventurer for the PC which features a silent protagonist who tries to foil the designs of an evil overlord – The Doctor – and his army-building designs to take over the world. He does this despite waking up in a cave (where else?) with no recollection of his past.

Gameplay is primarily puzzle platform-based, and the player also has weapons he can shoot enemies with. Switching between multiple weapons is possible, as is the leveling up of said weapons via power ups and capacity upgraders. In the same vein though, taking damage can downgrade your weapons. **Link:** http://bit.ly/2PuKWy

Corporate Climber

Most of things we do in our lives have made their way into video games, so why should climbing the corporate ladder be any different? In the browser game *Corporate Climber,* the player aims to... er... climb, crawl and trample his way right from the bottom rung (a lowly peon who for some reason is naked) to the very top of his organisation.

This is done by platforming through levels where you're given specific tasks to complete, which range from avoiding some naughty toilets to sending as many spam mail as you can. The game is pretty fun, with plenty of subtle and not-so-subtle jabs at the corporate culture and materialistic lifestyles most of us lead. **Link:** http://bit.ly/aNfRuM

International Cricket Captain 2005

Think you're better than the Mahendra Singh Dhonis of the world? This is the game for you then. You can choose to captain an English county side and work your way up to, or start directly off with, an international side of your choosing. The *ICC series* are Sports sims devoid of any actual gameplay – your role is more of a non-playing captain or coach as you supervise training schedules and team selection, set fields and decide batting and bowling strategies. You can then sit back and watch the action unfold on the game's highlight engine. **Link:** http://bit.ly/oG9y1q

One Chance

Another browser game, this one features a rather interesting premise. All of Earth's living cells are going to be destroyed in the next six days, and you have the choice to live your last days any way you want to. The game has multiple endings that are triggered by your actions throughout the game, but as the title says – you only get One Chance – and only one ending. There are ways to work around that, of course. We really liked the concept and the ADV-like execution. **Link:** http://bit.ly/e188oP

Trilby's Notes

This game is part of the *Chzo Mythos series* created by Yahtzee, of Zero Pronunciation fame, and is the third game of the series. Chronologically though, it slots in at second. The series borrows horror themes from other forms of fiction, with *Trilby's Notes f*eaturing a rather undesirable alternate dimension a la Silent Hill.

While the earlier two games in the series featured point-and-click gameplay, *Trilby's Notes* relies on keyboard navigation and a text parser for inputing commands. The game is widely considered to have solid writing and challenging puzzle gameplay, and we don't particularly disagree. Give it a go regardless of whether you enjoy your chills and thrills or not. **Link:** http://bit.ly/22bF50

Super Mario Bros. Crossover

SMB Crossover is a browser game that is – like its name says – a crossover. The levels are still from *Super Mario Bros.*, but the player now has the option to call in quite a few characters from other games in the NES era. These include Bill from *Contra*, Link from *Zelda*, Samus from *Metroid and MegaMan*, to name a few. Each character brings in its own set of moves and attacks to the table, but in a way that fits with the Mario universe and gameplay mechanics.

A lot of thought has been put into adapting the characters for Mario, and it shows. The player

has the ability to choose the character he wants to play with at the beginning of each level, and this choice is quite an important one because a character's quirks could make the level easier. Contrarily, they can also make the stage impossible to clear, so choose wisely. How this hasn't been hit with a lawsuit, we don't know, but we aren't complaining because this is one mashup that works spectacularly. **Link:** http://bit.ly/bZ1CrT

OpenTTD

OpenTTD is an Open Source adaptation and expansion pack to Chris Sawyer's (who later created the *Rollercoaster Tycoon* amusement park sim franchise) *Transport Tycoon Deluxe*. It adds bigger maps, online multiplayer and other features to the transport sim where players managed a company that dabbled in

rail, road, naval and air transport to deliver cargo – be it goods, passengers or mail – to and from industries and cities.

We sank hours and hours into *Transport Tycoon Deluxe* back in the day, and we're most definitely glad to see an Open Source version that is much improved, supports various operating systems and allows user-generated content and patches. **Link:** http://bit.ly/1oKPts

But That Was Yesterday

It's strange, we'd love to tell you what this short, abstract game is about, but we'd also hate to in fear of hampering your whole experience. What we can tell you, however, is that this atmospheric platformer has a quirky narrative that somehow manages

to both, depress and uplift you at the same time. The animation is sweet, as is the overall game design. The game lasts around 10-15 minutes on an average, but we believe it's something definitely worth checking out. **Link:** http://bit.ly/adb42T

Frets on Fire X

With the *Guitar Hero* and *Rock Band* music franchises dead, what better time than now to recommend this little gem? *Frets of Fire* is a game for Windows, Linux and Mac OS X that aims to replicate the *Guitar Hero* experience. Players have to consistently hit the right keys at the right time in order to get some good multipliers going and eventually a high score.

Frets on Fire X, which was a series of mods that ended up branching off from the original game, features support for upto four players and tracks for drums, bass guitars and vocals. The Fret Editor gives users the ability to create and edit custom song challenges. *Frets on Fire X* has access to a user-generated library of over 2,800 songs, which is hours and hours of entertainment if you enjoy this genre. **Link:** http://bit.ly/1EqP7B

Total Extreme Wrestling 2005

TEW 2005 is a pro-wrestling business simulator that lets players run a wrestling promotion the way they see fit. Players have control over the storylines, matches and their outcomes, and feuds and contracts of their organisation, to name a few things. The ultimate aim of the game is to put on the highest quality shows, have the largest fan base and make the most money while you're at it.

The game features a fictional universe, but there are real world mods available, which will give you access to real world promotions, wrestlers and staff – a cool addition.

Mods are also available for various time periods. So if you think you can save WCW from going under, go ahead and take control in 1998. http://bit.ly/1ag7DW.

GAMERS ARE
SOCIAL
ANIMALS

Over the years, gamers have been generalised and portrayed as brooding, introverted geeks, so much so that some might say there's a social stigma attached to being a gamer. We play mythbusters and hope to dispel the veil of misinformation that surrounds this subject

Sriram Gurunathan
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Most people seem to think of gamers as dark, anti-social beings. Nothing could be further from the truth. Gaming is a highly social activity, what with the extensive number of gamers who meet, interact and develop friendships using gaming as a vehicle.

Online multiplayer gaming is the Facebook of gaming networks. Even while seated in their rooms, gamers can meet other gamers from all over the world by taking their games online.

Most games and multiplayer platforms such as Xbox Live, PlayStation Network and Steam also allow you to add others to your friends lists and play with them frequently. And then you have online clans, wherein fraggers team up frequently in

an effort to rise up clan rankings. As more and more games feature co-operative game modes, more and more gamers are teaming up in an effort to experience these modes. So much so that game sales are being influenced most significantly by the strength of their multiplayer component, rather than by the single-player campaign.

This escalates when the topic of Massively Multiplayer Online Games

comes up. These games feature persistent online worlds where players compete with, or support each other. Players band together to attempt quests and clear missions in MMORPGs, thus heightening their social activity

and usually moving their relationships to the next phase, viz the offline world. Take Tamara Langman and John Bentley, for example, who met each other when logged into *World of Warcraft* and eventually ended up getting married.

World of Warcraft and *Runescape* are the most popular MMORPGs, with the former holding a 11+ million paying subscriber base, despite using a pay-per-month model. *Runescape*, which is free to play, has over 156 million registered accounts. These numbers immediately tell you that tons of people out there like playing games that are purely multiplayer.

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GAMING IS A SOCIAL NETWORK

Add casual online games to the mix and the list grows even larger. Social networking games such as *Farmville*, *Mafia Wars* and *Poker* encourage user-to-user interaction in terms of gifts, chips and the like. *TyprX* is a useful competitive game in work environments – it compares typing speeds among individuals. In the mobile territory, games such as *Word-feud* recently spiked in popularity, with gamers competing on their smartphones.

Moving offline, we've seen people compete with each other over who has the higher *Angry Birds* level score. *Monster Hunter Portable*'s popularity in Japan rose to very lofty heights, as players formed parties and traded items using the PSP's ad hoc mode. In the competitive gaming scene, LAN parties and offline tournaments are as popular as always, and the formation of clans at the neighbourhood cyber-cafe is not an uncommon occurrence as gamers converge to get their challenging multiplayer fix. Also popular are gaming lounges, where tournaments are held regularly on top of offering multiplayer action along with food and drinks. These places are ideal for hosting small-scale events, LAN parties or tournaments because of the convenience offered by the all-in-one solution.

Games such as *Starcraft* and *Counter Strike* have massive follow-

We say that because gaming offers a set of features that most social networks do, and members of the community act in similar ways too!
- Gamers are constantly telling people what's on their mind, or what their gaming status is
- Gamers sometimes take pictures of their purchases or screenshots just so they can upload them and show them off to other gamers
- Most people on social networks are single. Most gamers are single

- Girl gamers are immediately hit with a deluge of friend requests on PSN and Xbox Live
- The above two may or may not be related
- Just like text talk is unfortunately a prominent feature of social networks, l33t speak is a prominent feature of gaming
- People poke each other on Facebook, gamers knife each other
- Clans and parties are the gaming equivalent of groups

ings, with *StarCraft* even becoming a professional sport in Korea. Matches are telecast on TV, and some events attract upto 1.2 lakh people in attendance! Starcrafters are media celebrities out there, with one certain player, Lim Yo-Hwan having a fan club of more than half a million members.

Casual gaming made a huge splash on consoles following the release of the Nintendo Wii, and titles such as *Wii Sports* and *Just Dance* became party staples at gamers' houses. Music games such as *Rock Band* and *Guitar Hero* also support multiplayer, which encourages quite some fun. More recently, Kinect and PlayStation Move added sizzle to casual games on the Xbox 360 and PlayStation 3 with titles such as *Kinect Adventures* and *Sports Champions*.

When it comes to talking about games, gaming forums are the places to go. NeoGAF, for example, has nearly 70,000 registered users who've made a total of nearly 32 million posts. Gamers discuss past, current and upcoming games, cross-platform and post-gaming experiences and gaming hardware. The latest news in the gaming world is also routinely thrown around and dissected, helping you stay up-to-date with information.

Other gaming communities are web sites and tools such as Playfire and Xfire, which provide players with lists of the games they've played or are playing, complete with their ratings and screenshots. They can also create automated forum signatures and the like by tracking your gameplay via achievements. These are a kind of gaming social network, where gamers find like-minded people.

So there you have it! Gamers are fiercely social creatures, despite what people might tell you. Sure, there may be a sizeable number of anti-social gamers, but there are people like that in every community, gamer or not. **d**

LossVille

It might not matter much to most of us, but India loses an exorbitant amount of money thanks to people playing Farmville. Read on to find out how and (very roughly) just how much

Sriram Gurunathan
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Whilst working on the gaming issue, someone came up with the idea of calculating how much gaming costs us all in hard cash. Now this is obviously ridiculous, and cannot be calculated without going insane, but since a lot of people in our office seem to waste time with *FarmVille*, we decided to calculate how much that silly game costs India on a yearly basis. We chose not to calculate the same for our sessions of *Quake III*, because that actually builds motor skills, team spirit, and a whole lot of other goodness – in case the bosses are reading this.

Now this is no regular calculation, and of course it will be anything but accurate, but we decided that we'd rather err on the side of caution, and be extremely conservative with our suppositions – the final figure will no doubt be a lot higher than what we arrive at.

Indian farmers?

To get anywhere, we'll first have to find out (very) roughly how many people in India play FarmVille. For this, we'll go both with Zynga's global stats and the stats given out by Zynga India head, Shan Kadavil[1]. We have numbers available for monthly Zynga logins globally (250 million), monthly

FarmVille logins globally (60 million) and daily Zynga logins from India (1.5 million). Since FarmVille accounts for 24 per cent of the monthly Zynga logins globally, let's apply the same percentage for the daily Zynga logins from India.

FarmVille probably accounts for a higher percentage of traffic in India given its popularity here. We'll ignore that for now though, and like we said earlier, try and work out a rough figure to work with. 24 per cent of 15,00,000 works out to around **3,60,000 Indians playing FarmVille every day**.

Workaholics anonymous

We went through various studies, and found that about 40 per cent of all Indians online using a PC, log in from their workplace during work hours [2]. Applying the nationwide average to our FarmVille users – despite logic and several studies suggesting that the numbers are probably much higher – we arrive at the
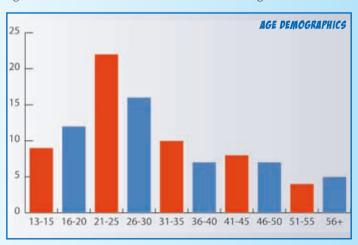
following figure:

3,60,000 x 40% = **1,44,000 users playing FarmVille at work daily!**

Give us our daily wages!

According to Zynga's Director of Brand Advertising, Manny Anekal, the average time spent by an Indian playing FarmVille is 68 minutes a day[3]. Assuming that most of us office going Indians work 8 hours a day (we certainly don't have that luxury, especially during issue closing), that's (68 / 480) x 100 = **14.17 per cent of their work day on FarmVille**.

Now, the per capita income in India is ₹46,492, and according to another study, the average income of an Indian who has access to the internet is 3.2 times the national average. This means 3.2

Here is the age spread of people logging into FarmVille. Age 21-25 wins

x 46,492 = **₹1,48,774 is the average annual salary of FarmVille players**.

The average daily income thus works out to 1,48,774 / 365 = **₹407.6**.

Since every FarmVille player, on average, spends 14.17 per cent of their working day on it, this translates to (14.16/100) x 407.6 = **₹57.743 is being wasted per person on FarmVille every day!**

For the whole of India that works out to 1,44,000 x 57.72 = **₹83,15,040 in wasted wages per day**. Again, a very conservative figure.

Bottomlines

Based on another study, corporate Indian companies pay their employees an average salary of ₹4.8 lakh per annum[4], and make a profit of ₹6 lakh per annum per employee. This means the profit-to-salary ratio per employee works out to 6 / 4.8 = 1.25 – for every ₹100 a company pays you, they expect a profit of ₹125. Applying that ratio to the amount of wasted wages per day we get a figure of 1.25 x 83,11,680 = **₹103,93,800 is being lost in terms of Indian company profits per day!**

POWER CONSUMPTION
CRT
LCD
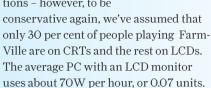
Power struggles

Moving on, an average PC running a CRT monitor will consume 100W per hour, which will consume 0.1 units.

Based on our think-digit.com analytics data, 35 per cent of visitors are still using CRT resolutions – however, to be conservative again, we've assumed that only 30 per cent of people playing FarmVille are on CRTs and the rest on LCDs. The average PC with an LCD monitor uses about 70W per hour, or 0.07 units.

Thus, we're assuming that of all the 3,60,000 people playing FarmVille (remember this includes home and office users, since we're only calculating power usage here), 3,60,000 x 30% = 1,08,000 are on CRTs while 2,52,000 are on LCDs.

Now the average cost per unit of electricity across India is ₹5.5[5]. Thus 68 minutes of FarmVille per day would work out to (5.5 x 1,08,000 x 0.1 x 68 / 60) + (5.5 x 2,52,000 x 0.07 x 68 / 60) = ₹68,320 + ₹1,09,956 = **₹1,78,276 per day in electric bills**.

This is conservative, because we're taking a very low power PC and not even counting the power that speakers draw when you play it with sound.

Totalling up

To see details of the totalling up, look at the box on your right. What this amounts to is that **India (which includes you, the FarmVille player and hapless Indian companies) spends / loses about ₹689,37,97,340 per year!**

Now imagine what that total would be if you were to start totalling up all the losses due to *all* the games we play – even just those in office hours?

Something tells us we're wasting billions of dollars on things such as Facebook, *Angry Birds*, and even good old *Solitaire*... and we didn't even know it!

How much India pays to play FarmVille everyday:

₹83,15,040 (employee wages) +

₹103,93,800 (company losses) +

₹1,78,276 (electric bills) =

₹1,88,87,116

How much India pays to play FarmVille every year:

₹1,88,87,116 X 365 =

₹689,37,97,340

Yeah, almost 700 crore rupees! This doesn't even take into account the real money being spent on micro transactions within FarmVille. The next time you consider logging into FarmVille, ask yourself – is this really important? Like ₹700 crore important?

Link Farming

[1]**Interview with Shan Kadavil, Country Manager Zynga** – bit.ly/pHXTLc

[2]**Internet usage statistics of India** – bit.ly/qV0y9m

[3]**Manny Anekal speaks at SXSW 2011** – on.mash.to/p7VnyY

[4]**Juxt India Online Report Syndicated Research Page** – bit.ly/qjXU3e

[5]**Indian Energy Exchange** – bit.ly/qN02Ig

ROG CROSSHAIR V FORMULA
Taking Aim

Whenever there's a new socket or chipset released, you can bank on ASUS to design new motherboards to take advantage of the new features. With the release of AMD's 990FX chipset that supports up to 8-core CPUs built on 32nm fabrication technology, the ROG Crosshair V Formula (C5F) is now available, and it comes with a whole bag of tricks.

3-way SLI on an AMD board? No way. Uh, way!
AMD motherboards traditionally only supported multiple graphics cards if they were running in CrossFireX mode, but the C5F breaks through with support for up to 3-way CrossFireX and SLI mode. Wait. What? That's right, this bad boy is able to house NVIDIA® graphics cards in 3-way SLI mode, so you have choice when it comes to how you want your video displayed. The C5F also has the revamped GPU TweakIt so you can adjust the GPU's settings from an external notebook in real time without rebooting.

ThunderBolt and lightning, very, very frightening!
The C5F also comes bundled with the ROG ThunderBolt, which was first introduced with the ROG Rampage III Black Edition back in March. This lovely piece of tech combines two often overlooked features: LAN performance and audio. It features a Bigfoot Networks™ powered NPU with Game Networking DNA software to optimize gaming network traffic in real-time. To keep your ears entertained, a XONAR™ powered audio solution drives crisp audio so you can hear every little detail in games.

Sound and speed to dominate
The C5F is embedded with an Intel® Ethernet port for super quick connections, but also ROG exclusive Game- First technology to prioritize and optimize network traffic, so you can download and game at the same time without always getting lag-pwned. The onboard audio isn't the basic audio in most motherboards, but a SupremeFX X-Fi with built-in 8 channel support. It'll provide you with EAX Advanced HD as well as THX TruStudio sound so you'll hear life-like in-game audio, such as footsteps from when your enemy turns the corner right into your waiting gun.
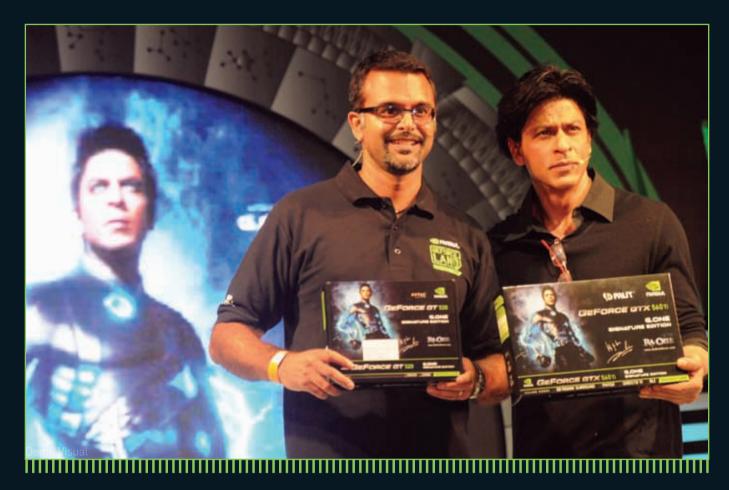
Performance Royalty
The AM3+ CPU support is definitely nice, but the software got a nice bump in features as well. There's the new UEFI BIOS that's controllable with a mouse. No more jamming on the keyboard while you adjust BIOS settings, just click, click, click away. Once you've booted up, you can use the CPU Level-Up feature, which gives gamers like myself a quick boost of power to the CPU for even better performance.

Demo Visual

GEFORCE LAN 2011
ROUND-UP

October 14, 2011 saw over 600 gamers, primarily from India but also a few from across the world, converge at the MMRDA Grounds in Mumbai for a first of its kind event in India - the GeForce LAN 2011 Gaming Tournament. Gamers competed for the chance to win cash prizes, dedicated gaming laptops and a lot of pride.

Vishal Dhupar, Managing Director Asia South for NVIDIA, said: "Gaming is in NVIDIA's soul. Our cutting edge technologies allow enthusiasts to play games with eye-popping graphics and the latest effects for an immersive adrenaline rush like nothing else. Now, with GeForce LAN India, we're bringing together the people who share our passion for this electronic sport. Like other athletes, their skills deserve to be recognised and rewarded.

AN EVENT LIKE NO OTHER!

GEFORCE LAN 2011 WAS THE FIRST EVENT OF ITS KIND IN INDIA

The tournament had gamers competing in a bunch of games, most notably Call of Duty 4: Modern Warfare, FIFA 11 and Counter Strike. Orange Esports from Malaysia won the Modern Warfare tournament and walked away with Rs. 1 lakh in cash, plus Alienware M11X laptops. A similar bounty was handed out to team 'Never Say Die' for winning the Counter Strike tournament. The fairer sex were also given the chance to show off their elite skills, with Need for Speed and Grand Theft Auto tournaments for girls. The winners were Roshni. N. Tasi and Dipika Jerome respectively.

Dipika also got the chance to play Bollywood actor Shahrukh Khan at his own game, Ra. One. Chaitanya Vadulekar, the FIFA tournament champion, tried his hand out at beating SRK too - but at FIFA 11. SRK, who calls himself an avid gamer, was there to congratulate

WHAT WENT DOWN

1 Shah Rukh Khan congratulating Dipika Jerome and handing over her winnings

2 Gamers focusing their energies and vying for honour in the GeForce LAN 2011 tournaments

3 The NVIDIA GTX 560 Ti, which will now be bathed in the colours of G.One.

4 Orange Esports playing their favourite game, Activision and Infinity Ward's Call of Duty 4: Modern Warfare on stage at GeForce LAN 2011

5 SRK and NVIDIA unveil the signature G.One Edition graphics card based on the NVIDIA GTX 560 Ti GPU. Not seen in image is the G.One Edition GTX 520

the GeForce LAN winners and announce the launch of his own signature line-up of cards, the G.One Editions of the NVIDIA GTX 560 Ti and GTX 520, which feature new packaging and fan stickers.

"NVIDIA provided the technology which made the mind-blowing VFX in Ra.One possible," said Shahrukh Khan. "Entertainment is evolving – movies and games are irresistibly connected and Ra.One is a perfect example. This movie is actually about a computer game! Just as GPUs were fundamental to the making of Ra.One, they are the key ingredient in every PC.NVIDIA GeForce G.One Signature Edition graphics cards put the same GPU technology which made Ra.One in the hands of consumers to power their personal entertainment hub, the PC," who plays a gamer in the upcoming movie, Ra.One.

Gamers also managed to get a peek at the NVIDIA 3D Vision 2 glasses, with several units placed around the arena for people to check out. The 3D Vision 2 glasses claim to feature lenses that are 20 per cent larger than those in the first generation, thus resulting in improved light blocking and an a wider viewing angle. The glasses were put to test and left many a gamer mighty impressed.

ORANGE ESPORTS

Orange Esports, who flew in from Malaysia, expressed surprise at the response the event gathered, saying they didn't expect to see so many people at the event. They also praised the organisation and the gear provided at the event, saying NVIDIA GeForce LAN 2011 was the best tournament/event they'd ever been to. When asked about their chances at the tournament, the team seemed quietly confident, something that was justified when they later managed to win.

GeForce LAN Mumbai was an expansion to the US event - GeForce LAN 6 - which was held aboard the USS Hornet the aircraft carrier and showcased the upcoming shooter, Battlefield 3. Gamers got the chance to spend some time aboard the USS Hornet and even sleep in the barracks. Now that is something we could get behind, so it would be rather cool if something like that happened in India.

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"I got 99 problems" says Kanye West in the trailer of Battlefield 3, which led gamers – especially us Indians – to reflect on how we have our own share of problems in this country, and here are a few.

Expensive!

Everyone needs hardware to game on, and even that very first hurdle turns into a stumbling block in our country as decent hardware is priced quite high and out of reach for most people. This initial expenditure alone throws a lot of potential gamers off, as not many can afford it.

Sorry no repairs

Even when you do fork out the cash for a console, you're heavily

We, the unfortunate

Our land isn't the best of environments for gamers to thrive in, be it casual or hardcore. We looked to our team – and also our community – for inputs and the result is this list of 10 reasons why being a gamer sucks in India.

dependent on your warranty because there aren't any official service centres that repair consoles here. If something goes wrong with your unit – and if you're lucky it will be within the warranty period – you get a replacement free of cost, but what happens after your warranty period expires? Xbox 360 owners have to go out and buy another console, and Sony offers a pretty hefty discount for those who trade in their dead, out of warranty consoles for a new one. That's all well and good, but it's still yet another expenditure on top of the initial investment.

How much???

Once you've got your hardware in place, there comes the recurring expense known as game purchases. For most people ₹2,500 for a game is way over what they're willing to pay and for some even the ₹999 for PC games is too much. The reason being game prices are directly translated without taking purchasing power parity into account. The value of the $60 dollars an American spends on buying a copy of his favourite game might not be as high for him as it is for an Indian who pays ₹2,499 for his. This pricing strategy, unfortunately pushes many people onto the path of piracy, though we don't condone pirates' actions in the least.

A way to combat this might be to get games packaged in India, which will lower the customs duty laid on the currently packaged software, like it has for PC and PS2 games, something we'll get to later.

Overpriced oldies

An extension of the previous reason, prices for old games don't fall frequently enough here. If you were living in a first-world country and weren't interested in paying full-price for a game, you could wait for a while and the prices would start dropping, at which point you could pick it up.

That doesn't happen here unfortunately, for example, Bayonetta, which released in January 2010, is still selling here at full release price. In comparison, shopto.co.uk has a 70% discount on the same game.

This is just one of many old games that keep rotting in shelves because prices don't go down for them unless they're inducted into some kind of Classics or Platinum catalogue.

What's that?

Even when prices do go down for games, the staff at retail stores that sell those games don't bother keeping up to date with the prices and thus try to sell them off at the original prices.

Things would go a long way if the personnel at these places did some research, or kept themselves up to track with what was going on in the gaming world.

Sorry, not available

The perfect counter to the aforementioned problem would be specialised gaming retail outlets, a la Gamestop. There are a few around, like Game4U, Games – The Shop and Intencity, but they are extremely limited in number. It is our belief that people would be a lot more receptive to buying games if they knew they could go to a place where the catalogue and staff would be well updated and informed.

Gotcha... muhahahahaha

With all these problems plaguing retail, most gamers go online looking for a solution. There are quite a few web sites that sell games and ship them to customers, often offering a decent discount too. That has changed recently though, because a certain game distributor has issued a blanket ban on online retailers offering discounts on new games in a move that reeks of preferential treatment to its own retail arm.

WHY BEING AN INDIAN GAMER ROCKS

Most aspects of being an Indian gamer do suck, but it's not all doom and gloom. We have access to most consoles and PC components, and most games release here on time, something unthinkable a few years ago. It might not be as good as it is in the US or UK, but we're pretty well off when compared to most of the world.

While this may sound contradictory to something we said earlier, the fact that most games have subsidised prices for India can't be a bad thing. Sure, there are a few rotten apple publishers who don't subsidise, the subsidies on the whole aren't quite enough and games are still expensive, but we'd rather have the subsidies than not. Don't you agree?

PC games though, are a completely different matter altogether. Indian prices for PC games are ridiculously low when compared to most other places, especially the US and UK. Look at the difference between a game's price on Steam, for example, and how much it costs to buy a retail disc here – it will make for one gamer who's happy to be Indian.

Spoilt brats

All of the above problems might seem a bit first-world to our brethren residing in non-metro locations, because gaming penetration, be it hardware or software, is pretty awful in that regard. There are hardly any places that stock legit games, and even if they do, the catalogue is not usually up-to-date.

So slooooooooow

Let's face it, broadband in India sucks. The speeds are terrible, the plans are terrible and worst of all for gamers, the pings are terrible. If someone wants to go online for some multiplayer action, they're hit with copious amounts of lag. Dedicated servers for most games are conspicuous in their absence, which means we're forced to look at Singapore or other South-East Asian servers, which are not really the best of experiences thanks to the awful pings. Like one of the TDF members said, it would be nice if we could play online without having to worry about getting kicked from servers due to high pings.

Tch, tch...

By far the biggest problem though is the social outlook on gaming. In India, gaming is still considered a kid's activity, and most of us adult gamers are looked at like we're some strange extra-terrestrial specimen. Spending money on games is ridiculed, and our families balk at the amounts we spend to buy gaming consoles and the like.

Some gamers are guilty of this, too. They don't look past the Grand Theft Autos (Hot Coffee enabled, of course) or the Need for Speeds to see the massive library of entertainment that those games are but a tiny, tiny section of.

Digital life

52 **Online Stores**
An in depth look at digital game
download services

Jabra sports headphones
Jabra announced its range brand new, sporty,
stereo bluetooth earphones.

Jarre
AeroDream One

Who says iPod docks need to be compact? Well, not Jean Michel Jarre, for sure. The Jarre AeroDream One may seem like a gimmick, but it will actually sell you one if you can afford it. With 10,000 rms power, mostly delivered by an 18-inch sub, it's no wonder this thing stands over 11 foot tall! Heck, it even comes with its own ladder bolted on. Also, it weighs in at a mere 400 kilos, so obviously the family can bond over carrying the iPod dock to the upstairs bedroom. Of course, we assume that you live in a mansion with 20-foot ceilings, have a family of at least eight people and have an upstairs bedroom, because it costs a little over half a million USD!

Things that make you go...
Whaaaat?

Nik Nowak's
Panzer Soundtank

The ultimate in battle gear for roving DJs, Nowak's tank can actually be driven, has DJ equipment attached and delivers a massive punch with about a 4,000W rms output. Now that's an earache and a half!

Lamborghini
Aventador LP 700-4

Engineer Robert Gülpen is selling his hand-crafted Lamborghini Aventador LP 700-4, for a mere $4.7 million. Hang on, before you rush off to buy it, it's just a 1:8 scale model of the supercar, built from solid gold, platinum and 2,000 precious stones, so you're not going to be driving it about anywhere. Of course, you could not buy this and get 12 real Aventadors instead... For those with just under ₹24 crore to blow, go to www.guelpen.com

Hasselblad
H4D-200MS

This is a 200MP camera from the famous Hasselblad stables. It's sort of like three cameras rolled into one – it can capture single shots at a whopping 50mp of still subjects and stitch together six shots of very still subjects to give you the magical 200MP resolution. Of course, when you pay $45,000(₹2,263,508) for a camera, you don't need to move about, as the camera has piezoelectric motors to move the sensor and take the 200MP stitched shots for you...

TOTO
Toilet Bike Neo

No. Contrary to what you may have read about this bike already, the Neo does NOT run on human waste. It needs gas like every other vehicle. Of course, you could set up a waste disposal system at home and produce the gas to run this bike... We'd just love to get an opportunity to ride this bike in to work, and blame the Editor for being so strict about deadlines that we *really* have to drop everything and rush to work! What next? Sit back, relax, and of course, remember to flush.

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I t just seems silly, in this day and
age, for games to still be sold in
tiny breakable plastic discs. Let's
say you're sold on the idea of
buying digital games online. What next?
We take a look at Steam, Gam-
ersGate, Good Old Games, Impulse,
Beamdog and Green Man Gaming,
helping you get your gaming high online.

Steam
Created by Valve, and used in all Valve
games since *Half-Life 2*, Steam is pos-
sibly the most popular, influential and
well stocked of all digital game distri-
bution services. Steam is more than
just that, it's also a DRM platform.

Steam links your games to your
account, allowing you to download and
play them from any computer that has
Steam installed, as long you log into
your Steam account. In addition, there
are community features such as achieve-
ments, game and game-item trading,
leaderboards, chatting etc. Steam offers
games for both Mac OS X and Windows,
and with SteamPlay, you can purchase
once and play on both platforms.
Steam has the widest collection of
games and routinely has sales that often
have games at very low prices, at times
lower than what it would cost to pirate.
Pros:
- Widest collection, for both Mac and Windows
- Frequent sales; daily deals
- Community features
- Games can be played directly after down-
  load, no set-up required
- Also has Free To Play games

Cons:
- Requires the client to play a game

ONLINE GAME DOWNLOAD SERVICES & STORES

- Steam doesn't let you play a game if a
  newer patched version is available
- Have to install everything under the
  Steam folder

GamersGate
Started by Paradox Interactive, a
Swedish game development company.
It has a huge game collection, rivalled
only by Steam.
GamersGate provides you with an
individual downloader for each game
that downloads and installs the game.
It enforces no DRM on its own, how-
ever, you need to log into the down-
loader before you can use it.
GamersGate has an interesting system
called "Blue Coins" which rewards people
for participating in the community (posting
reviews, walkthroughs, guides etc.) and
for purchasing games. These Blue Coins
can also be purchased directly or gifted
and can in turn be used to purchase more
games. GamersGate allows you to pur-
chase multiple copies of a game which can
then be gifted. Like Steam, GamersGate
includes games for both Windows and Mac
OS X operating systems. Often purchasing
a game means you get access to both ver-
sions, but not necessarily.

Pros:
- No enforced client
- Frequent sales
- Rewards for purchases, reviews etc.
- Large collection of games
- Games for Windows and Mac OS X

- Includes one free game for all
Cons:
- Forced downloader; no direct downloads

Impulse
Impulse is an online game and software
store started by Stardock. It was recently
purchased by GameStop.
It offers prices in INR, which are
merely a conversion from their USD
prices. The pricing itself is not sensi-
tive to the Indian market. It has a
decent collection of games, but only
few are available to Indian customers.

Impulse doesn't offer as many com-
munity features as Steam, but then
again, it isn't as intrusive either. Games
downloaded from Impulse run without
Internet. Though, games may include
their own DRM which could make an
Internet connection necessary.

Pros:
- Prices in INR
- Don't need the client running to play
  games
- Daily deals, and regular sales
Cons:
- Many games are not available for India
- Need a client to download the games

Desura
Desura is a game distribution service
that is quite focused on the com-
munity aspects of gaming. It's more
inclusive than Steam in some aspects
like game development, modding and
players community. It has a strong
focus on modding.
The Desura client can even manage
games that you download and install from
other sources. You can download and
install mods directly from its client. It
offers and supports mods for third party
games such as *Half-Life*.
It even offers numerous free and
open-source games and in general the

A full circle
Microsoft likely to unveil the next
Xbox, the Xbox 720 at E3 2012
http://goo.gl/w3iUh

There and back again
A game accompanying Peter Jackson's *Hobbit,
An Unexpected Journey* is expected to be
released next year

Feature

platform is Indie-friendly. It lets developers directly engage with their audience, for example, the Alphafunding feature allows one to purchase games while

they're still in development, which will allow for some much needed development funds for the creators.

Desura gives out games for Windows, Mac OS X and Linux. A Windows client and Beta version of the Linux client is already available, and eventually will expand to Mac OS X. You only need to purchase a game once to play it on all supported platforms. Like Impulse, it lists prices converted to INR.

The Outsiders

There are a few options we have left out here, and we should mention why.
Origin: As EA's official store, it doesn't have games from other publishers, and hence was not listed. Origin does have Indian pricing in its store if you access from India, which can make a huge difference. For example, the upcoming *Mass Effect 3* is available for ₹999 instead of the international price of $59 (~₹3,000 currently). Some EA games may be exclusive to Origin soon. Origin also only guarantees that games you buy will be available to download up to a year from purchase.
Amazon: Amazon offers digital game downloads, but not for India. Case closed.
Direct2Drive: A glaring omission you might feel, but the fact is that this game store has severely restricted the number of games available in India. Only 10 per cent of its games are available in India.
OnLive: OnLive is a cloud-gaming platform. You don't download games, you essentially stream them off the net. You're simply watching a video of the game playing on a server and your inputs are going to its server to control the game. We haven't included it since the 4-16 mbps it needs is still rare in India, and it isn't a traditional store.

Pros:
- Store for Windows and Linux games rolled into one
- Mac OS X support incoming
- Very good mod support
- Good community features
- Support for modding games not

installed from Desura store
- Many games and mods available for free, which is great
- Early access to games in development via Alphafunding

Cons:
- Game client required

Digital life

Altair on the Silverscreen
Sony Pictures in talks with Ubisoft to bring
Assassins Creed to the big screens

Glow in the Dark PS3
Wireless controllers manufactured by
PDP with exciting features

Good Old Games

Good Old Games (GOG) is not only a digital game store, but also a stand against DRM. The company behind GOG is none other than CD Projekt, the creators of the popular *The Witcher* game series.

All games in its store are offered without any DRM, and don't need any client to run. The games are simple set-up files that can be installed on any Windows computer. A downloader for games is available, but optional.

GOG offers hundreds of mostly old games, some as old as 1986 (*King's Quest*) while others as recent as this year, 2011 (*The Witcher II: The Assassins of Kings*). If you're looking for classic PC games, then in many cases this is the only source.

It does more than offer the games though. Firstly GOG goes out of its way to ensure that games work on latest versions of Windows – in the case of some very old games, this means using emulators such as DOSBox or ScummVM.

Secondly, it usually bundles extra content with each game, such as additional maps, manuals, soundtracks, avatars, artwork, guides, etc. This content is unique to GOG.

Games are offered at only two prices, ₹299 and ₹499. In some case entire game collections are available at these price points.

Pros:
- All games are DRM free
- No client to download/play games
- Most games have bundled freebies
- Some games are game collections
- Cheap games; some free games

Cons:
- Limited to mostly old games

Green Man Gaming

This service is unique in that it tries to bring one of the most lucrative aspects of boxed game copies, trading copies, to the digital world. Games you purchase on the service can be played as normal, and then traded back in exchange for credit to buy another game.

Because of this, Green Man Gaming often has the lowest rates of any game distribution web site even for com-

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Offline vs Online

Online Stores
- You can buy games in a few clicks, and start downloading instantly
- Games are HUGE, downloading that much will take loads of time and need good bandwidth
- Online games tend to be at international prices
- No storage required for a game box, better on the environment (no plastic disc, no cardboard box)
- Games in stores are often much cheaper
- Most stores will let you re-download your game as many times as you want indefinitely
- Online stores often have sales that are known to go even in the "90% off" area

Offline Stores
- Offline sales are less common, and usually very limited in discount
- No download required
- You can need to go to a store to get the game (there are online stores that sell boxed games as well)
- Game boxes are a nice souvenir (I stay mostly at home, what's this environment thing?)
- Unless the game's tied with an online store, if you break the disc, your game is lost

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pletely new or even unreleased games. The trade-in prices can fluctuate based on demand and supply, so you can even make money by buying, playing and then selling a game.

Due to the unique nature of this game store, it needs you to install a client to download and play games. Its DRM ensures that you can play a game when you buy it, but not once you've traded it back. Not all games are tradable though, be careful before you buy!

Considering the already cheap game prices, and the fact that games once played can be returned, this is often the cheapest route to playing a game.

Pros:
- Games can be traded back, thus saving great deals of money
- Game prices are usually lower than those of competing stores
- Constant sales and promotions

Cons:
- Purchase and trade-in prices are fickle
- Client necessary to download and play.

BeamDog

BeamDog is a digital game distribution platform recently launched by one of BioWare's co-founders and an ex-Bioware lead developer, aiming to simplify game download and play experience.

To this end, BeamDog, like Steam, downloads your game in a ready-to-play form, so you can jump right in after the download is done. You need the game client to download and launch the games, however DRM is not enforced. In fact BeamDog offers numerous free and even Open Source games such as *LinCity*, *Battle for Wesnoth*, *FreeCiv*, *Hedgewars* etc.

The way BeamDog works is very similar to Steam, but the client doesn't include extraneous social features and is just focused on buying, downloading and playing. The BeamDog web site however offers some amount of social features by allowing you to have a profile and follow others.

BeamDog has hundreds of games, but its catalogue is quite small. Considering how new this service is – it just launched in July 2010 – this isn't very surprising.

Pros:
- No mandatory DRM
- Selection of good free games
- Clean focused client software
- Games play directly after install
- Games can be installed on whatever drive you want to install it to

Cons:
- Small selection of games
- Client necessary to download games

Digital life

Nintendo DS handheld
Sales of the Nintendo DS handheld have
surpassed 50 million units in the US

PS3 will support 4k
Sony has announced the PS3 will get a firmware update
around the beginning of 2012 which will support 4k stills

Online game purchase stores

There are many good reasons to buy boxed versions of a game — cheaper prices, no need to download huge amounts of data, and if you're into that, pretty little boxes to litter your shelves. But you sir, didn't buy that expensive gaming mouse just so you'd have to part its company for hours while you head to a store to buy your games. For you we present a few online shopping options for boxed games, where you can order games online and have them delivered to your house in a neat little package.

Flipkart.com
We're pretty sure you've all heard of this one, and although it's more popular for books, Flipkart does offer a decent collection of games for the PC and consoles. It has thousands of games across PC, PS2, PS3, Xbox-360, PSP, Wii, DS and 3DS. In addition it also sells consoles, console accessories and PC gaming accessories. Since the site already has a good customer base, you're likely to find reviews and ratings for many games.

The site is well designed and easy to browse based on game genre, price, availability, and format (whether it's for PC or console). Each game has screenshots (often of poor quality), links to the same game on other platforms, summary from the box, videos etc. Most games are available at a discount all the time.

If you've used Flipkart before, you're set! You can use your Flipkart account to buy games or even shop without an account. Creating an account simplifies the checkout procedure and allows you to maintain a wishlist on its site, which can be kept private or made public to share with friends.

Game4u.com
As the name of this store suggests, it's more tuned towards the needs of a gamer. Like Flipkart it offers both games and gaming equipment. Unfor-
tunately the selection of PC hardware is quite limited as it seems to have a tie-up with Razer and mostly only offer PC gaming equipment by them. It also seems to have a tie-up with EA although in this case it mostly means that it's a participating retailer in EA's contests.

Game4u offers games for numerous platforms – PC, PS2, PS3, PSP, Wii, Xbox 360, and DS. Its collection seems to be rather limited compared to Flipkart, however considering the number of 'out of stock' and otherwise unavailable products Flipkart lists, there might not be too much of a difference. One additional feature of Game4u is that it also sells and buys pre-owned games. If you don't play a console game anymore, you can trade it at the store for store credit, or you can purchase pre-owned games at a huge discounts.

Game4u occasionally has contests and numerous products have "deals" or discounts active at any given time. Like Flipkart, it too allows you to create an account for frequent purchases, or simply buy as a guest user.

Game4u has physical store locations as well – we thought it's worth a mention.

Intencity.in
Intencity is another online store that is caters exclusively to gamers – well, almost exclusively, it has thrown in packages to Megaupload and Hotfile file-sharing services.

Here is another online retailer with a large pre-owned games collection for both Xbox 360 and PS3. It has games for PC, PS2, PS3, Xbox 360, PSP, Wii and DS. It seems to have a large collection, but not all listed games are in stock.

Unlike the above mentioned stores, Intencity makes it necessary to open an account in order to make purchases. The account lets you mark products as favourite, and you can even set price alerts for products – i.e. you get a mail if
their price drops. It even has a QuickOrder feature that lets you enter the name of the game directly rather than having to browse or search the store.

Unfortunately, while it lists a large number of games the availability of these games is quite poor. A large number of games are actually out of stock. It treats orders of out-of-stock games as pre-orders, where the game will ship when the game is available again, however it doesn't inspire much confidence. Also, it adds a service charge for paying via card. It really don't seem to be offering much of an advantage in anything except pre-owned games.

Nextworld.in
NextWorld offers many products other than games, but one look at the front page shows how gamer-centric the site is. The home page of the site is filled with information about featured games and gaming products, games for pre-order, which makes it hard to think this is anything but a gaming site – however it does offer numerous computer hardware and software products, media players and whatnots.

Nextworld has games for PC, PS2, PS3, Xbox 360, Wii, PSP, and surprisingly, also for the PS1. Nextworld is no different in that it has many games often available on discount.

Like Intencity, you need an account to purchase items. Apart from keeping your shipping address conveniently stored in your account, it also allows you to create lists of games, and more importantly create a watchlist that will inform you of price and availability changes. Best of all, it has a reward points system like GamersGate that gives you a certain amount back when you buy something from the site or post a review. As a welcome package, nextworld.in offers you 25 'reward points' which translates to ₹25 off on your first purchase – if you choose to of course. **d**
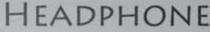
Sci-Tech

60 **How Stuff Works**
Understand Bulldozer, AMD's latest
processor architecture

Astrosat to launch in 2012
India's first space-dedicated astronomy satellite has
been rescheduled to launch in 2012
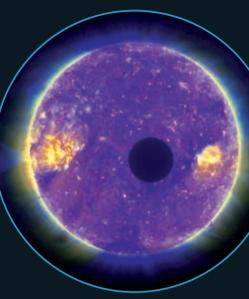
Look! A planet

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Little do we know about the vast expanse above us. Each time we look above, it's an entirely new scenario. Some elements, like the constellations, remain the same, however light of heavenly bodies from parsecs away continue to reach us as we go about our lives. It brings with it the history of the planet. How it formed and what changes have taken place on its surface are all contained in this cosmic beam of light. Here's how we go about interpreting this data to detect new planets in the universe.

Methods to find new planets

Till the late 90's, astronomers weren't confident about the existence of extra-solar planets, i.e. planets outside our solar system. Multiple theories existed but no distinct method was devised to find them. Now, we're coming across new planets on a daily basis using the following methods.

Wobbling stars

When a planet orbits a star, there's mutual gravitational attraction. This gravity tugs the star in the plane of the planet's orbit. This attributes to a slight wobble for the star. With each subsequent planet orbiting the body, the wobble becomes much more complex. By studying this wobbling of a star, astronomers figure out the number of planets orbiting the star. How we figure out whether a star is wobbling or not is by observing the planet's red/blue shifting.

Eclipses

An eclipse as we all know happens when three or more planets line up and light from one body is blocked by another. We have solar and lunar eclipses happening every year. In 2011, we have four partial solar and two total lunar eclipses happening. Watch out for the solar eclipse on the 25th of this month and a lunar eclipse on 10th of December. Similarly, extrasolar planets also eclipse their stars. When we observe these distant stars, there's a slight reduction of the star's brightness when its planet passes between the star and earth. This tells us that a planet is indeed orbiting the star and the time period between subsequent eclipses gives the time that planet takes to circle its star, which gives us an idea about the planet's proximity with the star.

Looking straight at it
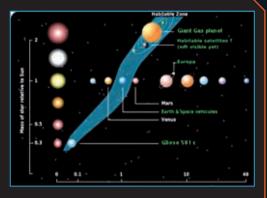
One of the simple sounding but much difficult methods is to peek straight at the region where a planet is suspected to be. Light comes in a very wide spectrum and when observed in the visible range, the star's brightness will be much more than the planet's. This will practically blind the telescope and the planet won't be seen. However, when the infrared region of the light spectrum is observed, the relative brightness of the planet increases as it emits its own infrared light as well. Thus, letting us know of its presence.

Polarimeters

Prior to being reflected off an object, light is non-polarised and when it bounces off a planet it becomes polarised. We have pola-

Goldilocks zone

Our planet is the only one in the solar system to support life. Though there are multiple parameters which need to be fulfilled in order for this to happen, one particular parameter is the distance of the planet from the sun. Any planet that is too close to the sun like Mercury or Venus is too hot to sustain life whereas planets far from the star like Saturn and Neptune are too cold to sustain life. According to the size of the star, this narrow band called the Goldilocks zone has been proven favourable enough to sustain life. Earlier, even Earth wasn't in the Goldilocks zone but after finding life in the most unfavourable places on the surface, astronomers have widened this band. In our solar system, Earth and Mars are the only two planets that are can of sustaining life. So when we detect a new planet, one of the first things we do is check whether the new planet falls within the Goldilocks zone for that particular star.

JWST launch in 2012
Hubble and Spitzer's official successor, the James Webb Space Telescope will launch in 2018, seven years behind schedule

ISRO needs more launch sites
With more and more launches slated for ISRO, the agency has started looking for more launch sites

Space Age

A star pirouetting about the green circle due to a planet being present in orbit

rimeters which are capable of differentiating polarised beams of light. However, such instruments require as little visual aberration as possible and are used on space telescopes, not terrestrial ones.

Interferometers

Interferometry is the process of combining the light from two telescopes to get a much better picture. So multiple small telescopes can be used to collect data which can be merged to produce data that would otherwise require a really huge telescope. A trick that astronomers use with this method is called "Null Interferometry". Light travels in waves and when two waves are brought together by aligning the "troughs" together, the signal is boosted to give a much better picture. Aligning the trough of the wave to the peak of the waves will cancel that particular source of light. Thus, the star's light is nullified to view the planets better.
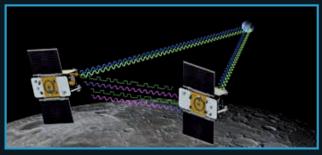
Colour of a planet

A more recent technique discovered by astronomers has helped figure out the colour of light reflected off from a planet's surface. When a planet orbits a star, it moves away from us for one-half of its revolution and moves closer to us during the other. The light observed from the planet is either red/blue shifted according to the movement of the planet. By continuing this shifting, astronomers were able to determine the light spectrum reflected by the planet by honing onto it. This not only confirmed the existence of the planet but also gave them information about it.

Conclusion

In a young galaxy as ours there's much to be discovered and studied, after all resources are limited and the only way to sustain our growth would be to venture into the cosmos, expanding our horizons. Learning more about the cosmos is our first step in this direction. **d**
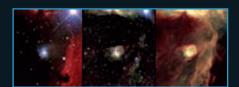
Satellites GRAIL-A and GRAIL-B studying the Moon's gravitational field

GRAIL

Gravity Recovery And Interior Laboratory is part of NASA's Discovery Space program which launched two probes recently (these will orbit the moon and study its gravitational field). When a planet cools down, the dense materials move towards the centre of the planet. There's a constant change in the gravitational field when this happens. Studying this will help expand our understanding of the evolution of the moon and the knowledge gained will be applied to further our understanding of planet formation as well.

Red shift

Redshift is a phenomenon in which light from a body is increased in wavelength. This happens when an object from which the light is being emitted is in motion. It's like the doppler effect which can be experienced when a sound emitting object goes past you. The sound you hear prior to the object passing you is of a higher frequency than the sound you hear once the object goes past you. This is because there's compression of the sound waves in the direction towards which the object is moving while expansion occurs right behind it. The same is applicable to light which also travels as waves. The compression results in the light entering the blue spectrum, this is termed as "blueshift", whereas expansion results in "redshifting". So by measuring the redshift of an object we can learn much about the planet's motion.

Normal, near-infrared and mid-infrared images of a Nebula viewed from the Hubble Space Telescope. Observe as certain elements are only visible when viewed from a particular infrared range.

Sci-Tech

Bluetooth for cyclists
Free2move has designed a bluetooth communications
system for cyclists to enable easy communication

Charges for 3D glasses
Sony has decided to charge $5-$10 for 3D glasses
for each blockbuster from May next year

Bulldozer:

Understanding AMD's latest processor architecture

Mithun Mohandas
readersletters@thinkdigit.com

All of AMD's processor archi-tectures since AMD K7 have been pretty much the same. They were mostly revisions on the K7 architecture with minor modifi-cations with each successive iteration. With Bulldozer, AMD designed a new architecture from scratch to incorporate a multitude of changes which it believes will help AMD regain some of the market share which it lost ever since Intel launched the Core 2 architecture in 2006.

Understanding the new Architecture
On the outside

The Bulldozer processor looks pretty much like the Phenom/Deneb processor which used the AM3 941-pin socket. How-ever, Bulldozer processors use 942 pins. This puts to rest rumours that AM3+ CPUs could be used with AM3 motherboards after getting a BIOS update. Unless you destroy one of the pins on your newly purchased processor, this is impossible. Motherboard manufacturers, however, have released new motherboards using older generation chipsets with the AM3+ socket. You can use Bulldozer CPUs on these motherboards after a BIOS update. A word of caution, AMD does not

support using Bulldozer processors on older chipsets.

Bulldozer has only one die with mod-ules being locked permanently on models with less number of cores. So, a 4 core/2 module, a 6 core/3 module and the flag-ship 8 core/4 module Bulldozer are all the same die with certain cores being locked. Don't get your hopes up about getting a motherboard that can 'unlock' cores for your Bulldozer, AMD has ensured that none of the disabled cores will be usable.

The flagship processor, FX-8150 will come with liquid cooling from Asetek Solutions, it is also the OEM for Antec and Corsair's liquid coolers.

On the Inside

With the bulldozer architecture AMD has shifted from the multi-core approach to the module approach. The difference being that a module is AMD's answer to Intel's Hyper-Threading. After a lot of R&D, AMD came to the conclusion that desktop processors have to perform (FP) floating point calculations more as compared to integer calculations. So, instead of having two FP pipelines and 2 integer pipelines which would indicate two cores completely, bulldozer shares the Integer pipeline between two cores. Hence, each module contains 2 FP pipelines and 1 Integer pipeline, simulating two cores.

Bulldozer adds support for 3 new instruc-tion sets; FMA4, CVT16 and XOP, all of which are useful for arithmetic calculations. It also supports Intel's AVX instruction set.

Finally, one can have 32 GB of RAM on their system, though there are very few who would need that kind of memory. Not to mention native support for 1866 MHz FSB. Though we are not sure, why AMD didn't opt for four channels of memory in the desktop processors which they have included in the Interlagos processors which are for servers.

The 990 FX Chipset

All FX models require the new AM3+ socket motherboards which come with the new 900-series chipsets.

The 900-series chipsets are also backwards compatible, so one can use the new AM3+ motherboards with older AM3 processors, if required. The only difference between, the chipsets is the number of PCIE 2.0 lanes each sup-ports. Moreover, SLI support is back with this chipset series which was absent since nForce 980a. RAID sup-port remains the same with all chipsets supporting RAID 1, 0, 10. RAID 5 is supported on the 990FX chipset. There is support for native SATA 6 on these chipsets as well. The increased PCIE 2.0 bandwidth is something that AMD boards enjoy whereas Intel boards require the NF200 chip to match up in terms of bandwidth.

Courting controversies

Quite often new launches are mired in some controversy or the other and AMD was no stranger to this trend. First in line would be the launch dates. AMD never announced the dates but 'industry sources' first pegged the launch date to be June 2011. As June approached, the motherboard manufacturers released the respective 900-series motherboards, which in accordance to other processor

launches, is usually two-three weeks prior to the processor launch. Hence, it came as a surprise when the launch was postponed till late August-early September. When the launch date neared again AMD announced another delay citing issues with the frequency not matching up to earlier projections. This time a new processor revision, B2 was to be launched. At the time of writing, AMD has already started working on revision B3. All companies do the same and AMD is no different, the announcement of the new revision so close to the launch had created a lot of flutter on the Internet. Finally, AMD launched the processors on October 12 though they are yet to launch the processor in India.

Then there was the news of AMD quitting BAPCo, a consortium that develops SYSMark. People were quick to claim a defect in AMD's product line. However, few noticed that along with AMD, NVIDIA and VIA also quit BAPCo over SYSMark 2012. With an NDA (Non Disclosure Agreement) in place, we'll never know the actual reason for the move but to claim a defect in AMD/NVIDIA/VIA's product range because of this development is baseless. AMD did recently cancel it's Komodo processor which was lined up for a 2012 release, it'll now be replaced by the Vishera platform which will incorporate a modified Piledriver (Bulldozer's successor) core.

Benchmarks, benchmarks everywhere...
Ever since an engineering sample of Bulldozer slipped onto eBay.com earlier this year we've been seeing quite a lot of benchmarks on the Internet. Most of those have been refuted as fake benchmarks. AMD mentioned that the Windows 7 scheduler doesn't distribute the jobs properly. For lightly threaded applications, this is pain as jobs are assigned to modules which can otherwise be parked(powered down). Therefore, if a job only requires a few threads, a better Operating System Scheduler will assign the job to less number of cores, thereby allowing the other cores to power down. Core parking was introduced in Phenom II and wasn't much of a success. A few benchmarks on Windows 8 developer preview have shown promise, an improvement of 10% was noted in Left 4 Dead 2, whereas the other applications tested only showed 2-4% improvement. Since the benchmarks were carried out on the developer preview, they are not indicative of the final product. So whether performance will increase by quite a bit or will it down the drain, only time will tell.

Another key thing to note is that Intel settled with FTC last year over an Anti-Trust lawsuit in which one of the complaints was that certain compilers would check the CPUID of the processor prior to executing the code. This allowed for the most optimum code to be executed

on Intel processors, but if the processor was anything other than an Intel, then the sub-optimal code would be executed. This has been widely reported and denied by Intel as well, yet it's not considered while benchmarking AMD products.

Of all benchmarks we have seen, Bulldozer seems to fit in snugly between Phenom II and Intel's Core i5 2500K. It has been priced aggressively as AMD always does but there isn't any significant improvement. Also, power consumption has increased dramatically which is to be expected from new architectures. Further refinements will reduce power consumption and produce much efficient processors. 4 processors have been launched this year, and 5 more will be launched next year, amongst them is the FX-8170 whose base frequency is 3.9GHz and scales upto 4.5GHz on turbo.

Final word
There has been a remarkable change in the architecture of the processor. AMD has been known to come up with innovations even though Intel's R&D budget exceeds AMD's entire revenue. The numerous changes in architecture will slowly be adapted into various compilers to make full use of it's unique design and we will probably see a huge improvement from Piledriver on Windows 8. We will be testing the processor and you can read about our take on its performance and the benchmarks in the next issue. **d**

Buying Game Consoles

Agent 001
agent001@thinkdigit.com

It's been a while since I've been pondering whether to get a console. With all three prominent game consoles available in the country, how do you decide which one to buy? I'm not a dogged PC gamer, willing to invest tens of thousands of rupees every other year to keep my rig relevant with upcoming games. So opting for a game console will probably simplify many things and negate the need for timely upgrade cycles. After a browsing session on the Internet, this is what I gathered.

Nintendo Wii

Casual gamers who aren't head over heels into serious gaming should consider Nintendo Wii. Before Microsoft's Xbox 360 Kinect, it was Nintendo Wii which brought controller-free motion-sensing games to the market.

It may not have the best game libraries to tout, nor the best graphics among all consoles available today, nor a mention-worthy online gameplay experience but nothing beats the Nintendo Wii and its collection of party and arcade titles. The Wii remote was revolutionary when launched and can still handle a lot. This platform has also successfully tapped into the fitness games genre. Overall, the Wii recaptures a lost era of gaming when games were simple and fun to play and with the additional motion-sensing element it enlarges the canvas for a small group of casual gamers.
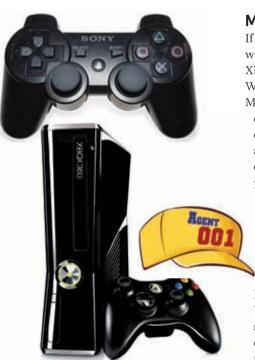
The Nintendo Wii remains the most inexpensive of the three game consoles sold in India. So if you need a family entertainment device for casual gaming, the Nintendo Wii is a good fit for just over ₹12k (may be even cheaper).

Sony PlayStation 3

The PlayStation 3 (PS3) is now five years old but still remains relevant. Unlike the Nintendo Wii, it's more than just a game console — it's an HD media player. It has a Blu-ray drive and supports stereoscopic 3D gaming. Compared to the Wii and Xbox 360, it boasts of superior internal hardware – the consoles were used to build supercomputers a couple of years ago.

With so much firepower in its belly, the PS3 is undoubtedly one for enthusiast gamers who want to play the latest games, engage in online multiplayer sessions, and have access to movies, rent TV shows and download game add-ons. The PS3 also has a host of exclusive game series restricted to its platform, popular among which are *Resistance, God of War, Killzone, Uncharted, inFamous* and *Gran Turismo*. These are not only some of the most popular games on the PS3 but in the gaming fraternity as a whole.

In answer to the Nintendo Wii, PS3 released the Move, its very own motion controller back in September 2010. Playing with the Wii remote and Move is nearly the same, with PS3's superior graphics and precision game control offering slightly better overall user experience for motion-controlled games. Also, the number of gaming titles requiring the Move bundle to tailor a unique gaming experience continue to grow.

The PS3 Slim 160GB recently slashed its prices down to ₹16,990.

Microsoft Xbox 360

If you were to ask me that one overwhelming reason why one should buy an Xbox 360 over the Sony PS3 or Nintendo Wii, it would have to be this – Xbox Live. Microsoft's unbeatable online gaming experience paired with a whole host of entertainment content makes Xbox Live a comprehensive online entertainment destination. It does demand a yearly premium of $50 (about ₹2,400) but its 20 million plus annual subscribers don't seem to mind the service they get – games, betas, movies, TV shows and more. And Xbox Live has a thriving community of online gamers.

In terms of user interface, the Xbox 360 is in between the Nintendo Wii (simplest) and Sony PS3 (extensive). It probably enjoys the most extensive game library among all three consoles, and like the PS3 gives a steady number of game "exclusives" like *Halo, Gears of War, Forza* and *Fable*.

In terms of motion controllers, the Xbox 360 has done one better than Wii and PS3. With Kinect – Xbox 360's exclusive motion controller – you don't need to hold a wand to control a game, the controller scans your body movement to interpret it as actions. It adds a host of casual, fitness games to the Xbox 360's library.

All things considered, I still wonder which one to buy for myself. I could go with any of the above mentioned consoles. Write in to give me your views on which console you'd go for and the reason why.

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Consumer Protection
What do you do when your product runs out of warranty?

Tango now for PC
Tango the popular video-calling application for Android phones is now available for PCs

Agent 001

Digital camera for ₹9,000

I want to buy a digicam with a budget of ₹9k. I have four cameras in mind: Nikon Coolpix S6200, S6150 and Canon IXUS 220 HS and 115 HS.

1. What should I compromise on? Better sensitivity of IXUS series or better zoom of Nikon?
2. Which of them has CMOS sensor?
3. Which of them have larger sensors and better modes to play with?

Also, is the Powershot A3300 IS better than any of them?

I've been a Digit reader since one-and-half year but still don't know much about cameras.

Abhinay Singh

First, identify what you're going to shoot more often and based on that opt for a camera. If you're the kind who likes low-light photography or a lot of indoor photography, then you need a camera with a great ISO range rather than one with zoom. On the other hand, if you're going to do landscape or wildlife photography, then you can go for a higher zoom.

As far as features are concerned, all the cameras you've mentioned have lots of them to play around with. However, the Canon cameras have a slight edge due to higher sensitivity. Both the Canon cameras have a CMOS sensor. The A3300 IS is not as good as the Canon IXUS 220HS.

If you're not looking for zoom then the Canon IXUS 220HS camera makes for a good choice for your intended usage. But if you want zoom then you should go for the Nikon S6200. Do tell us how it goes.

Laptop for work

I want to buy a laptop with a good screen resolution and the best processor available. My budget is ₹40k. My father wants it mainly for business. I've chosen HP Pavilion dv6. Is there a better laptop out there for my specific need?

I'd be glad if you could advise me a laptop tested by your test center. Thanks!

Prateek Sachdeva

Your best bet would be the Acer Aspire 5830TG as it has a better processor and better graphics than the HP Pavilion dv6, and yes we've already tested it few months ago — read the full review here: http://bit.ly/o5QEyF. Plus it's under ₹40,000. If you still want to consider HP then the HP Pavilion g6 makes for a better option overall.

Need urgent help with my PC configuration

I am looking to build a powerful PC with the following configuration. Could you please:
a.) Suggest if there is anything missing in it or any better options available at cheaper price with no negotiation on performance.
b.) How will the performance be like?
c.) Please let me know the missing rates?
d.) What cabinet would you suggest?
e.) I am looking for a Light scribe writer (Blue Ray), which is best available?
f.) Where in Delhi can I get these and at the best rates?
g.) Also what will be the total power load required (is a 800 VA UPS sufficient)?
h.) Is the processor good enough for my usage or do I need to consider AMD for better results?
i.) Please suggest some alternate speakers worth checking out and a good webcam.
- Intel Core i7 2600K & ASUS P8P67 Deluxe
- 16GB Corsair XMS3 1600MHz
- ZOTAC GeForce GTX580
- 1 x OCZ 2.5 SSD VTX3-25SAT3-240G
- 2 x Seagate Barracuda XT 2TB (Primary Slave, Secondary master) & 1 x Seagate Barracuda LP 2TB (Secondary Slave)
- ASUS BD-RW Drive
- 7 x Silverstone White LED Fans 120MM
- Corsair H70 CPU Cooler & Corsair AX1200
- Benq XL2410T LED & 800VA UPS

Vikas Goel

Intel Core i7-2600K is the best processor - performance wise at that price right now, but i would suggest you go for a Z68 chipset based motherboard, as you can use the integrated graphics on your 2600K for transcoding purposes. Check out our comparison test and take your pick.

16GB of RAM is overkill. You can get GSkill 8GB RAM (F3-12800CL9D-8GBXL RAM) for around ₹3,400. The Cooler Master HAF 922 is a good cabinet for around ₹7,300. You can cut down on your fans for the cabinet as the HAF 922 has two 200mm fans (front and top) and one 120mm fan (rear)—fans inside the cabinet.

You dont need to spend so much on speakers, unless you are specifically looking for a 5.1 option. You can check out Logitech Z506 for ₹5,000 (5.1 channel sound) or Altec Lansing VS4641 for ₹3,000 (2.1 channel surround sound).

As for UPS, you can consider the 1.1 kVA APC UPS for ₹4,500 or a lower end 1 kVA Intex UPS for about ₹2,000.

The rest seem fine.

Street smart

Unix Timeline
An illustrated brief timeline of the
growth of Unix **http://bit.ly/reHMDx**

The tech behind Occupy WallStreet
Take a photo tour of the tech behind the Occupy
WallStreet campaign **http://bit.ly/rqqSyL**

SPEND SMART

Updated prices of top smartphones, laptops, PMPs and desktop speakers from Digit Test Labs

SMARTPHONES

Smartphone	Price (₹)	Operating System	Processor	Camera (MP)	Screen Size	Resolution
Micromax A70	7,542	Android 2.2	600 MHz	5	3.2-inch	320 x 480
Xperia Mini	13,380	Android 2.3	1 GHz	5	3-inch	320 x 480
BlackBerry Curve 9360	19,990	BlackBerry OS7	800 MHz	5	2.44-inch	480 x 360
BlackBerry Bold 9900	32,490	BlackBerry OS7	1.2 GHz	5	2.8-inch	640 x 480
LG Optimus 3D	37,000	Android 2.2	Dual-core 1 GHz	5	4.3-inch	480 x 800
Samsung Wave II	14,210	Bada 1.2	1 GHz	5	3.7-inch	480x800
Samsung Galaxy S II	29,995	Android 2.3.3	Dual-core 1.2 GHz	8	4.3-inch	480 x 800
Samsung Galaxy Ace	14,224	Andoid 2.2	800 MHz	5	3.5-inch	320 x 480
HTC Chacha	15,062	Android 2.3	800 MHz	5	2.6-inch	480 x 320
HTC Sensation	29,764	Android 2.3	Dual-core 1.2 GHz	8	4.3-inch	540 x 960

DESKTOP SPEAKERS

Speakers	Price	Output	Frequency response	Input	Type	Aspect Ratio
Logitech Z120	775	1.2 Watts	20 Hz - 20 kHz	3.5	2	16 : 9
Altec Lansing MX6021	9,000	200 Watts	40 Hz - 20 kHz	RCA and 3.5	2.1	5 : 4
Creative Inspire T6200	4,250	70 Watts	35 Hz ~ 20 kHz	3.5	5.1	16 : 10
Altec Lansing V2621	1,970	28 Watts	45 Hz - 20 kHz	3.5	2.1	16 : 9
Audio Engine A2	9,500	60 Watts	65Hz - 22kHz	RCA and 3.5	2	16 : 9

PMPs

PMP	Price	Screen Size	Resolution	Memory	Screen Size	Resolution
Creative Zen X-Fi Style	8,999	2.4-inch	320 x 240	16 GB	3.2 inches	320 x 480
ZebMate Cinema 3.0+	2,900	3-inch	400 × 240	4 GB	3 inches	320 x 480
Creative ZEN Style 300	4,350	1.8-inch	128 x 160	8 GB	2.44 inches	480 x 360
iPod Touch	25,900	3.5-inch	960 x 640	64 GB	2.8 inches	640 x 480
Zebronics Zebmate Cinema 4.3	4,200	4.3-inch	NA	8 GB	4.3 inches	480 x 800
Sony Walkman NWZ-S540	6,990	2.4-inch	240 x 320	4 GB	3.7 inches	480 x 800
COWON D3 PLENUE 16GB	18,000	4-inch	480 x 800	16 GB	4.3 inches	480 x 800

LAPTOPS

Laptops	Price(R)	Processor	Screen Size	Installed OS	HDD	Native Resolution
Acer Aspire S3	52,900	Intel Core i5-2467M 1.6GHz	13.3-inch	Windows 7 Home Premium	320 GB	1366 x 768
Wipro e.Go Aero	35,900	Intel Core i3-380UM 1.3 GHz	11.6-inch	Linux (Windows 7 optional)	320 GB	1366 x 768
Alienware M14x	94,500	Intel Core i7-2720QM 2.2Ghz	14-inch	Windows 7 Home Premium	320 GB	1600 x 900
Lenovo Thinkpad Edge E420	45,619	Intel Core i5-2410M 2.3 Ghz	14-inch	Windows 7 Professional	500 GB	1366 x 768
Apple Macbook Pro	84,900	Intel Core i7 2.7GHz	15.4-inch	Mac OS X Lion	500 GB	1920 x 1200
Dell Inspiron 15R	42,100	Intel Core i5-2430M 2.40 GHz	15.6-inch	Windows 7 Home Premium 64bit	500 GB	1366 x 768
Lenovo Ideapad Y570	42,700	Intel Core i5-2410M	15.6-inch	Microsoft Windows 7 Home Premium	750 GB	1366 x 768
Acer Aspire 5755G	44,289	Intel Core i5-2410M 2.30-GHz	15.6-inch	Windows 7 Home Premium	750 GB	1366 x 768

digit

KILLER RIGS
everything you'll ever need to build your own PC. whatever your budget.

PRIMARY COMPONENTS

MOTHERBOARD
- ASUS P8H61-M LE – ₹3,600
- MSI-H67 MA-E35 – ₹4,700
- MSI-H67 MA-E35 – ₹4,700
- ASUS P8Z68-V Pro – ₹14,248
- ASUS Maximus IV Extreme Z – ₹26,220

PROCESSOR
- Intel Core i3 2100 – ₹5,600
- Intel Core i5 2400 – ₹9,650
- Intel Core i3 2100 – ₹5,600
- Intel Core i7 2600K – ₹15,800
- Intel Core i7 2600K – ₹15,800

RAM
- Corsair Value Select 2GB DDR3 1333MHz – ₹860
- Corsair XMS3 2x2 GB DDR3 1333 Hz – ₹1,750
- Corsair XMS3 2x2 GB DDR3 1333 Hz – ₹1,750
- G.Skill Ripjaws (2x4) 8GBXL – ₹3,400
- G.Skill Ripjaws (2x4) 8GBXL – ₹3,400

GRAPHICS CARD
- Galaxy GTX560 – ₹10,300
- XFX HD 6450 – ₹2,650
- EVGA GTX 560 Ti – ₹14,500
- ASUS ENGTX580 – ₹24,700

HARD DRIVE
- Seagate 500GB 7200.12 – ₹2,100
- WD Caviar Black – ₹2,000
- Seagate 1TB – ₹4,400
- Seagate Barracuda 2TB – ₹4,700
- 2x Seagate Barracuda 2TB – ₹18,600
  + Corsair Force GT 120GB SSD

MONITOR
- BenQ G610HDAL – ₹3,900
- Samsung P2350 – ₹10,800
- BenQ XL2410T – ₹24,700
- Samsung P2350 – ₹10,800
- BenQ XL2410T – ₹24,700

- Basic rig = ₹20,675
- High-end multimedia = ₹50,810
- Ultra high-end PC / Gaming rig = ₹1,58,620
- Mid-range gaming rig = ₹53,330
- High-end gaming PC = ₹87,198

SECONDARY COMPONENTS

CABINET
- Cooler Master Elite 310 – ₹1,500
- CM Elite 430 – ₹2,620
- CM Elite 430 – ₹2,620
- NZXT Guardian 921B – ₹4,000
- Cooler Master HAF922 – ₹6,700

SOUND CARD
- Asus Xonar DX 7.1 – ₹4,740

KEYBOARD
- Zebronics Judwaa 5 (Bundle) – ₹465
- Razer Cyclosa (Bundle) – ₹2,700
- Logitech K100 – ₹265
- Razer Arctosa – ₹2,100
- Razer Black Widow – ₹7,300

SPEAKER
- Altec Lansing Classic Audio BXR1221 – ₹900
- Altec Lansing V2621 – ₹1,960
- Creative Inspire T6200 – ₹5,400
- Creative Inspire T6200 – ₹5,400
- Logitech Z506 – ₹6,700

MOUSE
- Zebronics Judwaa 5 (Bundle) – ₹350
- Razer Abyssys (Bundle) - ₹1,000
- Microsoft P58 – ₹375
- CMStorm Inferno – ₹2,800
- CMStorm Inferno – ₹2,800

OPTICAL DRIVE
- LG 22x SATA DVD Writer – ₹950
- LG 22x SATA DVD Writer – ₹950
- LG 22x SATA DVD Writer – ₹950
- LG 12x Blu-ray OEM RW – ₹6,500

POWER SUPPLY
- VIP 350 Watts – ₹800
- Cooler Master GX450 – ₹3,500
- Cooler Master GX450 – ₹3,500
- Corsair TX650 – ₹5,400
- Seasonic X850 – ₹9,800

MISCELLANEOUS

HD MEDIA PLAYERS
- Asus O!Play HDP R1 / ₹5,500
- WD Live TV Hub / ₹11,990
- Iomega ScreenPlay DX 1TB / ₹9,000

MOUSEPAD
- Razer Goliathus – ₹450
- Cooler Master Storm CS-M – ₹850
- Razer Goliathus Fragged Control Edition – ₹999

GAMING HEADSETS
- Platronics Gamecon 367 – ₹1,700
- Alienware TactX Headset – ₹3,500
- Corsair HS1 – ₹4,999

GAMING CONSOLES
- Sony PlayStation 3 Slim (320GB) with Move – ₹19,990
- Xbox 360 (250GB) with Kinect – ₹30,061
- Nintendo 3DS Black – ₹17,490

CONTROLLERS
- Xbox Controller – ₹1,300
- Logitech Momo – ₹6,400
- Saitek Cyborg Evo – ₹3,100

POWER PROTECTION
- APC (BR600CI-IN) – ₹2,165
- Numeric SB1000 – ₹4,700
- APC (BR-1000IN) – ₹5,500

Apple iPad 3 rumours
Here is our take on what will comprise the next generation of Apple iPad
http://bit.ly/q9SQaa

Amazon, Apple or Barnes & Noble?
Kindle Fire vs iPad 2 vs Nook Color: Specs and features comparison
http://bit.ly/of2FPx

Pain pain, go away

What do you do when the warranty runs out but problems continue full steam ahead?

This content is brought to you by
consumer mate

We can help!

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

Kapil Rustagi
readersletters@thinkdigit.com

Karan Luthra, a Delhi-based law professional purchased a notebook from a well known US company. It worked fine for the first few months but he soon noticed unusual sounds coming from the machine, which were duly reported to an authorised service centre. The service centre changed the required software and hardware and claimed to have fixed the problem. Thereafter, the product had to be given to the service centre time and again. The product continued to have recurring problems even as the warranty expired and that's when a whopping amount was quoted for repair – almost equal to the price of the product. Luthra sent a legal notice to the company, setting out a case of inherent manufacturing defect and he was given a new product by the company despite the warranty period being over.

Warranty period isn't the dead-end of consumer rights. A company cannot shirk away from the responsibility of servicing a product, especially when it is constantly under repair during this period. The warranty period entitles a consumer to get the product repaired free of cost, but it doesn't allow the company to produce a defective product. If a product suffers from chronic problems, the defect is said to be inherent in the product right from the manufacturing stage.

To prove and establish your product to be inherently defective, it's important to have all the documents and sequence of events in place. Note down all the events, complaint number and index the entire job sheet. Indexing the job sheet means insisting the service centre executives to note down all the deficiencies in the job sheet clearly. Never give or take back any product without any written document and in case you're not satisfied with a particular diagnosis or service, have it mentioned in writing while taking it back from the service centre.

We're not suggesting that you wait to redress problems beyond the warranty period. In fact the consumer should note that towards the end of the warranty period even if the product is working fine, the service executive must be called for overhauling the product. This preventive exercise would help foresee deficiencies.

COMPLAINTS RECEIVED

Laptops
LCD screen of Lenovo laptop is displaying some vertical lines
My Z470 unit has a vertical line on the right-side portion of the LCD after only three days of use. The unit was repaired and after 13 days the vertical line has reoccurred. Also, the after-sales service repair took more than a month.
Contacted By: *Ace Eric Salcedo*

Answer by Consumermate:
The delay occurred in repairing the product itself amounts to deficiency in services. This is nothing but sheer harassment at the hands of companies who make big claims for their products and have little reality when it comes to supporting their consumers. This seems to be a case of inherent manufacturing defect. It's the company's duty to repair it to your satisfaction without any charges. Give it to the service centre and instruct them about your problems. Any such delay or dissatisfaction in repairing the product would amount to deficiency in services which is actionable under the Consumer Act prevailing in India. You can write a letter to both, the company and the seller and call upon them to rectify all the problems within a specified time. Please keep a record of all the essential documents which would be crucial to establishing your case in the consumer forum if replacement of the product is required.

Cellphones
New phone has some serious network-related issues
I bought a new Samsung Wave II S8530 15 days back but on my Vodafone network the Internet is not working properly. In the same area and on the same network, other mobile phones such as Nokia E5 work well with no network problem. I have the bill and want to exchange this cell for an Android Samsung cell. The current phone doesn't have a YouTube downloader and the quality of the YouTube videos are not of good enough quality to share with friends. Also pictures sent by email are of inferior quality and you doubt whether this really is a ₹14,600 mobile. Please respond with the procedure to replace or get my money back.
Contacted By: *Hemat Maruti Adavkar*

Answer by Consumermate:
We understand your pain and disappointment. Thanks for sharing your inputs and experience about the product which would be beneficial to prospective consumers. If you want to be refunded, you will have to take legal action against the company and reseller from whom you've purchased the product. Please write to them about the loss and ask for damages. You must send a legal notice to them raising all these contentions. In case they don't come up with a solution then you may go ahead with your complaint in the district forum. Please keep a proper record of all the essential documents which would be crucial to establishing your case in the consumer forum. I hope once you write to them, they will come forward to redress your grievance as a priority.

worldview

OUR PICK OF THE BEST TECH ARTICLES FROM AROUND THE GLOBE

(Kotaku Corner)

WHEN STREET FIGHTER MET G.I. JOE, THE WORLD SUFFERED

Total Recall is a feature on Kotaku that explores the history of video games through its characters, trend and developers. Here's an interesting article on how the idea of creating action figures of Street Fighter characters didn't really work out the way it was intended. **http://bit.ly/pUSAgf**

The beautiful art of Call of Duty: Black Ops
There's more to Call of Duty than military mayhem. The environments in which the games take place are rarely 100 per cent authentic, which means someone had to dream them up. In this case, it's artist Michael Zimmerman. **http://bit.ly/rqTiLV**

The greatest arcade cabinet that never was
At the turn of the millennium, Namco showed off an arcade game that looked like it had fallen out of the 22nd century. Housed in a giant cabinet called O.R.B.S., it could've been just what the dying arcade scene needed. **http://bit.ly/rahX4u**

What one designer wants for the next Xbox
The next Xbox hasn't been announced. There've been hints and rumours, but nothing official. Gears of War Cliff Bleszinski is no different. Check out what he'd like to see in Microsoft's next gen console. **http://bit.ly/pC4Syl**

ARM UNVEILS CORTEX-A7 PROCESSOR

The chip that will power most future smartphones was unveiled recently. The Cortex-A7 is built using a 28nm fabrication process, is 1/5th the size and more efficient than the current Cortex-A8.
http://engt.co/qrNzLn

WHAT IS OINK?

ink is a mobile app that lets you rank things in different places. So instead of ranking a restaurant or point of interest, you can rank specific things at those places.
http://tcrn.ch/r4cWwG

THE BEST IM APPS

These days smartphones are seldom used for just calling people as conversations are forsaken in this new era of apps. Here's a list of the best IM apps for iOS and Android, both free and paid. This is a boon ever since TRAI came out with the 100 messages-a-day rule.
http://gizmo.do/oUKyGy

A SEVEN INCH IPAD?

If you happen to be a fan of small form factor tablets – particularly the ones which have the magical seven-inch size screens and you wish the iPad was that size – well forget it. It's quite possible that this will never happen. Why you ask?
Read on to find out:
http://gizmo.do/ri4CwR

Android Ice Cream Sandwich demystified

- By Ray Walters

We give you the snoop on all the new features in Android 4.0

Like the rest of the Google-savvy geeks out there, everyone in the ExtremeTech bunker was glued to the live YouTube feed announcing Android 4.0, Ice Cream Sandwich (ICS), running on the Samsung Galaxy Nexus. Like most product releases, there were features that had been heavily leaked and some bells and whistles that were pleasant surprises. Overall, ICS is an improvement to the Android platform and it's running on a beautiful device.

The hardware presentation from Samsung did not hold any surprises since the specs for its newest flagship handset have been leaked and reported repeatedly, so there is nothing really there to explore. However, Android 4.0 itself has some very juicy features indeed.

New lockscreen with "Face Unlock" recognition: Since most modern handsets have started shipping with a front-facing cam as a standard feature, the Android team decided it was time to throw in some facial recognition and allow you to unlock your phone with your ugly mug. Traditionally, Android had a code number or a drawing interface to unlock a handset upon wake up. Those features are still there, but now

using Face Unlock, a user can simply point the device at their face and let the phone recognize them from a stored photo.

While not a terribly fast way to unlock your device, it adds a bit of elegance to the design. During the announcement, Facelock (that's what we're calling it) failed to recognize the speaker when he tried to demo it. Hopefully production units will not have that issue.

Honeycomb makes its way to handsets: There was a lot of buzz in the Android user base about Google's decision to keep the source code to Honeycomb in-house. It turns out there was a good reason for this, as ICS has done the job of bringing the best Honeycomb features to the smartphone form factor.

Check out the list of additions to ICS that are from Google's tablet based Honeycomb:

Re-sizable widgets: you can now decide how big or small to make information on your home screens.

Stacks: some apps like YouTube, Market and News Republic have a sweet looking widget where information is displayed in graphical stacks of "sheets". With a finger flick, sheets can be moved to the back of the stack in a really nice animated way.

Widget Placement: Android 4.0 makes it easier to place widgets on a desktop with a simple long press of the screen. From this long press, a menu pops up giving you all available widgets in a graphical format.

Soft buttons: Honeycomb-based tablets have no physical

buttons except power-on and the volume rocker. Interacting with the OS is all done through soft buttons on the screen, which has been brought into ICS now as well. Because of this, the screen of the Galaxy Nexus is 4.65 inches big, with very narrow bezel (4mm). It is honestly beautiful to look at.

New additions to the Android source tree

With this being a full version upgrade, there were expectations of new functionality in Android, and Google did not disappoint. Here is a breakdown of the brand new features:

Roboto: We know you are singing the classic Styx song in your heads right now, which is probably the point that Google was driving after.

The Android team had three main goals with 4.0: making ICS beautiful, innately smart and simple. Roboto falls into the beautiful category. It smooths out the feature text a bit, giving it a more elegant feel. It was described as giving the OS a magazine-like layout.

Browser updates: Chrome sync is finally a reality for Android users. Now all your bookmarks will be synced between your devices and desktops. A much needed addition to

be sure. Also added is the "full site" button, where a user can switch the site being looked at to full desktop mode and back to the mobile version. Incognito tabs have been added to the browser as well. Last but certainly not least, the Android team has implemented a swipe-to-dismiss for open tabs functionality. With one press of a button, all available tabs are listed in a visual scrolling list, allowing for a simple finger swipe to close a desired tab.

Interface improvements in multitasking and app closure: This is a feature that fits both in the Honeycomb ports to ICS and in the new additions and it borrows heavily in the visual department, but adds the swipe-to-dismiss feature.

Android 4.0 has a multitasking button that brings up all your recent apps right where you left off, just like with Honeycomb. The big difference is that a user can actually dismiss and close an app with a finger swipe, just like in the browser.

Productivity app improvements: Gmail and Google Calendar were both highlighted as having some useful updates. In Gmail, the resolution of the screen allows for a two-line preview of received emails, making it easier to prioritize information. Offline search has been added, giving much more power to the mobile device to find an older message. Also integrated into Gmail is the new "People" app.

The big improvement to Google Calendar is the ability to pinch-to-zoom to expand the information displayed on the screen. From a month long calendar it is now possible to zoom into the info, making it much more useful.

Contacts and social networking improvements: Google has streamlined your contacts with 4.0. Now, all information on a contact is drawn from the social network connections made with them, as well as any custom info that you define. The Android team has named this functionality "People," which looks very reminiscent of Windows Phone 7. Each contact gets a visual information card in the system that gets live updated when the contact updates their Google+, Twitter, or LinkedIn profile (no mention of Facebook, however). People is integrated throughout Android 4.0, with "chips" that are mini visual info cards that pop up in Gmail and the phone application.

Built-in data usage management: Ice Cream Sandwich finally includes a stock app that gives you granular control over network activity and the ability to view a specific app's data usage. You can even set a warning (for when you cross 1GB, for example) and a hard cap, to make sure you don't pay stupidly excessive overage charges.

The best new features in Ice Cream Sandwich

Hands down the two most impressive updates were the improvements to the Camera app and the use of NFC for information and app discovery. The Camera app added an impressive panoramic functionality that has pro photogs buzzing. ICS (or perhaps ICS when used with the Galaxy Nexus) has zero shutter lag allowing you to take images much faster. Using this upgrade, ICS allows a budding photographer to sweep their phone in a smooth motion at a view they want to capture and creates a panoramic image right inside the handset. The app liter-

ally does everything for the user, takes the necessary images and stitches them together into one panoramic image. The demo of this was very cool indeed.

NFC chips are certainly gaining traction in usefulness in the mobile marketplace. ICS adds some interesting functionality using the relatively new tech. By tapping two handsets with ICS and NFC installed users can trade contact info, Maps directions and app recommendations right between their two systems. You can be playing a game on your ICS handset and if another person pushes their handset up against yours, a link to the game on Android Market magically hops across. The possibilities for NFC use in this way are endless: games of tag, information that is shared when a person checks in some place and other cool ways to put NFC to work.

The source for ICS won't be dropping for a few weeks, but the Android SDK has been updated, so you can play around the emulator if you like. The Android Developers site also has a complete list of Ice Cream Sandwich's key features, if you're interested — and finally, there's an introductory video embedded below. The Galaxy Nexus will drop in the States, Europe, and Asia sometime in November, but the pricing and carrier availability is not yet known.

If you're looking for quirky and innovative industrial designs then Core 77 design studio might have something for you. Check out how design ideas can trans-

form limited space into something futuristic and comfortable. This may well be how we might dwell in the future. Who would have thought that furniture could be this interesting.

http://bit.ly/nChzkA

(QR Code)

For a list of all the links from this section head over to http://minmu.net/WVNov11/ or scan the QR code above with your mobile device.

(PRODUCT LAUNCHES)

SAMSUNG GALAXY NEXUS

The first phone to sport Android 4.0 "Ice Cream Sandwich", the Samsung Galaxy Nexus has a whopping 4.7 inch Super AMOLED display, 1.2 GHz dual-core CPU, 1 GB of RAM and a 5 MP camera. The latest Android OS brings some interesting new features too.

IPHONE 4S

The world was expecting iPhone 5, but all Apple managed was to take the wraps off the all new iPhone 4S. It has a dual-core processor, 3.5-inch retina display screen, 8 MP camera, a faster GPU and Siri – a voice controlled intelligent assistant.

LENOVO K1

The company's long-expected foray into the tablet market took off with the Lenovo K1, a 10.1-inch Android 3.1 tablet. Lenovo claims that its two-cell battery can give you a battery life of 10 hours. It's 32GB model is priced at $499 which is a cool $100 cheaper than the competition.

WORDJUMBLE

ABSOLUTE TIMEPASS

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

Believe it or not there are 25 words hidden in this grid find them all

Top 3 You Tube Picks

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

Uncharted 3
Duration 2:27
Watch Uncharted 3 Drake's deception's trailer then remove jaw from the floor.
http://bit.ly/nSDwwQ

Google beer
Duration 13:18
Dogfish restaurants and Google have collaborated together to create Google beer!
http://bit.ly/qUUBo2

Top 8 horror films
Duration 9:34
Film State movie expert Ryan has short listed eight top horror flicks of all time.
http://bit.ly/nuA79R

IMPROVE YOUR VIDEO PLAYBACK

Despite the convenience of codec packs and le ole' trusty VLC, everyone's had their share of days when they've felt their videos to be stuttering too much, the colours look a tad too washed out or there's too much pixelation. Fortunately, most DirectShow players and decoding filters are versatile and can be customised to suit one's needs – be it to speed up laggy videos or to improve visual fidelity at the cost of putting their CPUs under some more load. This article will mostly contain examples from Media Player Classic – Home cinema

video processing to the GPU and improve performance that way. You'll need to go to Media Player Classic – Home Cinema's Internal Filters screen and disable FFMpeg decoding of H264, VC-1 and MPEG2 video so your graphics card can take over. Once you've done that, double click on the filters that have DXVA in brackets and set the decoder to "Skip all checks" for NVIDIA cards and "Full checks" for ATI/AMD cards. You'll also need to select a compatible renderer, more on that coming up.

If you have CoreAVC installed and an NVIDIA card, you can also take advantage of your GPU's CUDA processing for performance boosts.

Original

Enhanced

or ffdshow, but these changes can also be made on, or could affect, any half-way decent video player software because they're built around ffdshow or libavcodec anyway.

Queue output samples

This neat option is rather inexplicably disabled by default on ffdshow. When enabled, it allows the CPU to immediately move onto the next frame when it's done processing one, instead of wasting cycles like it does on default behaviour. It's most likely to be useful when you're experiencing lag in "heavy" scenes, but not throughout the video. To enable this option, open up the ffdshow video decoder configuration (usually at `Start > Program Files/`

`All Programs > ffdshow > ffdshow video decoder configuration`) and go to the option named "Queue & misc". Check "Queue Output Samples" and "Enable queue in VMR9-YV12" and uncheck "Use Queue only in:", unless you run into compatibility issues
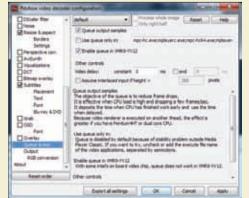
Enable DXVA

Most modern day video cards now support partial or even complete video decoding, so if for some reason your CPU is struggling and you have a Pure-Video compatible NVIDIA card or an AVIVO compatible ATI/AMD card, you can offload your

Pick a good renderer

Most Video Players default to the Overlay method of rendering video, which while decent in quality is not the best on offer. Much better options include VMR9, which uses D3D9, or if you're on Vista or Windows 7, Enhanced Video

Queuing output samples, improve performance
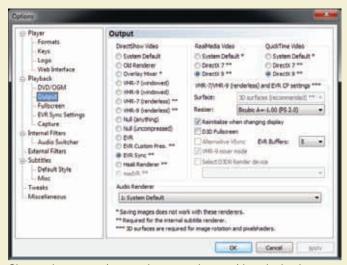
How to enable DXVA on MPC-HC

Choose the appropriate renderer to enhance video playback

Renderer. The benefits of using these renderers include the reduction or elimination of screen tearing, allowing cards to render video as textures which results in higher quality, and the facilitation of DXVA. Be warned though, if your PC is too much of a fossil, it won't be able to handle these renderers because you'll need hardware that's at least D3D9 capable.

Nearly every player has an option to select the renderer you want to use, so go ahead and choose. The exception being Windows Media Player, which defaults to EVR in Vista and 7 anyway. In MPC-HC, you'll find the renderers listed in the Output tab, under the Playback section of the options.

Convert to RGB

YV12 is the default output colourspace for codecs, but using NV12 or RGB might result in better quality. NV12 because it's the colourspace used in DXVA, and is required for hardware deinterlacing. And RGB because it's generally more accurate and results in better quality subtitles – but taxes your CPU a tad more.

If you're indeed converting your videos to an RGB colourspace, and your CPU has power to spare, make sure to select the ITU-R BT.709 conversion method, check High quality YV12 to RGB conversion and Dithering. The latter two options make the colour conversion happen in 11-bit or above, which otherwise happens in 8-bit and could result in a phenomenon known as colour banding, where pixels of a particular colour tend to "band" together, stand out from the rest of the image and look very low quality. Alternatively, you could also procure or encode your videos in a Hi10Profile, which ffdshow and CoreAVC now natively support.

Another thing that goes un-noticed is that while most videos, and indeed televisions, display images in a colour range of 16-255, Monitors expect a 0-255 signal from the PC. Setting the output levels to 0-255 will result in blacks that are slightly blacker, resulting in less washed out colours and more contrast. Be careful not to select the input range as 0-255 though, because that will result in doing the exact opposite – the loss of contrast and colour depth.

All these options can be found under Output and RGB Conversion in the ffdshow configuration window.

Upscale video
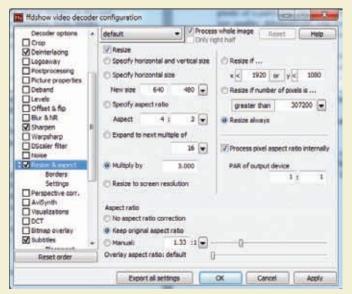
You can use ffdshow to upscale your video for drastic improvements in quality, provided your source video is of a sufficient quality. This happens because using the decoder to resize the video is a better option than letting your GPU or Display stretch the image out to fit your screen. It also results in sharper subtitles of a much higher resolution than usual.
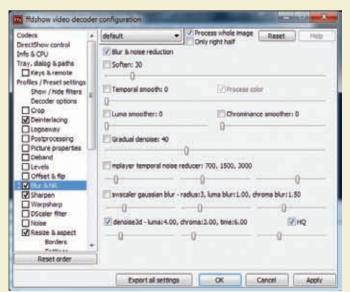
There are several resizing options to choose from. You can choose to resize the video to fit your screen resolution, or if you're hungry for even more quality use multiples to go as high as your processor allows you to. 2x or 3x is usually the sweet spot for a 1080p display, unless you're resizing a 1080p video and your processor can't handle it! Make sure to select "Process Whole Image" at the top of the config screen, though.

Denoise/sharpen/de-interlace

These are the other options you can use to extract some more quality out of your videos. Denoise 3D, which sits under the "Blur & NR" category in ffdshow, does just what you'd expect from a filter with that name – it seeks to remove noise from a video. It uses a lot of processing power though,

Correctly upscaling a video could result in noticable quality gains

Enable denoise3d to reduce visible noise in the video

especially if you check the "HQ" option, so be warned.

In the "Sharpen" category, the "unsharp mask" option creates a blurred version from the original image which is then subtracted. This results in contrast boosts and a rather sweet boost in picture quality.

For De-interlacing, we recommend the "Yet Another DeInterlacing Filter" under the "Double framerate" mode, which creates a progressive image and doubles the framerate. This results in motion that's smoother and quite clearly perceptible to anyone who watches the video before and after applying this setting.

Again, make sure to select "Process Whole Image" for all three of these settings.

So there you have it, hopefully you enjoy your "enhanced" video playback. Happy watching.

GOOGLE SPREADSHEETS

Google Docs Spreadsheet is a part of Google's cloud-based productivity suite. Apart from the usual tools and functionality that a Spreadsheet program would provide, Google Docs Spreadsheet has a trick or two hidden up its sleeves. Here are a few tips to enrich your Google Docs experience.

Look up with GoogleLookup

Imagine, that you're making a spreadsheet on Greatest Musicians of 20th Century and you want to fill up details like the artist's date of birth, birthplace, first gig, etc. An intuitive way to proceed would be look up the

Select the data most pertinent to you from a host of sources available

details on Wikipedia and fill up the spreadsheet. A smarter way would be to use GoogleLookup function that Google Docs Spreadsheet provides. The formula looks something like this:

GoogleLookup can even search for text on the internet

```
=GoogleLookup("entity";
"attribute")
```

Here "entity" represents the name of the entity you want to get information on while "attribute" determines the type of information required. You can use lookup to populate the spreadsheet directly with the information retrieved from the Internet. Also GoogleLookup does not limit itself to numeric data, you can also use it to pull textual information from the web. Bear in mind that this does not work every time, when confused or not able to find answers, it will keep throwing up dialogs saying it could not connect to the Internet or just "#NA". Also it

does not come up with the right answers every time, when using GoogleLookup try to be as objective as possible to get an answer.

Apart from this you can use GoogleFinance and GoogleTranslate to access Google's other web-services. GoogleFinance can get stock market quotes and other related data updated to your spreadsheet. It also has a history feature which tracks the price of a company's stock. To get the symbol that the company uses on the stockmarket, use

```
=GoogleFinance("symbol";
"attribute")
```

GoogleTranslate can be used to translate text from one language to another and also to detect languages in the spreadsheet. The only catch here is that you must know the ISO 639-1 language codes of the languages involved in the translation. The code used is `=GoogleTranslate(""text", "source language", "target language")`

Manage revisions

Google Docs is a collaborative tool i.e., it allows multiple users to work on the same document at the same time. This can also lead to files that aren't consistent though. Google Spreadsheets provides "Revision History" to alleviate the problems associated with concurrent access. You can access the revision history of a spreadsheet from the File Menu.

Clicking on each revision will highlight the changes

Going back in time was never easier

made by each user. When you reach a particular revision you want to revert your document to, just click on the "Restore this revision" link and the spreadsheet will be returned to the state it was in at that particular revision. Revision history also works for documents that are private to you.

Validate data

Another thing to be careful about when many people are collaborating on the same spreadsheet is that everyone may not input the correct type of date. Say, you want to make sure that your collaborators only enter well-formed email addresses then just add validation to that particular column. Select the row or column you want to validate, go to Data
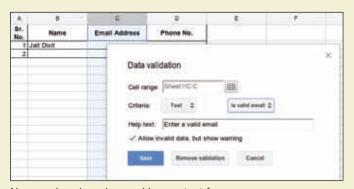
Validate sections of a sheet to control erroneous data entries

>Validation, under the criteria dropdown box select Text and, in the very next dialog box select "is a valid email". You can also enter Help Text to aid other viewers in understanding what exactly to enter in that particular field. You can also allow invalid data to go into the spreadsheet, while can display a warning at the same time. Validations are not limited emails only, you can

Be as specific as possible when using GoogleLookup

No more hassles when making contact forms

A simple contacts table would look like this

And this is the state of the table after YAMM works its magic

Refine and control numeric data entered into a sheet

Make sure the fields to be fetched in the mail are enclosed in "$%" and "%"

validate the content for urls, numbers and dates as well.

Mail merge

Create a new spreadsheet, go to Tools > Script Gallery, search for "Yet Another Mail Merge". Click on the Install button to start installation of the script. Authorise the script to work with both Google Docs and Gmail. You can now see a new menu entry in your Google Docs menu which says Mail Merge. Populate the spreadsheet with the data that you want filled in

the mail, it can be anything but do not forget to add an email column here. Head over to Gmail and type in the mail you want to send using mail merge. Here, the fields which are to be replaced by data from the Spreadsheet are to be enclosed in "$%" and "%" e.g. "$%First Name%. Make sure that the names between "$%" and "%" are the same as the column names in the spreadsheet, also keep the TO field blank and a BCC to yourself is optional. DO NOT press send, click on the

The permission to access Gmail is valid just for that particular session

Save Now button so that the mail is saved in the drafts.

Now hop over to the spreadsheet in which you installed the script, Go to Mail Merge > Start, which will bring up a popup which says "Yet Another Mail Manager". Select the draft which we had saved in Gmail, after this, the script will do all the work. Popups will show the progress and notify you when the mails are sent. Keep in mind that the installation of the script is not permanent and you'll have to install the script each

time you want to use it, and it will ask for your authorisation each time. In case you get an error saying "Select Template Function not found", clear all cookies from the browser and try again. In case you're getting an error citing "Cannot connect to Gmail", you'll need to remove some of the drafts. Google App Scripts have quotas associated with them, and you can't access large directories from your Gmail account or fire off queries resulting in a large set of results.

Authorise the script to install itself

UBUNTU 11.10

The much anticipated iteration of Ubuntu, Ubuntu 11.10 Oneiric Ocelot is finally here. And as is the norm with all October releases, this one is more polished and packs in a large number of improvements over its predecessor. Here are some tips to enhance your Ubuntu experience.

Tweak the appearance

Appearance settings lack the depth and range of operations which could be performed in the previous versions. To get back full control and the look and feel of the gnome shell, use the Gnome Tweak Tool. You can download it in two ways, either use the software centre or the command-line.

To get it using Software Center, fire up Software Center and search for Advanced Settings, click on Install and you're done. Installing it via Terminal is also easy, open up Terminal

Make Gnome look the way you want it to

and use the following command
```
sudo apt-get install gnome-tweak-tool
```
Once installed the applications is listed as Advanced Settings in the Dash, you can use it to manage themes, fonts, desktop and shell behaviour.

Re-enable the notification area

By default all the applications do not have the privileges to reside in the system tray. This is especially true for applica-

Systray in all its glory!

tions like Shutter or Jupiter. To enable this you must white-list these applications.

Use the following command in a terminal: `gsettings set com.canonical.Unity.Panel systray-whitelist "['all']"`

Log out and log in again and Voila! You're done.

Configure Unity

You can tweak some parts of Unity's behaviour, such as use of the Super(Windows) Key, time-out after which the Dash is hidden and so on, using the Compiz Config Settings Manager. Download it using apt-get from the terminal, use the following command:
```
sudo apt-get install compizconfig-settings-manager
```
Open the just downloaded Compiz Config Settings Manager, click on Ubuntu Unity Plugin to get a list of all Unity settings.

In case your system is running Unity 2D, you'll need the dconf-tool to make changes similar to Compiz Config Manager.

To get the dconf-tool, open up a terminal and enter the following command:
```
sudo apt-get install dconf-tool
```
After the apt-get completes downloading dconf-tool you can change the setting using the dconf-editor. Start the

Change Unity 2D behaviour using dconf-editor

dconf-editor by entering dconf-editor at the prompt and hit-

Logging into a Gnome session

Using Compiz Config Settings Manager to tweak Unity

ting enter. You'll find Unity 2D's settings under `com > canonical > unity-2d,`. You have two options here: launcher and panel. After you have made the changes hit the Set to Default button to save your configuration settings.

Install Gnome 3.0

Gnome is no longer shipped with Ubuntu, you'll need to download it separately. Fire up a terminal, enter the following command:
```
sudo apt-get install gnome-shell
```
This will download and install Gnome 3,. After it completes, log out of the current session. On logging out you'll reach LightDM.
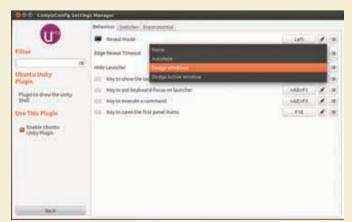
Click on the small gear in the login box, which will let you select which session you want to log in to. Select

Gnome, enter your password and log in, you'll now log into a Gnome 3 session. Have fun exploring!

Gnome 3.0 desktop

SETTING UP A PC FOR YOUR PARENTS

Our parents, old and wise they may be, but they are usually befuddled by the simplest of tasks relating to a computer. Being Digitians, we have the knowledge to ease our parents' burden when it comes to the computer. The main aim of this process is to ensure that your parents' interaction with the computer be kept at a bare minimum. In fact, follow the "Palm" philosophy and try and ensure that they can get to what they want within 3 clicks of the mouse.

High visibility cursors will ensure that your parents know exactly where to point

Rename shortcuts

Start off by creating a folder on the desktop. Give it a name that your parents would remember, even something like Windows' own "Click here to Start" should be enough. Make sure that the folder icon you use is clear and prominent, say a bright colour or a very large size.

Now, put into that folder shortcuts for every single programs you think your parents might need to use, or you might want them to use, as you try to assist them from the other end of the world.

Rename all the programs to something relevant. For example, rename Google Chrome to "Internet Explorer", or, say, OpenOffice Writer to

"Word". In fact, Windows supports very large file names, feel free to add a full description of what the program does if you so feel like it. You can rename programs like Skype to "Click to chat with your kids!" or something similar. You can even try renaming programs like Outlook Express or Mozilla Thunderbird to "Check your email" and so on.
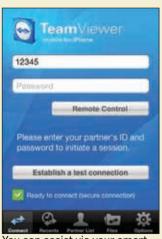
Automate tasks

Download and install all programs that are required for the smooth running of your PC. Essentials include a good defragmenter, anti-virus and anti-spyware software. Make sure that all these programs are set to update automatically at regular intervals. It's also best to set these programs to perform their tasks autonomously in the background. If they have an option where they can be set to run while the screensaver is running, enable it.

Access the internet

Another area where parents notoriously struggle. First and foremost, try to setup auto login for your Internet connection if required. Setting up PPPOe in the modem or router beforehand will also help. As

You can assist via your smart phone as well

The Ubuntu desktop, master it and it will be your friend

mentioned earlier, rename your favourite browser to "Internet Explorer". Setting up Speed Dial is something that you must do. As with the essential programs folder, the speed dial should house all the web sites that your parents would need to visit. Attach labels according to the usage rather than the web site name. Another thing you can do is to ensure that autologin is enabled on all the web sites your parents will need to login to and that the usernames and passwords for those web sites are stored before hand.

Ease accessibility

Enlarge the pointer using the pointer options found within your OS. It's best if you specifically choose the high visibility, enlarged, black pointers. Do the same for the icons as well. If you're using Windows 7, configure the libraries well and make sure your parents know how to access them.

Enable "Ctrl to highlight pointer" in the mouse options in the Windows Control panel. This is a very useful feature as your parents, most probably, will spend a lot of time hunting for the mouse. In Ubuntu, you can enable the "eyes" in the classic gnome taskbar. Perfect for keeping an eye (2 in this case), on the mouse at all times.

Install TeamViewer or any such remote access software so that you can have control

of your parents' PC from anywhere. The advantage of a software like TeamViewer is that you can not only use it from any PC, you can also remotely control another PC (your parent's PC) via an iOS or Android device as well.

Setting up PPPOe in Ubuntu is a breeze

Set them up with Ubuntu

This might seem counter-intuitive as not many students themselves are comfortable with using Linux, so how will your parents deal with it?

The main thing here is that using Ubuntu would, arguably, be easier for your parents to use, especially if they don't have any Windows specific app that they need to run. The OS is secure compared to Windows, your parents can plug in pen drives and not worry about viruses, messing with any major setting, even installing applications will require an administrator password, PPPOe is easily configured in Linux. Installation of

any software can be done via simple text commands in the terminal or via the bundled software manager. No more hassles with spyware and malware as you would never need to get your parents to go to a web site to download any required software.

All the basic Windows software has a counterpart in linux. OpenOffice, all the browsers except IE (which can still be emulated via wine), VLC, Thunderbird, most of the bundled games, etc.

An indirect advantage of linux would also be that the pesky little neighbour's kids won't be able to come and mess about with the computer too much while you're away!

For the setup, just install Ubuntu on one large partition. Unity would be preferred as you can just add all the essential programs in the side-bar. Set up automatic updates and make sure that all the necessary codecs and browser plug-ins are installed. Install programs like Picasa to manage images, VLC for videos, etc.

FACEBOOK

This social networking site needs no introduction. It's a site that's, almost literally, all pervasive and is as synonymous with the internet as Google.

Enable timeline

Facebook had recently announced that they were going

The facebook language options, don't hesitate to experiment

to release a new feature which they called a "Timeline". Unfortunately, the release date for this feature was pushed back. There is however, a way to enable this feature right now.

If you're a Facebook app developer and have a developer account, it's quite possible that you already have a timeline invite and are using it. If you don't, here is how you go about getting one.

You'll first need to enable developer mode. To do this, just log in to Facebook and go to http://developers.facebook.com/apps

Create a new app and rename it to whatever you like. Accept the Facebook Platform Policies and proceed.

You'll need a verified account to proceed beyond this step. Preferably use your mobile number for verification. If you're

worried about privacy, you can delete the number later.

Select "Open Graph" from the left side Select "Get Started". Create a "test action", you can just type in the default examples that are given. You can put say, People can "watch" a "movie" or

The first steps to creating your very own Facebook app

anything else you feel like. Then click on Get Started. Your app should now be ready.

Wait a few minutes and refresh your Facebook homepage. You should now receive a developer invite to timeline.

Change languages

Facebook gives you the option of changing your language. What is so great in that you ask? Well, you can try out some interesting ones like English (Pirate), "What be troublin' ye?", or even leet speak, "wh47 Occup!35 jOOr 7h!nk!ngz?" A few extra like Dothraki or

Klingon would have been much appreciated.

Access deals

Facebook has introduced a feature called "Check-in deals". If you use a smartphone, you just login to the Facebook app and, if you check in and provide your location and what cafe or store you intend to visit, Facebook will notify you if there is a deal available at the place you're visiting. You can then just select "Check in" and you'll be able to redeem that deal. There are various types of deals, some that require your friends to be present and so on. An interesting feature to look at if you're in the habit of travelling a lot.

Express yourself

Facebook restricts your status updates to 420 characters, if,

for whatever reason, you feel a bit more expressive, upload a photo as a status update and then you can type whatever you want underneath!
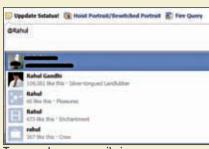
You can easily schedule status updates using LaterBro

Facebook timeline

Tag people more easily in Facebook using @ tags

You can customise your profile pic to create some very interesting home pages. Check out http://www.profilepicmaker.com, this web site offers a service where you upload a profile photo, which it will crop and split to create a whole pile of tiny images. These images need to be uploaded in a specific pattern to your profile. Clear step-by-step instructions on how to do this are present on the web site itself. It will take some care, but the results will be worth the effort.

http://laterbro.com is a good site to check out if you want to send delayed status updates. Login using your Facebook id, select your time-zone, type out your status update and just schedule it for a time of your choice.

Tagging people in a status update is very easy, just add an "@" symbol followed by the name of the person. eg., @ Agent001 will tag Agent 001 in that post.

GOOGLE PLUS
Hang out with hangout

Hangout was an interesting feature started by google to let Google+ users enjoy video conferencing with ease. Now that Google+ has opened up to the public, Google has updated hangout to "Hangout with extras" and introduced a whole slew of new features.

To start a hangout, login to your Google+ account and select, "Start a hangout". Google+ will give you the option of enabling "Hangout with extras" and all

you have to do is check the box and proceed. You can add upto 9 friends individually, or even entire circles. Either way, only 9 of you'll be able to chat at the same time. You'll need the "Google voice and video plugin" installed to be enable hangout. If it's not installed already, Google will prompt you and you should then install it.

Share a screen with hangout
Screen sharing is another new feature which has been added

The interface for Hangout. Set your hair and get started!

to Google+ hangouts. With the press of a button, you can share your screen with anyone. This is very useful if you want to give someone a tutorial on how to do something or just want to share what you're doing at the moment. You can quite literally

air a movie to your friends if you have a fast enough connection. Bear in mind that the screen is only viewed by the other users and cannot be controlled by them.

Collaborate on a document
Google Docs can now be shared and edited on hangout as well. Once you start a hangout, just click on the "+" icon next to the "Documents" header and you can then select the document you want to share. You can then collaboratively edit the document just as you would normally in Google Docs, with the added benefit of being able to chat with each other as you work. There is also a notepad and sketchpad present by default which you can use to add and edit notes and sketch as well. Both these are present

An example of the interface used by Google+ for its Games section

under the "Documents" header and you just have to click on them to open and share.

Game on Google+
Google has started adding games to Google+. You can create a circle consisting of your fellow gamers, for a particular game and only share relevant updates with them. You can play with anyone on the world and still ensure that not everyone has access to your personal details on Google+ itself.
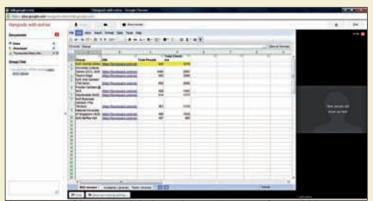
Miscellaneous tips
http://bit.ly/qcL44E adds a +1 button to the omnibox in your chrome browser. This is quite useful as you can just hit +1 in the omnibox whenever you visit a site you want to share, regardless of whether the share icon is present on that site or not.

You can mention people in a post by using the "@" or "+" symbol, followed by that person's name. You can also drag that person's badge into your text or comment.

You can convert text to bold, italics etc. with some simple shortcuts. *text* will be bold, -text- will be struck through and _text_ will appear in italics.

Double-tap "q" on your keyboard to add people to your chat list. 🔴

You and your friends can jointly work on a document from within the Hangout interface itself.

Tool box

Q&A **86**
Crapware, irksome dialogs, motherboard woes, cranky GPU fans...Digit solves all your issues

Google's self-driving cars
The project is still far from being viable, but Google has set up a demonstration system on its campus.
http://bit.ly/pEy3hE

DIY:
Remote Missile Launcher

Mithun Mohandas
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Ever thought of pestering your co-workers? Wanna send a discreet message to your friend who lives in the next flat? Well you can use this DIY to get your job done

The launcher is triggered by a basic infrared remote control made using a 1.5v battery, a push-to-on switch, 510z resistor and a IR LED. When the switch is triggered the IR LED emits infrared light of 940nm wavelength.

The launcher consists of an air-core solenoid coil, an electromagnet which can handle 240volts AC. We sourced it from a doorbell. If it's of any help ask the guy at the hardware shop for a "ting-tong" bell. The solenoid when powered by AC voltage causes the armature to vibrate at 50-60Hz (depending on power source), so we're going to power with DC voltage. Which is in turn obtained by rectifying the voltage through a bridge rectifier. You can buy any bridge rectifier for the purpose or simply make one like we did. We rigged 4 1N4007 diodes to make the rectifier. A word of warning though: we're on a single-phase connection, a three-phase connection requires a different rectifier all together. The rectifier is in series with the AC voltage source and a relay switch. The relay switch is toggled by the phototransistor when infrared light of a specific wavelength is

focused onto it. In this case it's within the range of 380nm to 1180nm (SFH309). If you use the SFH309-FA, ensure that the IR LED is capable of emitting infrared light of 880nm wavelength or in its proximity. The phototransistor, when activated, passes 12 volts into the relay coil. This in turn toggles the relay and completes the circuit.
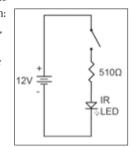
The projectile should be thin enough to pass through the core of the coil. Having a magnetised projectile helps as a normal ferromagnetic projectile would just get attracted to the magnet and get stuck in the core. A way around this would be to use a IC555 timer to generate a small-timed pulse. The projectile should be placed in the core of the coil and the pulse will switch the relay for a fraction of a second which makes the coil attract the projectile towards its centre. This time period will provide initial velocity for the projectile and then before the coil starts pulling the magnet back towards the centre, it will shut down. This action will provide the projectile with an impulse force enough to fire it.
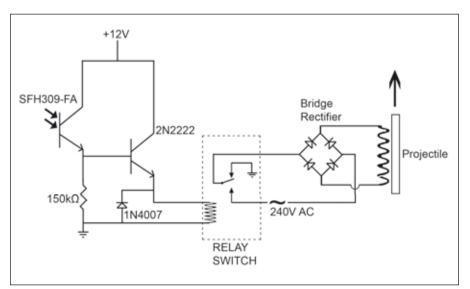
Stuff you'll need	
Remote	
Component	Attributes
Switch	Push-to-on
Resistor	510Ω
IR LED	OFL-3102/OFL-5102
Battery	1.5V AA Dry Cell
Launcher	
Component	Attributes
Power Source	12V
IR Receiver	SFH-309FA-4/BPW85C/ TEFT4300
Transistor	2N2222
Resistor	150KΩ
Solenoid Coil	Sourced from calling bell
Magnetic armature	Sourced from calling bell and modified
Diode	5 x 1N4007
Relay	Coil voltage - 12V DC, Contact voltage - 240V AC
Connecting wires	As needed

Now, you can set up the launcher to knock your boss' door every two minutes to pester him. Or you could tie a message around the projectile and shoot a message across balconies. Use your imagination! Have fun and write in with your queries. 🇩

Toolbox

Intel on top
Intel's Q3 2011 earnings have topped
$14.3 billion, which is what AMD
makes in three years

The advent of the WarTab!
A massive, touchscreen tablet, measuring 2x3
feet was showcased as a potential battlefield
assistant by AAI Corp

Crapware, irksome dialogs, motherboard woes, cranky GPU fans
We have solutions for all of them...

A hot laptop

The warranty period on my Dell Vostro A860 CoreDuo, 2GB Ram, 160 HDD – purchased on September 15, 2009 – has expired.

The LCD has two vertical and one horizontal line. Battery lasts only 10 minutes. The temperature of the PC goes upto 65°C and the fan makes horrible noise. Sometimes Laptop shuts down automatically.

I talked with Dell Customer Care. They asked me to extend warranty for one year for ₹15,000. Battery cost ₹6,500 extra. Total ₹21,500.

I simply plug in the adapter and work on the laptop. Will it harm my laptop if I remove the battery, plug in the adapter and work on my laptop?

What is the normal temperature of a laptop? Should I buy any local LCD screen which comes for 4-5 thousand?

Or should I simply buy another netbook for ₹21,500 rather than repair this laptop.
Ganga Mahto

You can still use your laptop by plugging it to a wall socket. In this case, your laptop's battery discharges similar to its charging rate, maintaining 100 per cent charge after a point. Li-Ion batteries lose their capacity by doing this, but since your battery doesn't boast great capacity as it is, there's no harm in using your laptop while it's connected to a wall socket.

65°C is definitely too hot for a laptop. Optimal temps hover around the 50°C mark. Heating issues can be solved by cleaning the laptop's innards from time to time. Take professional help if you've never opened your laptop's back panel to clean its fan, drive out dust using an air blower.

There's no point in repairing the laptop; instead, buy a new netbook. You can still utilise your laptop as a dedicated download machine or a media server.

Disabling WMS

I have a desktop PC with Windows XP SP3 32-bit system. I have a query. When I turn off my computer it shows a screen saying "WMS Idle is ending. Please Wait". How can I disable this?
Anupam Raj

WMS is a Microsoft service for media-related applications. It tends to support certain applications/ services when the computer is idle. It's a common issue with those using the Nero Suite. In your case, as you use Nero Suite 7, you might want to try this:
Go to `Start > All Programs > Nero > Tools > Nero Scout.`
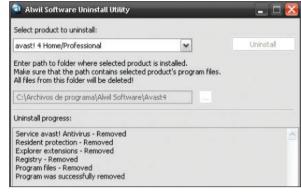
WMS Idle dialog a common issue when using Nero Suite

On this screen, Uncheck "Enable the Nero scout".
This should hopefully solve the issue.

Crapware removal

I'm having issues with my PC. I recently installed Net Protector 2011. It contains a Zero-V component. The problem is that it demands that the remnants of the Avast be completely removed from the computer, which I'm unable to do. I tried deleting it from Program Files and Add or Remove Programs but to no avail.

Avast Uninstall Utility

Please help me correct this issue as it's worrying me a lot.

Also, my PC has become quite slow. Please suggest a suitable utility to correct it.
Technical specs of my PC are as follows:
- **Year of purchase:** 2006
- **CPU:** Intel Core 2 Duo
- **RAM:** Transcend 1GB.
- **Motherboard:** Intel 946GTS.
- **OS:** Windows XP SP 2
- **Hard disk:** Seagate, SATA- 160GB.

Can upgrading to a newer OS such as Windows 7 solve the speed issues.
Mainak Ghosh

Avast can be uninstalled using the uninstall utility from Avast called aswClear. You can download it from http://bit.ly/9OJ9Hj and follow the instructions mentioned there. Try installing the new anti-virus program now. Your system specs are a little dated and you have only 1 GB of RAM. Security suites tend to use a lot of processing power while scanning. First see if the uninstalling anti-virus improves the speed. You can try to upgrade your RAM in case the system is still running slow. Upgrading to Windows 7 with 1 GB of RAM doesn't make sense

Face-controlled wheelchair
Miyazaki University has made wheelchairs controlled by the expressive muscles in one's face
http://bit.ly/nzI4Kq

Criminal use of 3D printers
3D printers are being used to produce ATM skimmers and handcuff keys en masse
http://bit.ly/mOXoLG

Q&A

as it will still run slow. A minimum 2 GB of RAM is recommended for Windows 7.

Defective GPU Fan

I'm having a problem with my graphics card (Sparkle NVIDIA GTS 450 GDDR5/1GB) which I bought two months ago. The GPU seems to working fine but its fan isn't. Sometimes, it starts automatically and sometimes it doesn't. Temperatures reach 100˚C at load and 65˚C at idle. The vendor from whom I bought this card says that this is due to my current SMPS, so I changed my SMPS from 450 watts to Cooler Master 650 watts, but the problem persists. When I asked him to repair/replace it, he said that it wasn't a big problem and the company wouldn't repair or replace it. Please tell me what I should do to sort out this problem.
My system specs:
• **Processor:** Intel Core i5 2,500k
• **RAM:** Kingston 4GB ddr3 1333 MHz
• **GPU:** Sparkle NVIDIA gts 450
• **SMPS:** Cooler Master 650 watts
• **Speakers:** Intex 5,000 watt pmpo
• **HDD:** Seagate 500 GB

Suraj Singh

There doesn't seem to be a problem with the SMPS. Most likely, the fan connector must be damaged which is causing the fan to behave erratically. You might want to get just the fan connectors checked by someone. Maybe one of the connector wires has become loose and not making proper contact, which is causing the fan to stop working.

Don't go by the vendor's assurance that it isn't a big problem. On idle, 65 degrees is a big problem. Avoid playing any games or subjecting your GPU to such high temperatures as you'll be reducing its life if it's running at those temperatures. Your system specs are quite up-to-date and it's a decent gaming rig.

Motherboard pains

One day I found that the front USB ports weren't working. I opened the case and tried different plugs. I also tried a spare USB port but couldn't get anything.

I put everything back together and now it won't boot. It'll POST and reach the Windows loading screen, then spends a minute on the moving blue bar. Then it flashes a blue Screen of Death and reboots.

I wonder if my motherboard is dying. I'll give a brief description of the machine and its recent history:

It's about a 4.5-year-old home-built machine with a couple of upgrades to RAM and graphics over time. Now it's an Athlon 64 2800 socket 754 on an MSI K8T Neo with 1.5g ddr 400 Kingston value and an agp NVIDIA 6800gs.

Recently, I was having issues with graphic lag and artifacting when playing *Warhammer* online. So, a friend of mine lent me his old case and power supply. This did the trick for the graphics issues.

But after the transplant, most of the rear ports except onboard sound and ethernet wouldn't work. So I just began using the front ports.

So now I can't boot or connect a mouse or keyboard to my PC. Any ideas? Or do I likely just need a new motherboard?

-via email

Firstly, your system is a bit old, so you can't expect it to perform wonderfully. You'll keep facing issues as components wear out over time. As regards to the USB issue, well, first of all make sure that you have the latest chipset drivers installed. If that's done and USB drives are still not visible, go to `Device Manager > Universal Serial Bus`. Uninstall all the USB ports. Don't worry, they'll be reinstalled on startup.

If this doesn't work, then disable the USB Selective Suspend by going in the regedit folder. Go to `Run > regedit`. In the regedit folder, try to find this file `HKEY_LOCAL_MACHINE\System\Current\ControlSet\Services\USB`

Update driver using the Device Manager

If the DisableSelectiveSuspend registry entry is present then select it and change the value from 0 to 1 to disable it and then click OK. Else create an entry by clicking on `Edit > New > DWORD Type DisableSelectiveSuspend` and press [Enter]. Then on the Edit Menu, click Modify and in the Value field, type 1 to disable the Selective Suspend feature and click OK.

As for the BSOD, you need to clear your CMOS and try rebooting.

If even this doesn't work, then you might have to get your motherboard checked or replaced. It is very possible that your motherboard is having power management issues.

ABOARD THE
MOTHERSHIP

Choosing the right motherboard for your system is an arduous task, specially with so many brands and chipsets to contend with. We make that task easier for you by testing over 30 boards (both Z68 and A75 chipset based)

Source: photos.com

Nimish Sawant
nimish.sawant@thinkdigit.com

"What motherboard should I buy?" is one of the most common questions our readers ask us. Within motherboards, there are so many levels to consider that without proper guidance it's very difficult to pin down a specific board.

This year saw the entry of Intel's Sandy Bridge motherboards with the P67 and H67 chipsets, which Digit com-pared back in January. The Z68 chipset was launched in May and more recently, the A75 chipset was introduced by AMD. We decided to do a shootout of boards based on these two chipsets. You can expect a similar shootout of higher end chipsets, namely AMDs 990FX (already in the market) and Intel's X79 (to be launched later this year) sometime next year. Needless to say, the Z68 and A75 are two completely different chipsets and boards housing these chipsets are not compa-rable. For this precise reason, even though we've tested both these chipsets, they should be considered as two separate com-parison tests.

Z68 Boards
₹20,000 and up

A category of boards that is over-kill for most users, but there's a definite demand for such boards. It's all about overclocking and tweaking and of course the looks. We got three boards which were priced well over ₹20,000 namely, the Gigabyte Z68X-UD7-B3, ASUS Maximus IV Extreme Z and Gigabyte G1 Sniper 2.

G1 Sniper2 is the LGA1155 iteration of the original G1 Sniper which was available on the LGA1366 socket for the X58 chipset. The packaging of the board and the board itself com-mand attention. A metallic bullet magazine acts as the heatsink for the southbridge and has a cheeky warning, "Not a weapon, cannot be assembled as a firearm." The heatsink in the centre has five LEDs that glow green when the board is powered on.

The G1 Sniper 2 has features such as an on-board BigFoot Killer E2100 NIC and Creative

Bazaar
106
Acer S3 Ultrabook, G'Five
G20 gaming phone, Microsoft
Touch Mouse 2....

Automatic OC faceoff
Tom's Hardware did a piece on automatic
overclocking and OC buttons on Mobos
http://goo.gl/7HQ4a

Motherboards Test

HOW WE TESTED

We believe that a motherboard's performance is completely a function of its components. The higher specced the components, the better the performance that you'll get. For the same chipset, the variation in performance is not very evident from our scores. The difference is within the margin of error. This can be easily understood by the fact that benchmark scores from a ₹8,000 board are quite similar to the benchmark scores from a ₹30,000 motherboard, give or take five percent.

So it ultimately boils down to the feature set you're getting with the motherboard, the build quality, ease of overclocking and other factors. Keeping this in mind, we decided to not give any weightage to the performance scores. We have run the benchmarks, and the scores are shared in the tables on the following pages. In our final evaluation though, we've not considered these scores as they don't give you an estimation of the motherboard's value.

Our Test Rig comprised of the following components:

For Intel Z68 boards
Processor: Intel Core i7-2600K
HDD: WD Velociraptor 600 GB
RAM: 2x2GB Kingston HyperX RAM
Graphics Card: ZOTAC GTX 560
Power Supply: Cooler Master GX 650W
OS: Windows 7 Ultimate x64

For AMD Boards
Processor: AMD A8-3850
HDD: WD Velociraptor 600 GB
RAM: 2x2GB Kingston HyperX RAM
Graphics Card: Integrated GPU AMD HD6550D
Power Supply: Cooler Master GX 650W
OS: Windows 7 Ultimate x64

The layout of the board was scored, we checked if there was enough spacing around the CPU region to comfortably attach the CPU cooler and which direction the SATA ports were pointing (those pointing up got a lesser score). Spacing between the RAM slots and the graphics card was checked. We also noted the spacing between PCIe and PCI slots. If a dual-slot card blocked the next PCIe slot, marks were deducted.

For build quality we noted the sturdiness of the heat sinks around the VRM (Voltage Regulator Module) regions and the southbridge. Motherboards lacking a heatsink around the VRM region got a lesser score. Boards with all solid state capacitors got a higher score. Back panel I/O ports were noted and also the option to expand USB ports. Fan connectors and SATA connections were noted.

Overclocking features such as utilities and on-board chip additions were taken into consideration. Boards having more options to overclock and tweak got a higher score. Also, the BIOS user experience was noted. Boards which didn't have a UEFI BIOS got a lower score since that's the future.

We did a thorough checking and testing (wherever applicable) of the feature set offered by a motherboard and based on the price, have decided on the winners.

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digital audio processor. It also houses on-board amplifiers to drive audio. On-board implementation of a good sound processor is impressive for most users, but hardcore audiophiles will be disappointed and will invest in a dedicated sound card anyway. There's a dedicated overclock button on the back I/O panel to overclock the processor on the fly without having to reboot the system. Display ports are naturally absent. And needless to say, it's high time Gigabyte revamped the BIOS, Touch BIOS is a gimmick and is nothing like the experience on a UEFI BIOS.

The ASUS Maximus IV Extreme Z belongs to the Republic of Gamers (RoG) series. Build Quality is top-notch with attractive crimson-black heat sinks with multiple fins around the CPU. The RoG logo glows red when the system is powered on. Eight fan-connectors on-board will ensure sufficient cooling for your system.

The Maximus IV Extreme houses an Nvidia NF200 chip which controls second and fourth PCIe16x slot, while the processor's integrated controller controls the first and third. What this means is that you can run two

Gigabyte Z68XP-UD3-iSSD

cards in SLI at x16/x16 speed (slot 2 and 4), but there isn't much of a difference between the two configurations as latency from the NF200 chip has to be taken into account. So, this shouldn't be one of the reasons for you to consider this board. For those planning on a three-way SLI setup, NF200 does help.

Nokia & NFC
Nokia launches NFC Hub to help in business development growth. **http://bit.ly/oQ0lkx**

ASUS Zenbook UX21 Teardown
Asus' latest ultra-slim laptop, the 11-inch Zenbook was taken apart to pieces. **http://bit.ly/ob2c68**

Z68 Motherboards	Under ₹10,000				₹10,000 to ₹14,000					
Brand	Biostar	ASRock	Gigabyte	ASUS	Intel	ZOTAC	ASUS	ASUS	ASUS	
Model No.	TZ68K+	Z68 Extreme3 Gen3	Z68AP-D3	P8Z68 MPro	DZ68D8	Z68 ITX A-E	P8Z68-V LE	P8Z68-V	Maximus IV GENE Z	
Price (in ₹)	7,990	8,800	9,880	9,901	10,000	10,600	10,994	13,041	13,110	
Features and Specs (Out of 70)	24.57	33.32	18.62	25.62	16.87	18.48	26.04	30.24	34.16	
Board Layout (Out of 10)	6.5	7.4	7.3	6.6	6	6	6.6	7.6	7.3	
Build Quality (Out of 15)	11.1	12.825	10.95	10.95	5.25	9.9	11.25	12.825	13.65	
Package Bundle (Out of 5)	1.2	1	1.2	1.2	0.6	1.2	1.2	1.6	1.3	
Overall (Out of 100)	43.37	54.545	38.07	44.37	28.72	35.58	45.09	52.265	56.41	
Specifications										
Max. Memory Supported (GB) / No of DIMMs	4 / 32	4 / 32	4 / 32	4 / 32	4 / 32	2 / 16	4 / 32	4 / 32	4 / 32	
No. of SATA 2 / SATA 3 / eSATA Ports	4/2/0	4/2/0	4/2/0	4/2/1	2/2/1	2/2/0	4/2/0	4/2/0	4/2/0	
No. of PCI Express x16 Graphics Slots	2	2	1	1	1	1	2	3	2	
Multi GPU (SLI/CrossFire) Support	Y/Y	Y/Y	N/Y	Y/Y	N/N	N/N	Y/Y	Y/Y	Y/Y	
Optical S/PDIF Port / LAN Port	N/1	Y/1	N/1	Y/1	N/1	Y/2	Y/1	Y/1	Y/1	
Integrated Wi-Fi (Y/N)	N	N	N	N	N	Y	N	N	N	
No. of Ports: USB 2.0/USB 3.0	2/2	4/2	4/2	4/2	6/2	4/2	4/2	6/2	8/2	
No. of Ports: FireWire / eSATA	0/0	0/1	0/0	0/1	1/1	0/0	0/0	0/1	0/2	
Display Ports DVI / VGA / HDMI / Display Port	Y/Y/Y/N	Y/Y/Y/N	N/N/Y/N	Y/Y/Y/Y	Y/N/Y/Y	N/N/Y/N	Y/Y/Y/N	Y/Y/Y/N	N/N/Y/N	
Power and Reset Buttons (Y/N)	Y	Y	N	N	N	Y	N	Y	Y	
UEFI BIOS / Lucid Virtu (Y/N)	Y/Y	Y/Y	N/Y	Y/Y	N/Y	N/N	Y/Y	Y/Y	Y/Y	
Headers: USB 2.0 / USB 3.0	3/0	4/0	3/0	5/0	4/0	2/1	4/1	3/1	2/1	
POST debug LED / Button for overclocking	N/N	Y/N	N/N	N/N	N/N	Y/N	N/N	N/N	Y/Y	
Total Fan Connectors	3	6	4	3	3	2	4	6	5	
Form Factor	ATX	ATX	ATX	MicroATX	ATX	Mini ITX	ATX	ATX	MicroATX	
Board Layout (So 10)										
Region around CPU / SATA Port Location	6.5/5	7/7	6.5/7	7/5	6.5/5	6/5	7/5	7/7.5	6.5/7	
Placement of Memory Modules	8	8	8	8	6	7	8	8	8	
Graphics Card Slot and PCI Slots	8	8	8	8	7	7	8	8	8	
Build Quality										
All Solid State Caps (Y/N)	Y	Y	Y	Y	N	Y	Y	Y	Y	
Button Build / Feedback	4/8	7/8	NA	NA	NA	4/6	NA	7/8	8/8	
VRM/Southbridge Heatsink Quality	4/5	7/7	5.5/6	5.5/6	0/5	5.5/5	5.5/7	7/7	8.5/8	
Package Bundle										
No of SATA Cables	4	2	4	4	2	4	4	4	3	
USB 3 Bracket	0	0	0	0	0	1	0	0	N	
CrossFire / SLI Bridge	0	1	0	0	0	0	0	1	1	
Performance (Only for reference)										
Cinebench R11.5 (OpenGL /CPU (all cores))	51.74/6.66	51.85/6.68	52.42/6.79	51.19/6.83	55.91/6.98	49.75/6.5	51.42/6.87	51.67/6.76	52.04/6.83	
3D Mark Overall	4150	4109	4154	4174	4178	4146	4182	4180	4179	
WinRAR 4.0 (Multi-threaded)	3503	3509	3505	3516	3687	3491	3529	3535	3515	
100 MB file Video Encoding (VOB-DivX 7) (sec)	20.28	19.35	20.79	19.42	19.39	20.52	19.52	19.6	19.51	
File Transfer (Sequential /Assorted) (MB/s)	45.7/48.5	41.2/47.2	47.5/48.5	41.2/41.2	46.8/47.5	44.8/49.1	46.2/46.2	46.38/47.1	47.3/49.2	
USB 3.0 Sequential Write/Read (MB/s)	66.1/84.8	64.8/88.1	66.7/88.3	65.6/86.5	65.6/83.5	66.5/85.4	65.4/86.6	67.1/85.5	65.1/85.5	
USB 3.0 Assorted Write/Read (MB/s)	44.7/70.2	44.8/73.7	47.4/71.4	44.4/72.2	44.6/67.5	46.9/72.7	44.4/77.7	44.8/71.8	47.6/71.6	
Game										
Resident Evil 5 (1680x1050, med)	178.2	176.2	180.2	180.2	190.8	175.4	181.2	181.9	180.2	
STALKER: COP (1680x1050, med)	164.7	164.9	165.6	163.1	164.2	163.2	163.7	164.8	165	

On-board RoG features are also quite exhaustive and give you many ways to overclock or tweak your way through. RoG Connect allows you to connect your motherboard to a notebook and tune it on the fly. With iDirect, you can do the tweaking using an iPad or even an iPhone, a decent feature to show off to your pals. A BIOS switch allows you to maintain a copy of your stable BIOS while you tinker with the other BIOS.

The Z68X-UD7-B3 is Giga-byte's flagship Z68 board and comes with the traditional bells and whistles of all UD7 boards. A black-coloured PCB densely packed with ICs provides a perfect background to the grey/golden heatsinks. All the heatsinks are connected via a heat pipe which assists in heat dissipation. Compared to G1 Sniper2, this board has a good assortment of back I/O panel ports. A dedicated Start button and POST

₹14,000 to ₹20,000								₹20,000 and up		
MSI	ASUS	ZOTAC	MSI	Gigabyte	ASUS	MSI	ASRock	Gigabyte	ASUS	Gigabyte
Z68MA-ED55	P8Z68-V Pro	Z68 ITX B-E	Z68A-GD65 B3	Z68XP-UD3-iSSD	P8Z68 Deluxe	Z68A-GD80	Z68 Extreme7 Gen 3	Z68X UD7 B3	Maximus IV Extreme Z	G1 Sniper 2
13,500	14,248	14,400	14,980	16,250	17,997	18,900	18,999	23,920	26,220	34,500
28.42	30.38	16.45	29.33	25.13	32.69	31.43	37.8	26.11	37.03	22.61
6.8	7.2	6	7.15	7.3	7.5	6.9	7.2	7.35	7.6	7.5
12.75	12.825	9.975	11.55	11.7	12.825	13.05	13.425	13.2	13.65	12.6
0.6	1.6	1.2	1.6	1.6	1.6	1.6	1.75	2	2.4	1.6
48.57	52.005	33.625	49.63	45.73	54.615	52.98	60.175	48.66	60.68	44.31
4 / 32	4 / 32	2 / 16	4 / 32	4 / 32	4 / 32	4 / 32	4 / 32	4 / 32	4 / 32	4 / 32
4/2/0	4/2/2	2/2/0	4/4/0	4/2/0	4/2/2	4/3/0	4/6/0	4/2/2	4/2/2	2/2/2
2	3	0	2	2	3	3	5	4	4	2
N/Y	Y/Y	N/N	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y
Y/1	Y/1	Y/1	Y/1	Y/1	Y/2	Y/2	Y/2	Y/2	Y/2	Y/1
N	N	Y	N	N	N	N	N	N	N	N
4/2	6/2	2/2	4/2	8/2	8/2	4/2	2/4	2/6	1/8	7/2
1/0	0/1	0/1	0/0	1/0	1/2	1/1	1/1	2/2	0/2	0/1
Y/Y/Y/N	Y/Y/Y/N	Y/N/Y/Y	Y/Y/Y/N	N/N/Y/N	N/N/N/N	Y/N/Y/N	Y/Y/Y/Y	N/N/N/N	N/N/N/N	N/N/Y/N
Y	Y	N	N	N	Y	Y	Y	Y	Y	N
Y/Y	Y/Y	N/Y	Y/Y	N/Y	Y/Y	Y/Y	Y/Y	N/N	Y/Y	N/Y
4/0	3/1	1/1	3/1	3/1	2/1	3/1	4/1	2/2	4/1	3/1
N/Y	N/N	N/N	N/Y	N/N	Y/N	N/Y	Y/N	Y/N	Y/Y	N/Y
4	6	2	5	4	5	5	6	6	8	5
MicroATX	ATX	Mini ITX	ATX	ATX	ATX	ATX	ATX	ATX	eATX	ATX
6.5/7	6/7	6/5	6.5/7	6.5/7	6.5/7.5	6.5/6	6.5/7.5	7.5/7	8/7	7.5/7
6	8	7	8	8	8	8	8	8	8	8
7	8	7	7.5	8	8	8	7	7.5	8	8
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8/8	7/8	5/6	NA	NA	7/8	8/8	7/8	8/8	8/8	NA
6.5/7	7/7	5.5/5	6.5/7	6.5/7.5	7/7	7.5/7	8.5/7.5	8/7	8.5/8	9/8
2	4	4	4	4	4	4	6	4	4	4
0	1	1	1	N	1	1	1	1	0	1
0	1	0	1	1	1	1	1	2	3	1
50.45/6.61	52.68/6.86	25.1/6.65	51.21/6.62	55.47/6.86	53.23/6.86	51.29/6.64	51.1/6.68	50.78/6.59	52.68/6.88	51.49/6.62
4174	4102	1141	4159	4134	4177	4145	4144	4134	4185	4145
3503	3370	3314	3505	3535	3529	3493	3491	3490	3544	3484
20.42	20.23	20.76	20.42	19.97	19.34	20.34	20.41	20.51	20.07	20.86
46.9/48.7	46.1/46.4	45.1/43.5	46.7/45.4	46.7/46.5	47.2/46.3	47.5/44.4	48.54/44.3	47.2/45.3	45.8/46.2	44.8/45.2
68.5/84.5	67.1/86.3	61.1/81.5	67.7/85.2	63.1/82.1	65.4/86.3	68.6/83.4	67.5/82.2	66.0/80.1	65.8/86.1	67.0/81.1
44.7/72.3	44.3/71.9	25.8/68.4	45.6/71.3	44.3/67.4	44.4/72.7	44.5/72.2	41.4/70.2	45.2/72.16	45.1/73.1	45.2/68.7
178.4	178.2	70.7	175.8	182.4	181.1	176.5	178.4	174.4	179.1	177.9
164.2	163.4	44.8	162.5	163.2	165.2	163.3	164.2	163.3	165.2	164.1

debug LED are helpful additions and so is the Gigabyte DualBIOS, which lets you keep a backup of the stable BIOS in one chip. Three-way SLI at x16/x8/x8 is possible due to the NF200 chip.

Another interesting feature is that you can use the USB 3.0 ports as charging points for USB peripheral devices even when your system is off or in standby.

The BIOS is the only sore point about this board specially when compared with the beautiful BIOS on the ASUS board. Absence of Lucid Virtu support on the board means that you won't be able to use integrated graphics for tasks such as transcoding, but then we doubt anyone would be using integrated graphics in the first place assuming you house graphics on this board.

In terms of future-proofing, all the boards have BIOSes to make them compatible with the

Superheated TVs
Sony to recall 1.6 million bravia
TV`s due to mellting components
http://engt.co/oxz1KN

Purple Roku LT
Arriving this month at a price of ₹2,500,
the Roku LT is a lite version lacking
bluetooth and a card reader

A75 Motherboards

Brand	ASUS	Gigabyte	Gigabyte	Biostar	ZOTAC	ECS	ASUS	ASUS	
Model No.	F1A75-V PRO	A75M-D2H	A75M-UD2H	TA75A+	A75ITX A-E	A75F-M	F1A75M	F1A75M Pro	
Price (in ₹)	8,648	6,370	6,591	6,800	7,990	5,000	6,704	7,100	
Specifications (Out of 70)	33.6	27.23	30.17	31.22	27.79	29.33	29.82	31.15	
Board Layout (Out of 10)	7.3	6.3	6.3	7.8	6.05	6.95	7.6	7.6	
Build Quality (Out of 20)	11.2	7.9	11.5	12.5	10	3	7.6	11.8	
Grand Total (Out of 100)	52.1	41.43	47.97	51.52	43.84	39.28	45.02	50.55	
Specifications									
Max. Memory Supported (GB) / No of DIMMs	64 / 4	32 / 2	64 / 4	64 / 4	32 / 2	64 / 4	64 / 4	64 / 4	
No. of SATA 3 ports	6	6	5	6	4	6	6	6	
No. of PCI Express x16 graphics slots	2	2	2	2	1	1	2	2	
Optical SPDIF Port / LAN Port	Y / 1	Y / 1	Y / 1	N / 1	Y / 2	Y / 1	Y / 1	Y / 1	
Integrated Wi-Fi (Y/N)	N	N	N	N	Y	N	N	N	
No. of ports: USB 2.0/USB 3.0/FireWire/eSATA	2/4/0/1	4/2/0/1	4/2/1/1	4/2/0/0	0/6/0/0	4/2/0/0	4/2/0/0	2/4/0/0	
Display Ports DVI / VGA / HDMI / Display Port	Y/Y/Y/N	Y/Y/Y/N	Y/Y/Y/ N	Y/Y/Y/N	Y/N/Y/N	Y/Y/Y/N	Y/Y/Y/N	Y/Y/Y/N	
Power and Reset Buttons (Y/N)	N	N	N	Y	N	N	N	N	
Headers: USB 3.0 / USB 2.0	1 / 4	1 / 1	1 / 2	1 / 3	1 / 2	1 / 3	1 / 3	1 / 4	
Debug LED (Y/N)	N	N	N	Y	N	N	N	N	
Fan Connectors	4	2	2	3	1	2	3	4	
Board Form factor	ATX	MicroATX	Micro ATX	ATX	Mini ITX	Micro ATX	MicroATX	Micro ATX	
Board Layout (So 10)									
Region around the CPU	7	7	7	7	6.5	6.5	6	6	
Location of SATA Ports	7	5	5	8	5	6.5	8	8	
Placement of Memory modules	8	8	8	8	7	8	8	8	
Graphics card slot and PCI slots	8	8	8	8	8	8	8	8	
Build Quality									
All Solid State Caps (Y/N)	Y	Y	Y	Y	Y	N	Y	Y	
Button build	0	0	0	4	0	0	0	0	
Button Feedback	0	0	0	7	0	0	0	0	
VRM Heatsink Quality	6	0	6	5.5	5	0	0	7	
Southbridge Heatsink Quality	6	6.5	6.5	5	5	5	6	6	
Performance									
Cinebench R11.5									
OpenGL	26.01	26.45	26.34	26.25	26.56	26.46	26.14	26.19	
CPU (All cores)	3.45	3.48	3.39	3.47	3.32	3.4	3.41	3.42	
3D Mark 11 Overall	1035	1029	1031	1017	1033	1023	1029	1024	
WinRAR 4.0 (Multi threaded)	1828	1841	1841	1828	1775	1777	1821	1764	
100 MB file Video Encoding (VOB-DivX 7) (sec)	40.07	39.04	39.43	40.22	40.53	40.59	40.28	40.08	
File Transfer Sequential / Assorted (MB/s)	43.72/41.88	44.04/42.22	45.79/43.04	46.02/44.57	46.11/41.02	44.4/43.43	45.2/45.2	41.0/41.5	
USB 3.0 Sequential Write / Read (MB/s)	62.06/77.22	62.64/77.6	63.01/77.5	63.01/76.5	64.72/77.67	62.95/79.28	66.6/78.2	65.4/77.2	
USB 3.0 Assorted Write / Read (MB/s)	25.92/62.5	23.4/62.51	26.59/59.76	24.23/57.54	40.89/61.16	40.93/62.84	41.5/62.8	40.5/61.7	
Game									
Resident Evil 5 (1680x1050, med)	43.2	42.9	42.9	42.8	41.4	42.8	42.7	42.4	
STALKER: COP (1680x1050, med)	26.6	26.4	26.4	26.2	25.6	26.1	26.1	26.2	

Ivy Bridge family of processors. But we doubt anyone would want to move from Sandy Bridge so soon. Only the G1 Sniper 2 offers PCIe 3.0 support (which has almost double the bandwidth that is offered by PCIe 2.0) thanks to the Pericom PI3PCIE switches. PCIe 3.0 standard will be supported by future graphics cards running alongside the Ivy Bridge CPUs.

Winners: ASUS Maximus IV Extreme Z won the Best Buy thanks to its overall highest score. Its feature set and overclocking options give it an edge over the competing boards.

₹14,000 to ₹20,000
Enthusiasts who don't want the bells and whistles of the RoG series or the G1 killer, will look for boards in this price bracket. We look for boards that offer a great build and important feature set, and good overclocking options.

One board that seems out of place here is the ZOTAC Z68ITX B-E. This board has an onboard NVIDIA GT 430 graphics module. Needless to say, this isn't an enthusiast board and is an ideal candidate for an HTPC setup thanks to the variety of display ports, an onboard

PlayStation 3D display coming
The $499 24-inch display will begin shipping to stores and to pre-orders on November 13

Vengeance is sweet
Corsair announced the launch of its "rigorously-screened", 8 GB RAM modules

Motherboards Test

BEST BUY digit NOVEMBER 2011

	ASUS	MSI	Gigabyte	ASRock	ASRock
	F1A75-M LE	A75MA-G55	A75-D3H	A75 Extreme6	A75 Pro4-M
	6,158	6,865	7,020	7,500	5,950
	25.13	25.62	32.2	40.04	28
	5.9	6.45	6.9	7.6	6.05
	7.6	12.4	7.9	15.1	11.2
	38.63	44.47	47	62.74	45.25
	32 / 2	64 / 4	64 / 4	64 / 4	64 / 4
	6	6	5	8	5
	2	2	2	3	2
	N / 1	N / 1	Y / 1	Y / 1	Y / 1
	N	N	N	N	N
	4/2/0/0	4/2/0/0	2/4/0/1	2/4/1/1	2/4/0/1
	Y/Y/N/N	Y/Y/Y/N	Y/Y/Y/N	Y/Y/Y/N	Y/Y/Y/N
	N	N	N	Y	N
	1 / 3	1 / 2	1 / 4	1 / 3	0 / 2
	N	N	N	Y	N
	2	3	3	6	4
	Micro ATX	Micro ATX	ATX	ATX	Micro ATX
	5	6	5	6	6.5
	5	6	7	8	5
	8	7	8	8	7
	8	8	8	8	8
	Y	Y	Y	Y	Y
	0	0	0	7	0
	0	0	0	8	0
	0	7.5	0	7	5.5
	6	6.5	6.5	6.5	6.5
	26.14	26.44	26.72	26.56	25.97
	3.45	3.45	3.43	3.45	3.45
	1026	1033	1033	1007	1008
	1771	1834	1790	1834	1834
	41.03	40.23	39.64	39.58	40.12
	45.16/44.4	46.13/44.19	47.04/46.4	45.33/45.2	45.1/45.0
	65.04/77.2	65.37/77.8	65.24/78.7	64.4/83.3	46.3/65.2
	41.45/62.1	43.68/63.43	44.1/63.44	47.53/65.4	46.3/65.2
	43.1	43.5	44.5	42.8	42.6
	26.2	26.4	26.5	25.9	25.8

ASUS Maximus IV Extreme-Z

Apart from the SSD, the board is quite similar to the Z68AP-D3. The build quality of the board is quite good with sturdy heatsinks. The PCIe slots can be used for SLI as well as CrossFire, but one of them runs at x8 speed.

ASUS has the higher-end P8Z68-V Pro and P8Z68 Deluxe (the highest-end board outside the RoG series of boards) in this segment. A major difference between the two is the absence of display ports and presence of an extra LAN port, an extra eSATA port, a FireWire port and a coaxial S/PDIF port on the Deluxe. Both the boards support dual intelligent processors such as EPU (Energy processing Unit) and TPU (Turbo V Processing Unit). There are dedicated switches to activate the EPU and TPU processors. While the EPU is meant for power saving functions, we're more interested in the TPU, as that allows you to automatically overclock your system by hitting Start on the Auto-Tune function of the Turbo V EVO utility. It's a boon to amateur overclockers and a pleasure to watch the system-atic auto-tuning. But we wonder if it interests hardcore overclockers?

Finally, coming to the MSI boards, we have the Z68A-GD80 (B3) and Z68A-GD65 (B3). The GD80 is the higher end board of the two, sporting dual LAN ports, three PCIe x16 slots, an eSATA port on the back IO panel, better quality heat sinks and an extra SATA 6 Gbps port. Build quality of both the boards is superb with military class components. The standard MSI components such as Super Ferrite Chokes (SFC), DrMOS (Driver MOSFETs) and solid state caps are all present.

Both boards support SLI and CrossFireX. The OC Genie button for overclocking-on-the-fly and the voltage probe points are interesting additions for enthusiasts. MSI also has the UEFI BIOS which will take some time getting used to if you're new to such kind of BIOSes. MSI Control centre is the utility that allows you to overclock your system, run it at lower power settings with the Green Power tab and monitor CPU

EDITOR'S PICK digit NOVEMBER 2011

ASRock Z68-Extreme7-Gen3

Wi-Fi adapter and an onboard graphics card. Its priced higher considering it houses SO DIMM slots, which has costlier laptop RAM modules.

Gigabyte Z68XP-UD3-iSSD, is the only motherboard with an on-board SLC SSD drive connected to an mSATA port just below the CPU socket. The Intel 20 GB SSD is ideal for users who'll be using the Intel Rapid Storage Technology. You can use it in the Enhanced Mode which writes data to both SSD and HDD ie. mirroring and the maximised mode, which only writes to the cache memory (SSD).

Tried & tested

Cabs of the future
James Brighton drove the World's first
RC cabs, a classic old English Taxi

Down with the 3DS
Nintendo dropped the price of
the 3DS from ₹12,400 to ₹8,436

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ASUS P8Z68-V Pro

operation, temperatures and voltages among other things.

ASRock Z68 Extreme7 Gen3 is the only Gen3 board we received which indicates support for future Ivy Bridge processors, although you can get a present generation board to support Ivy Bridge with a BIOS update. What you won't get however, is PCIe 3.0 chips, which will be the standard for future graphics cards. Gigabyte G1 Sniper2 is the only other board having PCIe 3.0 support. As of now you don't have any card which can exploit PCIe 3.0 speeds, but makes sense if you want to future-proof your system.

It's packed to the gills with features. The 10 SATA ports on the board will ensure you never run out of space to add more drives to your rig. There are also enough PCIe slots and an NVIDIA NF200 chip for you to run a three-way SLI setup. If you're using a single graphics card, you need to lodge it in the second PCIe slot from the CPU to get an x16 speed. Build quality is brilliant with sturdy heatsinks on the VRMs as well as the southbridge, it is one great looking board.

Winners: ASUS P8Z68-V Pro won the Best Buy as it offers most of the features, seen on the higher end P8Z68 Deluxe, at a very attractive price. ASRock Z68 Extreme7 Gen3 was awarded the Editor's Pick for

its plethora of features (which are equivalent to the ₹20,000 and up category of boards) and connectivity options. Another board which we found interesting even though it's not a winner, is the Gigabyte Z68XP-UD3-iSSD, specially for those who want to exploit the Intel RST feature.

₹10,000 to ₹14,000

This category has an assortment of boards that are quite distinct from each other. You get three form factors here: ATX, Micro ATX and Mini ITX.

Let's start off with the least attractive of the boards, the Intel DZ68DB. We call it the least interesting because it can't hold a candle to the aesthetics, build quality and feature set of the competing boards. There's a lot of free PCB space on the lower side making us wonder if it really had to be an ATX form factor board. Plus, it has a mixture of electrolytic and solid state caps while its competitors feature all-solid state caps. Pricing for such a basic board being ₹10,000 just does not make any sense.

ZOTAC Z68ITX A-E is the only mini ITX board in this category and a very interesting one at that. Lodge a high-end CPU in it, and the board functions like any other board. It has a decent feature set such as an on-board Wi-Fi adapter, POST

debug LED and a full PCIe x16 slot. The back panel IO is flush with connectivity options and makes for a perfect HTPC board. It has dual LAN port, dual HDMI ports and 8-channel audio out. The only unappealing part is the upward pointing SATA ports. With a heatsink and all other components, the board will be densely populated, in this case upward pointing SATA ports are just not ideal for efficient wire management. The ZOTAC bundles two Wi-Fi antennas, a USB 3.0 bracket, an 8-pin power connector to ease the connection to the on-board power connector and a mini DP-DP adapter. Don't expect much in terms of overclocking as there are limited options as compared to higher end boards. The Mini PCIe adapter can also function as an mSATA port in case you want to add an on-board SSD for RST in the future.

ASUS P8Z68-V and P8Z68-V LE belong to the same line of boards, but LE is a slightly stripped down version of the higher end V, which itself is slightly low on the specs when compared with V Pro and Deluxe. The P8Z68-V has an extra PCIe slot, much better heat-sinks over the VRMs, an extra PCI slot and an eSATA port over the P8Z68-V LE. The extra PCIe slot is ideal for gamers who want dual GPU gaming as it allows an x8/x8 con-

figuration as opposed to x16/x4 on the P8Z68-V LE.

The other ASUS board in this segment is the RoG Maximus IV Gene Z. It comes in the micro ATX form factor and to have a RoG feature set in this form factor is quite impressive. It lacks features such as RoG iDirect, RC Bluetooth, PCIe switches and USB BIOS Flashback, but for the price point, it's packed with quite a lot of features such as RoG Connect, ProbeIt and SupremeFX X-Fi2 audio solution among others. There's a POST debug LED and an HDMI out. Build quality is similar to the higher end RoG board with sturdy heatsinks. Gamers can game with a single x16 or a dual x8/x8 configuration. We would have liked to see more USB 3.0 ports on the back panel though. Overclocking options are easily accessible thanks to the well designed ASUS UEFI BIOS. So in a way, those who can't afford the higher end Extreme Z (which is overkill for most regular users) but still want the RoG feature set and dual GPU gaming, the Gene Z makes for a great choice.

Coming to the MSI Z68MA-ED55 (B3) board, you get a well laid out board with the Military Class II branding on the sturdy heatsinks. Beside the OC Genie button you have a little buzzer speaker and probe points to check voltages manually using the con-

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ASUS Maximus IV Gene-Z

Touch the world!
Microsoft launches technology which can turn any surface into a touchscreen
http://cnet.co/mQgZL3

Empower yourself
Researchers have developed biofuel cells that can use our own body's glucose to generate electricity.
http://cnet.co/qSJbtR

Motherboards Test

Contact sheet

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AsRock	Jupiter International	+91-9830031901	info@asrock.com.tw	www.asrock.com
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Biostar	Abacus Peripherals Pvt.Ltd.	1800 22 1988	enquiry@abacusperipherals.com	www.abacusperipherals.com
ECS	Rashi Peripherals Pvt Ltd	91 22 4047 0828	response@rptechindia.com	www.reptechindia.com
Gigabyte	GIGABYTE Technology India Pvt. Ltd.	91-22-40633218	anilkumarr@gigabyte.in	www.gigabyte.in
Intel	Intel	080-28542105	sasupport@mailbox.intel.com	www.intel.com
MSI	MSI India	1800 200000 4	marketingindia@msi.com	http://in.msi.com
Zotac	Neoteric Informatique Ltd.	+91-9891282522	tarun.kalra@neoteric.co.in	www.zotac.com

nectors bundled along with the board. It only supports CrossFire at x8/x8 configuration. The BIOS menu of the MSI board is quite attractive to look at. If you leave aside the proprietary RoG features, this board is comparable to the Maximus IV Gene Z. There are more display ports (DVI and VGA) on the MSI board. Pricing wise the ASUS board is ₹400 cheaper, so it's anyone's guess which is a better option.

If you plan to use graphics cards on all the slots then you'll lose access to USB headers and power/reset buttons in the MSI Z68MA ED55 board and in the ASUS P8Z68-V board as a dual slot card will cover these ports.

Winner: ASUS Maximus IV Gene Z was awarded the Best Buy for the simple reason that you're getting all the goodness of a high end gaming board in a micro ATX form factor. The pricing may seem high for a micro ATX board, but if you do plan to pursue gaming or overclocking, there is no better choice in this range. For normal users, the ASUS P8Z68V-LE makes sense.

Under ₹10,000

We got just four sub ₹10,000 boards here, including the Biostar TZ68K+, Gigabyte Z68AP D3, ASRock Z68 Extreme3 Gen3 and ASUS P8Z68-M Pro, which shows that Z68 boards aren't cheap.

ASRock Z68 Extreme3 Gen3

Biostar TZ68K+ makes for a good entry-level Z68 motherboard but the surprisingly limited connectivity options on the back panel I/O will leave many of you disappointed. There are only two USB ports on the back panel and the absence of a USB 3.0 header means that you

can't add more USB 3.0 ports, which is just sad. The UEFI BIOS of Biostar board is quite easy to operate although it's not as good looking as the one found on ASUS or MSI boards. A very interesting addition to the Biostar board is the BIO-

Remote 2, which is basically an Android and iPhone application that lets you control your PC with your cellphone. You can use your phone as a remote control, as a mouse, to overclock your system or update the BIOS of your system remotely. Quite impressive at sub-₹10,000.

ASUS P8Z68-M Pro is a compact board with as many as five USB 2.0 headers, five SATA ports and features such as iGPU Boost (which over-clocks the integrated GPU with an on-board switch) and MemOK button. Although there are two PCIe x16 slots, only one of them is true x16 whereas the other is locked to run at x4. The heatsink quality is strictly OK as compared to ones seen on higher end boards, but it's much better than the Biostar one.

Gigabyte Z68AP D3 includes a unique feature in the form of an mSATA connector on which you can lodge a solid state drive. Another aspect that stands out on this board is the presence of serial and parallel ports on the back panel IO. Now these ports are rarely used in a home environment, so it makes us wonder if Gigabyte is targeting this board at SOHO set-ups. But the presence of an HDMI port is reassuring. The mSATA connector allows you to populate the board with your choice of SSD. Setting up the Rapid Storage Transport technology using Gigabyte's EZ Smart Response utility is a breeze. Don't expect extreme levels of overclocking on this board though.

The build quality of the Gigabyte and ASUS boards is better than the Biostar boards.

ASRock Z68 Extreme3 Gen3 has good styling, which reminds you of its elder brother

Tried & tested

Google buzz

End of Google Buzz
Google has announced the closure of
Google Buzz to welcome Google+
http://bit.ly/qqofSx

ASUS Swap
ASUS has started a "swap" service
for its UAE customers where they can
swap defective parts

- the Extreme7. The heatsinks are quite sturdy and it houses a POST debug LED as well as power/reset switches for over-clockers. However, it has fewer SATA ports, USB 3.0 ports and one less LAN port as compared to the Extreme7. Still, for its pricing, the board is quite feature-rich. Build quality is great, it uses solid state caps and has a UEFI BIOS. It lacks a USB 3.0 header, but no other board in this category has it either. One interesting aspect is that it has a provision for coolers of both, the Socket LGA 1155 as well as the LGA 775, there's a very thin gap between them, be extra careful while installing a high-end cooler.

Winner: ASRock proved its mettle yet again, when it bagged the Best Buy award for ASRock Z68 Extreme3 Gen3.

A75 boards

AMD introduced its Fusion desktop APU in the form of Llano and along with it, the A75 chipset-based motherboards. The A75 chipset supports 10 USB 2.0 ports, 4 USB 3.0 ports, 2 USB 1.1 ports (we think it's a waste) and 4 PCIe Gen 2 slots among other things. The boards based on this chipset are priced economically as the APU that we used (A8-3850) is targetted at mainstream users. The quad core Llano APU houses the AMD HD 6550D GPU, which is based on the Redwood architecture and has 400 stream processing units.

itive as far as the A75 boards is concerned, as performance is a function of the components being used. Culling the best mother-boards for the price is quite a task

Let's start off with ASUS as it sent the maximum number of boards, namely: F1A75-M LE, F1A75M, F1 A75M Pro and F1A75 V Pro. As is obvious from the naming convention, the LE is a lower-end board, whereas the Pro boards are high-end. All the boards except the F1A75-V Pro have micro ATX form factor. Apart from that, the V Pro has an additional SATA 6 Gbps port, more PCI and PCIe x1 slots, an eSATA port and a Display-Port on the back IO panel and a better heatsink with connecting heat-pipe. The F1A75 M LE and F1A75 M both have only two USB 3.0 ports. The LE board has only two DIMM RAM slots and lacks a HDMI port. Its SATA ports point upwards not sideways—a big turn off for wire management.

The F1A75-V Pro has better heatsinks than other ASUS boards; the F1A75M, F1A75M LE don't have heatsink over the VRMs.

Biostar TA75A+ is a feature-rich board but we would have liked to see some more USB 3.0 ports and a better heat-sink design for the south bridge. Looking at the layout, one gets the feel that this board could have been a micro ATX one as 2 PCI and 2 PCIe x1 slots seem a lot. The POST debug LED is a great addi-

and includes a dedicated sec-tion for overclocking, but is not as exhaustive or as good looking as the MSI or ASUS BIOS. The heatsink quality is quite bad. The BIO Remote is a nice feature to show off to your friends. It allows you to control your system, play back media files and even over-clock over the air using the Bio remote app on your iPhone or Android device. Thankfully all the SATA ports point outwards.

The ECS A75F-M, is an inter-esting board especially consid-ering its pricing. The board comes in the microATX form factor and has bare minimum features. Cost cutting on the board is evident - absence of a dedicated heat sink around the VRMs, use of electro-lytic capacitors, upward facing SATA ports, and two USB 3.0 drives. It sports a UEFI BIOS with both the EZ and Advanced mode. The USB 3.0 charger helps in charging peripheral devices in as many as five states: working, standby, suspend to RAM, etc.

The MSI A75MA-G55, is an impressive board having a military class certification. So, expect rock-solid build quality on the board. You get the option to overclock the processor as well as the integrated graphics in an incremental manner. Of the six SATA ports on board, two of them point upward, which can be problematic if you want to install a graphics card in the second slot.

Gigabyte had three boards competing in this category: A75M-D2H, A75M-UD2H and A75-D3H. The A75M-D2H is an entry-level board with only two RAM slots and two USB 3.0 ports. The UD2H has four DIMM slots but a much more populated back IO panel, which includes an eSATA port as well as a FireWire port. All the display ports such as HDMI, DVI, VGA and DP are present on the UD2H. Both, the D2H and UD2H are micro

ATX form factor boards. The A75-D3H is an ATX form factor board having all four USB 3.0 ports on the back IO panel and an option to add two more with the USB 3.0 header. Three PCI slots do seem like a lot and the second PCIe x16 slot runs at x4 speed. A heatsink around the VRM region is absent and there is one SATA port pointing upwards. All the Gigabyte boards feature the pro-prietary DualBIOS chips which allows you to maintain a backup of the last stable BIOS on one chip, while you tweak the active BIOS. Gigabyte BIOS is still the old generation one and it's a real pity to have such good boards anf not have them running the latest UEFI BIOS.

ASRock sent us two boards, the A75 Extreme 6 and A75 Pro4-M. The former is it's flagship A75 board and the latter is a mid-range board. The Extreme 6 comes with good features including eight SATA 3 ports, POST debug LED, start/reset buttons and three PCIe slots among other things. Build quality is very sturdy. The Pro4-M is the lower-end model with no USB 3.0 header, two less USB 3.0 ports and SATA ports pointing upwards (which we know by now is not desirable). Both these boards support the UEFI BIOS.

Winner: In case of the A75 boards the pricing was very close, so we decided to just award one board. ASRock A75 Extreme 6 won the Best Buy award. Its fea-tures were neck-to-neck with the ASUS F1A75 V Pro, but the Extreme 6 had better build quality, dedicated power/reset buttons and a slightly better board layout. Also, features such as a dedicated power/reset button and a POST debug LED gave the Extreme 6 a push in the right direction.

If you don't intend to spend that much, you can go for the ECS A75F-M. The other good board is the Gigabyte A75M-UD2H.

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ASRock A75 Extreme6

Google Earth fights Typhoid
Google Earth helps researchers to reveal Typhoid outbreak secrets in places where health workers are restricted
http://bit.ly/pNYqMo

LG to catch up on rivals
LG ELECTRONICS have announced the arrivals of ultra high speed Smartphone base on 4G wireless technology

HD Media Players Test

ARE YOU HD-ed YET?

Get ready to abate your thirst for HD content. We have an HD media player for each one of you, read on to find which one you should pick.

Aniruddh Subramanian
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An HD media player upscales your media content to 1080p but while doing so it doesn't add any detail to the video, rather it works to remove the artifacts that become visible when the image is resized.

Ultra-compact
Four players fought it out in this category, one each from Amkette, ASUS, Buffalo and iOmega.

Build and design
Cased with an aluminum exterior, the iOmega Screenplay TV Link MX player completely stood out in terms of build quality, whilst Amekette Flash TV HD and ASUS O! Play Mini both have very plasticky build quality and felt hollow. The Amkette Flash TV HD has a unique disc shaped form factor. The Buffalo Link Theatre has a good sturdy build but is encased with a glossy exterior which makes it smudge and scratch prone.

User interface
The UI on the O! Play Mini is very straightforward and simple to use, but looks outdated. Disappointingly the player lacks a search option. The UI on the iOmega is no different, simple but boring. The iOmega further fails to automatically compile all the data under each media, lacks jump to next tack option for music and the "Go To" feature that allows you to jump to a specific part of the video. On the other hand, the Amkette Flash TV HD despite having a simple UI, it automatically complies all the media in each section and has a search option. The Buffalo

Link Theatre has the least visually appealing UI. This makes it difficult to use but it still gives a zippy performance.

Remote
All the media players come with very basic remotes. The Amkette media player's remote is sleek and compact but has a plasticky build, the cost cutting is very evident. The iOmega has the best remote of the lot in terms of build quality and key response. The remote bundled with Buffalo Link Theatre has a decent built quality and a good key response.

Performance
The Amkette and iOmega delivered poor performance with darker scenes, while the ASUS did comparatively better. Amkette and iOmega managed to give crisp and sharp images while ASUS lagged behind. The Buffalo managed to deliver high quality upscaling. Overall

we don't have any complaints, at this price point it's really amazing how these compact players deliver good upscaling.

Winner
With decent upscaling performance, a plethora of format support, while being easy on your pocket we award Amekette Flash TV HD the best buy.

Mid-range
There were seven contenders in this price bracket. We received four players from ASUS and one each from iOmega, Seagate and WD.

Build and design
ASUS O! Play HDP R1 and ASUS O! Play Air have an almost identical design, a book shaped form factor. Both the players have a sturdy build quality. Both have a glossy side strip that is prone to fingerprints and scratches. The ASUS HD 2 has a firm build but has a very odd design with a glossy sheet on the top,

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Amkette Flash TV HD

Brand	Amkette	ASUS	ASUS	Buffalo	iOmega	WD
Model	Flash TV HD Media Player	O! Play Mini	O! Play HDP - R1	Link Theatre	ScreenPlay TV Link MX	TV Live
Actual Price (₹)	3,995	4,165	5,465	5,000	4,999	6,499
Price with 1TB (₹)	7,495	7,665	8,965	8,500	8,499	9,999
Connectivity (On 100)	34	35	42	45	28	37
File format support (On 100)	88	80	79	77	85	82
Performance (On 100)	65.39	66.19	71.26	66.37	63.53	63.61
Build Quality (On 100)	61.5	60	64	68	75	60
Grand Total (Out of 100)	56.83	55.58	64.71	55.9	55.26	56.74
Connectivity and Storage						
CF/SD/MMC/MS/MS-Duo	N/Y/Y/Y/N	N/Y/Y/Y/N	N/N/N/N/N	N/N/N/N/N	N/N/N/N/N	N/N/N/N/N
USB 2.0/USB 3.0/eSata	Y/Y/Y	Y/N/Y	Y/N/N	Y/N/N	Y/N/N	Y/N/N
Ethernet/Wi-Fi	N/N	N/N	Y/N	Y/N	N/N	N/N
DLNA Support	No	No	No	Yes	No	Yes
HDMI/HDMI 1.4a	Y/N	Y/N	Y/N	Y/NA	Y/NA	Y/N
Component output/Analog A/V output	Y/N	N/Y	N/Y	N/Y	N/Y	Y/Y
Optical/Coaxial	N/Y	Y/N	Y/N	Y/Y	N/Y	Y/N
Form Factor	NA	NA	NA	NA	NA	NA
Capacity	NA	NA	NA	NA	NA	NA
NAS support	No	No	Yes	No	No	NA
Max Resolution Supported	1080p	1080p	1080p	1080p	1080p	1080p
File format support						
AVI/MKV/FLV/MOV	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y
DAT/ISO/MP4/MPG	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	N/Y/Y/Y	N/Y/Y/N	N/N/Y/Y
RMVB/VOB/WMV	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	N/Y/Y
H.264/H.264 level 4.1/x.264/DivX/AVC	Y/Y/N/Y/N	Y/N/N/N/N	Y/N/N/N/N	Y/N/Y/N/N	Y/N/Y/N/N	Y/Y/N/Y/Y
VC-1/WMV9/MPEG/XVID	Y/Y/Y/Y	Y/N/Y/Y	Y/N/Y/Y	Y/Y/Y/Y	N/N/Y/Y	Y/Y/Y/Y
MP3/AAC/M4a/OGG	Y/Y/N/Y	Y/Y/N/Y	Y/Y/N/Y	Y/Y/N/Y	Y/Y/Y/Y	Y/Y/N/Y
WMA/RMVB/AC3	Y/N/N	N/N/Y	N/N/Y	Y/N/Y	Y/N/Y	Y/N/N
SRT/SUB/SMI	Y/Y/Y	Y/Y/Y	Y/Y/Y	NA/NA/NA	Y/Y/Y	Y/Y/Y
SSA/ASS/TXT	Y/Y/N	Y/Y/Y	Y/N/Y	NA/NA/NA	Y/N/Y	Y/Y/N
Picture Formats Support						
BMP/GIF/JPEG/PNG/TIFF	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y
File System Support						
FAT 32/NTFS	Y/Y	Y/Y	Y/Y	NA/Y	Y/Y	NA/Y
Web Features						
No. of Feeds	NA	NA	8	NA	NA	3
YouTube/Picassa/Flickr/Facebook/Twitter	NA	NA	N/Y/Y/Y/N	NA	NA	Y/N/Y/N/N
Performance						
USB read time (sec)	23.52	13	10.52	9	11.32	7
HDD read time (sec)	99.5	32.03	13.2	11.96	10	8
Startup time (sec)	13.2	11.85	10.37	26.54	18.4	35.42
Movie load time (sec)	4.7	3.9	3	5.83	3.68	4
Forward/Rewind Speed	32x	32x	32x	32x	8x	16x
Seeking	7.5	7	8	7	5	6
AVI 480p	6	6	6.875	6.5	5.625	5.875
MKV (720p)	6.875	6	6.575	6.625	7	5.75
MKV (1080p)	5.75	6.25	6.675	6.25	6	5.75
Video skipping (480p/720p/1080p)	No	No	No	No	No	No
Miscellaneous						
Bundled Cables	Component Cable, Power Adapter	Composite, HDMI, Power	Power	Composite Cable, Power	Composite, Analog	Power
Dimensions (W x D x H)(mm)	120 X 120 X 18mm	151.85 x 106.7 x 29.03 mm	181 x 125.3 x 47.7 mm	146 x 35 x 122 mm	110 x 103 x 20 mm	NA
Weight (Kg)	NA	175 g	491 g	320 g	177 g	NA
Build Quality and Ease of use						
Body	6.5	6	7	7	8	6
Remote	5	6	6	7	7	6
Remote Buttons	7	6	5.5	6	7	6
Player Setup	8	8	8	8	8	8
Remote Usage	7	6	6	6	7	5

ASUS	ASUS	ASUS	Seagate	iOmega	iOmega	WD	ASUS	iOmega
HDP - R3 - O! Play Air	O! Play Mini Plus	O!Play HD 2	Go Flex TV	Screenplay TV Link Dx	ScreenPlay MX 1TB	TV Live Hub 1TB	O! Play Gallery	ScreenPlay DX 1TB
6,699	7,949	8,099	8,750	8,999	9,999	11,990	12,999	12,999
10,199	11,449	10,849	12,250	12,499	9,999	11,990	15,749	12,999
65	53	67.6	43	50	46.2	57.3	68.6	63.2
83	79	81	76	86	85	82	79	86
64.85	68.89	61.7	56.84	64.58	61.09	68.6	64.58	63.13
64	68	66.5	65	70.5	76.5	74	67.5	73
61.59	68.78	64.72	56.84	68.86	58.05	68.2	66.63	70.99
Y/Y/Y/Y/Y	N/Y/Y/Y/N	Y/Y/Y/Y/Y	N/N/N/N/N	N/N/N/N/N	N/N/N/N/N	N/N/N/N/N	Y/Y/Y/Y/Y	N/N/N/N/N
Y/N/N	Y/N/Y	Y/N/N	Y/N/N	Y/N/N	Y/N/Y	Y/N/N	Y/Y/Y	Y/N/N
Y/Y	Y/Y	Y/N	Y/N	Y/Y	N/N	Y/N	Y/Y	Y/N
Yes	No	Yes	No	Yes	No	Yes	No	Yes
Y/N	Y/N	Y/N	Y/N	Y/NA	Y/NA	Y/NA	Y/NA	Y/NA
N/Y	N/Y	Y/Y	Y/Y	N/Y	Y/Y	Y/Y	N/N	Y/Y
Y/Y	Y/N	Y/Y	Y/N	Y/N	N/Y	Y/N	Y/Y	Y/Y
NA	NA	3.5 inch	NA	NA	3.5 inch	2.5 inch	3.5	3.5 inch
NA	NA	NA	NA	NA	1TB	1 TB	NA	1 TB
No	Na	Yes	Yes	NA	No	Yes	NA	No
1080p	1080p	1080p	1080p	1080p	1080p	1080p	1080p	1080p
Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y
Y/N/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	N/Y/N/N	N/Y/Y/N	N/Y/Y/N	N/N/Y/Y	Y/Y/Y/Y	N/Y/Y/N
Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	N/Y/Y	Y/Y/Y	Y/Y/Y
Y/N/N/Y/N	Y/N/N/N/N	Y/N/N/N/NA	Y/N/Y/Y/N	Y/N/Y/Y/N	Y/N/Y/Y/N	Y/Y/N/Y/Y	Y/N/N/N/N	Y/N/Y/Y/N
Y/N/Y/Y	Y/N/Y/Y	Y/N/Y/Y	Y/Y/N/Y	Y/N/Y/Y	N/N/Y/Y	Y/Y/Y/Y	Y/N/Y/Y	Y/N/Y/Y
Y/Y/N/Y	Y/Y/N/Y	Y/Y/N/Y	Y/Y/N/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/N/Y	Y/Y/N/Y	Y/Y/Y/Y
N/Y/Y	N/N/Y	N/Y/Y	Y/N/N	Y/N/Y	Y/N/Y	Y/N/N	N/N/Y	Y/N/Y
Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y	Y/Y/Y
Y/N/Y	Y/N/Y	Y/N/Y	N/N/N	Y/N/N	Y/N/N	Y/Y/N	Y/N/Y	Y/N/N
Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y	Y/Y/Y/Y
Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y	NA/Y	Y/Y	Y/Y
NA	11	8	9	21	NA	9	6	20
NA	Y/Y/Y/Y/N	N/Y/Y/N/N	Y/Y/Y/N/N	Y/Y/Y/Y/Y	NA	Y/N/Y/Y/N	Y/Y/Y/N/N	Y/Y/Y/Y/Y
9.17	14	23.97	43.2	4.42	7	30.41	9.3	8.42
13.56	30.12	19.52	55.7	9.38	8.26	31.35	9.52	11.71
17.88	25.23	16.6	23	43.09	51.48	58.26	35	44.42
5.72	6.32	3	7.57	3.71	5.52	4.52	4	5.55
32x	32x	32x	32x	32x	8x	16x	32x	32x
7	8	6	6	5	5	8	5	5.5
5.75	6.5	5.75	5.75	6	5.875	6.75	6.25	6.125
5.875	7.25	5.5	5.25	5.75	6.25	7.875	6	6.25
6.5	7.25	5.625	5.75	5.875	5.75	7.5	6.5	6.125
No	N/N/N	N/N/N	N/N/N	N/N/N	N/N/N	N/N/N	N/N/N	N/N/N
Power	HDMI	Analog cable, Component	Composite, Component	Composite, HDMI	USB A to B, Power Cable	Power	HDMI, Power, iPod Conn	Wi-Fi Adapter, USB A to B
181 x 125.3 x 47.7 mm	151.85 x 106.7 x 29.03 mm	230 x 178 x 60.5 mm	110 x 150 x 42 mm	175 x 110 x 30mm	177 x 133 x41 mm	NA	230 x 178 x 60.5 mm	203 x 156 x 47 mm
479 g	175 g	730 g	304 g	295 g	998 g	NA	720 g	1027 g
7	7.5	7	7	7.5	8	8	7	8
6	6.5	6.5	6	7	7.5	7	6.5	7
5.5	5.5	6	6	6	7	6.5	6.5	6
8	8	8	7	8	8	8	8	8
6	7	6	6	7	7	7	7	7

Tried & tested

DivX HD enabled Blu-ray Player
Rovi and ASUS are working to launch DivX HD-enabled Blu-Ray devices

Student's experiment in space
YouTube, Lenovo and NASA have come together to launch Youtube Space Lab for students between 14 to 18 years

which is very dust,scratch and fingerprint prone. As a consolation the front panel runs a LED strip which makes it a bit attractive and the bottom opens to house a 3.5-inch HDD. The ASUS O! Play Mini Plus has the same form factor and built as its predecessor the O! Play Mini, but this time with a very jazzy honeycomb like design on the top surface. The iOmega Screen-Play TV Link Dx has a rectan-

ASUS O! Play HDP R1

gular form factor with eye-catching curves and decent built quality, but it too has a glossy exterior that picks up smudges and scratches. The Seagate Go Flex TV and WD Live TV are the compact form factor players of the lot. While both have durable build, the Seagate breaks the cliché by having a matte exterior. Seagate's front panel opens to house a 2.5-inch HDD, but the housing is well disguised.

Remote
iOmega stands out with its QWERTY keypad packed remote design. Though it

requires you to use both your hands to operate it, it helps make typing easy during searches or web browsing. What it lacks is a good key response and we would have liked if the keys were a bit bigger. The left D-pad which controls the fast forwarding/rewinding was a tad bit sensitive, which resulted in over fast forwarding/rewinding. The ASUS HDP R1 and Air both get identical remotes. It is very comfortable to hold and is well built. The key feedback is also quite good. What we find amusing is only music media finds a dedicated key on remote. The ASUS HD2 and Mini Plus both get remotes with identical form factor, what differs is the placement, shape, size and count of keys. Mini Plus also gets an one touch Facebook share option and four colour keys for accessing media. Both remotes have a durable build and provide adequate key feedback.

User interface
The ASUS HDP R1 and Air both run on the same UI, it is a simple and easy to use interface. It segregates files according to the type of media it belongs to. It has a UI which imitates a File Explorer for mapping connected devices(viz. Pendrive, HDD), which makes it difficult to search for a particular file incase you have a huge collec-

tion. The HD 2 on the other hand gets the upgrade from its previous UI and gets a different look. The UI now looks much better, more importantly the device now catalogs all kinds of media as opposed to cataloging only music media. The WD TV Live Hub has the best UI, it is very rich in terms of looks and is extremely easy to use. The iOmega has a XMB style UI, which is extremely easy to use but the aesthetics are not meant to impress.

Performance
The ASUS HDP R1 completely blew us away with its performance in terms of sharpness and detailing but disappointed us with its colour reproduction and it failed in playing certain .flv files even though it claimed to support the format. On the other hand the ASUS Air gave good colour reproduction but lacked sharpness and crispness. The WD Live TV and iOmega Link DX delivered decent performance with upconverting of files but lacked at certain places. The HD 2 delivered a poor performance, we noticed a lot of noise and colour banding even after upscaling. It also failed to recognise a few of the .flv files we tried during the test. Of the lot the ASUS O! Play Mini Plus delivered good overall performance. We faced a lot of problems with the Seagate Go Flex TV viz. if the player was left idle for a while, it hanged. The rewind was at times faulty with the video directly going back to the starting point.

Winner
For its excellent upscaling ability, crisp and sharp videos and topping our performance charts the ASUS

O! Play HDP R1 won the Best Performer. Further, for being offered at a very competitive price it also wins our Best Buy award.

High-end
We had four players in this category. We received two devices from iOmega and one each from ASUS and Western Digital.

Build and design
The WD TV Live Hub media center comes as an update to the WD Live TV and sports a slimmer form factor and isn't quite heavy inspite of the presence of a 1 TB HDD. The device is extremely well built and sturdy. The player has a metallic matte finish on the top, whilst a glossy strip runs on the sides. The ASUS O! Play Gallery entirely borrows its design and built from the ASUS HD 2, while adding iPod and iPhone connectivity. It too houses a 3.5 inch HDD slot at the bottom. iOmega Screenplay DX 1 TB is an oversized version of the iOmega TV link DX with an inbuilt 1 TB HDD. The 1 TB HDD makes the media player quite bulky. The device is absolutely rock solid in terms of its build. On the other hand, the iOmega Screenplay MX 1 TB looks like a super-sized iOmega TV link Mx with a few more curves. It also gets an inbuilt 1 TB HDD, which makes it quite bulky. The Screen Play MX too is cased in an aluminum exterior and by far has the best build quality.

Remote
The remote bundled with WD Live TV Hub is well built and gives adequate key feedback. The remote comes with four colour keys that can be customised to access certain media. The iOmega Screenplay MX gets the same remote as the iOmega TV link MX. Though the remote is

Contact sheet			
Brand	**Phone no**	**E-mail**	**Website**
WD	+91 9769 9551 75	Anil.Kukreja@wdc.com	www.wdc.com
Amkette	+91 11 2638 9876	info@amkette.com	www.amkette.com
Iomega	+1800 180 2237	indiasales@iomega.com	www.iomega.com
Seagate	+91 11 2641 4468	Sales@fortune-it.com	www.seagate.com
ASUS	+1800 209 0365	reachus@ASUS.com	www.ASUS.in
Buffalo	+91 11 4153 8059	info-india@melcoinc.co.jp	www.buffalotech.com
ASUS	+18002090365	reachus@ASUS.com	www.ASUS.in
AsRock	+91-9830031901	info@asrock.com.tw	www.asrock.com

Easy music for IOS mobiles
Sonma Guitar jack 2 for IOS device lets you connect any
instrument with ease and even help you record songs
http://bit.ly/mSvpGq

TAG Heuer Chronograph
It works with the concept of Mikrotimer Flyings 1000`swatch
movement that runs at 500 Hz.It has a precession of 3.6
millions beats each hour and cost's ₹5,045,680

HD Media Players Test

iOmega Screenplay DX 1TB

NOVEMBER 2011

it gets the same XMB style interface, which is quite easy to use but completely lacks in aesthetics. Finally, the ASUS O! Play Gallery gets the same UI as the HD2.

extremely easy to use and well built, but its disappointing to find that a high end player has the same remote as a basic player. The iOmega Screenplay DX 1 TB gets the same remote as the iOmega Link TV DX, which means you get the same QWERTY keypad remote. The ASUS O! Play Gallery gets a remote with click-wheel. The click wheel helps in easier navigation but is not very accurate. The keys have good key response. We only wish the keys were better placed.

User interface
The biggest improvement in WD TV Live Hub comes in the form of the UI it runs on, "Mochi". This UI was hands down, the best among all the players we tested. The navigation was effortless and very easy to use. Further, the UI is also customisable (background, animation theme etc.). The UI also lets you customise the way your content should be displayed (thumbnail, list, previews etc.). The UI on the iOmega Screenplay MX 1 TB compared to the WD TV Live hub is a bit unspiring. Its simple but feels drab. The iOmega Screenplay DX runs the same UI as the Link DX, which means

Performance
Performance wise WD TV Live hub did an excellent job of upscaling the videos. It delivered excellent colour reproduction and sharpness though we spotted minimal noise at certain times. The only factor that disappointed us was no inbuilt Wi-Fi. The iOmega Screenplay MX 1TB delivered poor performance with darker scenes, there was a lot of unwanted noise, basically the performance was not up to the mark. Apart from the poor dark scene reproduction the player doesn't give you the option to jump to the next track. We had very little to complain with the performance of iOmega Screenplay DX. It delivered good upscaling. The ASUS O! Play Gallery delievers very good performance while upscaling videos, it really managed to pump out good sharp and vivid videos and we only wish this performance was just a notch higher.

Winner
With a very sturdy build, an inbuilt 1TB HDD and with a decent performance the iOmega Screenplay MX 1 TB wiggled through as the Best Buy. For performance and ease of use we suggest you to have a look at the WD Live TV Hub 1 TB.
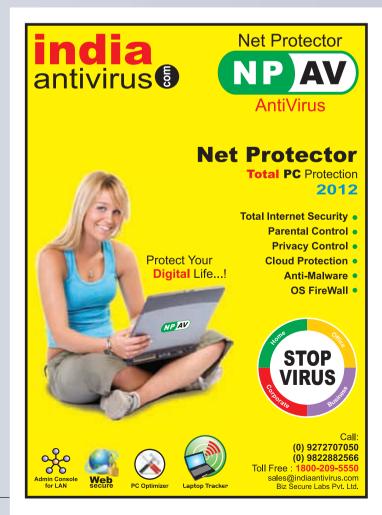
Editor's Pick
For delivering good upscaling performance, innovative QWERTY remote, great file format support and excellent build quality the Editor's pick goes to the iOmega Screenplay DX 1 TB.

HOW WE TESTED

The most important feature of an HD media player is the ability to play anything you throw at it, to upscale the videos and give you a better video viewing experience. We gave more importance to the upscaling performance of the player, followed by the features it touted. We connected the HD media players to a full HD Alienware 21-inch monitor via HDMI. Monitors give us the ability to look closely at pixels to determine upscaling quality. We had three test videos, one each of .avi(480p), .mkv(720p) and .mov(1080p). We shortlisted four scenes from each of the videos equally distributed between dark scenes, colourful and vivid scenes, bright scenes and detail driven scenes. We then looked how each of these players fared at delivering each of these scenes and points were accordingly awarded.

Further, we also rated the players with its overall ease of use viz. UI, remote, setting it up etc. We noted the time the players took to boot up, read a USB stick and read an HDD. We allotted weightage to each of these features. We also considered the build quality of both the player and the remote. An HD media player is incomplete without an HDD, thus for the final results we added the cost of the cheapest supported 1 TB HDD for each of the media players that didn't have one. This price was the one we used to calculate the Best Buy awards for each category.

Criteria	Winner
Connectivity	ASUS O! Play Gallery
File Format Support	Amkette Flash TV HD
Web Features	Screenplay TV Link Dx
Performance	ASUS O! Play HDP R1
Build Quality	ScreenPlay MX 1 TB
Ease of Use	WD Live TV Hub 1 TB

Did you know?
Mouse can measure stress levels with the help of pulse wave sensor which measures the blood flow in the finger tip

Self Driving cars
Self driving car which is driven by computer and navigation is done by satellite navigation.

Anirudh Regidi, Jait Dixit,
Mithun Mohandas
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When it comes to PC gaming, a lot of things change. Game engines get upgraded, new rendering APIs are developed, graphics cards get increasingly more powerful, games and developers rise and fall from favour. Despite all this, one of

of all sorts of gamers. There is no such thing as the ideal keyboard or mouse. For example, Razer conducted some research and came to the conclusion that most pro-gamers in StarCraft 2 would prefer a mouse that was light weight, used a "claw" grip and had a very precise click response. The key word here is "most". How you play depends entirely on you and the hardware you choose must reflect that.

nimbly calling the shots from your fingertips in sports sim, or raising hell in racing games; your constant companion is all your endeavours is the humble keyboard. A discussion about which keyboard is the best can last for ages.

In the end it all boils down to how you find a keyboard and whether it suits and is meant for your style of play. It's always your call at the end of the day.

Zebronics Judwaa 5
We admit that we were a bit skeptical when we saw the Judwaa 5 among the test samples but we went ahead considering it to be a budget gaming combo, but it still didn't quite cut it. The keyboard is hardly worth mentioning, the only saving grace is the Judwaa mouse which comes with a DPI switch that allows for a maximum of 800 DPI. Overall, a multimedia keyboard and variable DPI mouse at ₹475 is not a bad deal.

A blow-by-blow account of various gaming keyboards and mice to help you stock-up your arsenal

AT ARMS

Razer Black Widow Ultimate Stealth Edition

Razer Black Widow Ultimate Stealth Edition
Razer Black Widow Ultimate Stealth Edition is the latest entrant in Razers gaming keyboards stable. Stealth here is attributed to the use of the silent Cherry MX Brown in lieu of the noisy Cherry MX Blue. Specs wise it was one of the best keyboard to come our way. Only downsides which we came across was that it does not have N-Key Rollover(though anti-ghosting sort of makes up for it)

Razer Starcraft II Marauder (bundle)
This bundle is a part of StarCraft II themed gaming accessories from Razer. Razer has done a very good job of sticking to the theme, with laser-etched keys that resemble the all-too-familiar HUD from the game. Built for StarCraft II, the keyboard and mouse have an inte-

the few things that remain stagnant are the actual peripherals you use to play your games on the PC. A good quality mouse coupled with a good mechanical keyboard can be an investment that will last you a really long time.

As a gamer, you need to be very aware of your playing style to know what sort of hardware you need to purchase. Makers of gaming peripherals do their utmost to ensure that their catalogue to the requirements

Keeping this in mind, we decided not to rate the devices we received based on their performance and ergonomics. Instead we are presenting you with all the relevant information you will need to make the decision on your own.

Gaming keyboards
Whether its strafing around and blasting your opponents to smithereens in an FPS, befuddling the competition with a blitzkrieg in an RTS or an RPG,

CMStorm Quick Fire Rapid
CM Storm QuickFire Rapid, is a product from Cooler Master's gaming arm. They come in 4 flavours. These keyboards are compact, thick and heavy, and sport detachable cables and mechanical keys.

The lack of a numpad might be a downer for those who like to record their macros onto it. However, the compact profile will be a boon for gamers having huge gaming mats.

Future Doctors
Panasonic launches Hospio Rimo robot which is used for improving communication between patient and doctors when either of the are absent

3D taken to the next level
With the help of Japanese firm locks can be unlocked with help of hand geusters using 3D
http://bit.ly/q5OE6d

Gaming Peripherals Test

grated APM indicator. The backlight changes according to your current APM. You have the option of customising the backlight via the included Razer software. You can also save multiple profiles and have them switch on for particular applications. One drawback with the mouse is that your hand will cover up the indicator LEDs making them redundant.

Razer Cyclosa (bundle)
Cyclosa bundle features the Cyclosa keyboard and Abyssus mouse. Being sold for a great price of ₹2,699, this is too good of a deal to be missed. The Cyclosa is a good keyboard sans the luxury features present on the more premium designs. Ditto the mouse. Design-wise, both the keyboard and mouse are very simplistic with only the keyboard featuring extra buttons for gaming. The mouse lacks a dpi switch, but is fully programmable via the bundled software.

Steelseries 6Gv2
Steelseries 6Gv2 forgoes all the snazzy things and goes back to basics. Its has a solid and a sturdy build which can be attributed to internal metal chassis. The keys are laser etched and chunky. Some quirks like the placement of the [\]

Steelseries 6Gv2

key next to right shift, which takes some time getting used to. The absence of custom drivers and macros work against it.

Gaming mice
Choosing the right mouse to complement your playing style is essential to your success as a gamer — especially if you're an FPS gamer. Though if you only play FPS games and such, you wouldn't normally need mice with multiple profiles and macro keys. A simple mouse with switchable DPI should be sufficient. However, for people who play a lot of RTS games such as *WoW*, macro keys and extra programmable buttons is a boon.

Razer Orochi (Black)
Despite its diminutive size, this mouse is packed to the brim with features. With everything from a high dpi sensor to 4 extra buttons, coupled with excellent ergonomics for a claw grip, the mouse is excellently designed. Its small size means it is portable and you can use it in bluetooth mode if you so desire, but this mode is not recommended for gaming. The mouse is surprisingly comfortable and heavy as well

Razer Orochi

with the batteries. Overall, a very good mouse, but it is expensive and only worth considering if you really need a portable gaming mouse.

Steelseries XAI
The bigger brother of the Kinzu, the mouse is quite large, but also extremely light for its size. In fact, it weighs almost the same as the Orochi without the batteries. The LCD display at the bottom is a boon for the gamer who like to fully customise his mouse. Every relevant setting including dpi, sensitivity, smoothing, acceleration, etc. can be adjusted via the mouse itself and stored in 5 separate profiles. Thumb buttons were a bit too sensitive and there were a lot of misclicks. However, the mouse itself is exorbitantly expensive considering the features on offer.

Coolermaster CM Storm Inferno
A mouse that really looks the part. Funky design with a multitude of programmable keys and indicator leds, good ergonomics along with switchable profiles and dpi make this one of the most feature-rich mice we

CMStorm Inferno

KEY TYPES

Primarily two types of keys are found on keyboards these days: Rubber-domed and Mechanical. Rubber-domed keys are designed so that all the keyhubs are positioned directly above rubber domes, which in turn lie above

Rubber-domed

a plastic membrane that is spread over the entire keyboard. Whenever the key is fully depressed, a contact point at the top of the rubber dome pushes the top layer through a hole in the middle layer to contact the bottom layer, creating a short circuit which generates the keystroke that is then sent to the computer.

While in case of mechanical keys each key has its own independent keyswitch mechanism that will register a keypress. Depending on the construction of the switch, such keyboards have varying response and travel times. Cherry Corporation manufactured keys are among the very best available. Most of the keyboards featured here use Cherry MX keys, which are referred to by the color of the stem to which the keycap is attached: Cherry MX Black switches provides a linear feedback, Cherry MX Brown switches provides a modicum of feedback as the switch travels over a physical bump as the key hits its actuation point, Cherry MX Blue switches provide both a tactile feel and also an audible click. Cherry MX Clear switches are similar to MX Browns, but require more force to depress. In the end we have Cherry MX Red switches which possess an identical construction as MX Blacks but require less force to depress.

Cherry MX Blue

Keyboards

Brand	Cooler Master	Cooler Master	Cooler Master	Zebronics	Razer	
Model	QuickFire Rapid (Blue)	QuickFire Rapid (Red)	QuickFire Rapid (Black)	Judwaa 5 (Bundle)	Black Widow	
Price (₹)	6,500	5,800	5,800	475	7,299	
Pros	Compact, Sturdy and Cable Management	Compact, Sturdy and Cable Management	Compact, Sturdy and Cable Management	DPI Switch	Game Mode, Dedicated Macro Keys, USB and Audio Headers	
Cons	NA	NA	NA	Barely a gaming combo	NA	
Features						
Bundled accessories	6 extra keys, Keycap tool, USB - PS/2 adapter	6 extra keys, Keycap tool, USB - PS/2 adapter	6 extra keys, Keycap tool, USB - PS/2 adapter	-	-	
No.of Keys(Normal/Multimedia/Macro)	88(88/0/0)	88(88/0/0)	88(88/0/0)	111(103/8/0)	109(104/0/5)	
Rubber pad/Mechanical	Mechanical	Mechanical	Mechanical	Rubber Domed	Mechanical	
Mechanical Type(Cherry MX Red/Blue/Black/Brown)	Blue	Red	Black	NA	Brown	
Travel Distance(mm)	2.3	2.3	2.3	2.3	2.1	
Backlit	N	N	N	N	Y	
Braided Cable (Y/N)	Y	Y	Y	N	Y	
Cable Length (Ft.)	6	6	6	4.5	7.5	
Polling Frequency (Hz)	1000	1000	1000	125	1000	
Custom Drivers (Bundled or otherwise)	N	N	N	N	Y	
Spill Proof	N	N	N	N	N	
Dimensions (LxWxD) (in mm)	355x135x35	355x135x35	355x135x35	445x167x22	475x171x30	
Weight (g)	940	940	940	550	1500	
Numpad	N	N	N	Y	Y	
Windows Key disabled	Y	Y	Y	N	Y	
NKRO	Y/6KRO in USB	Y /6KRO in USB	Y/6KRO in USB	NA	N/6KRO in USB	
Anti-Ghosting	Y	Y	Y	N	Y	
Cable Management	Y	Y	Y	N	N	
USB Passthrough	N	N	N	N	Y	
Audio ports	N	N	N	N	Y	
Multi-profile support	N	N	N	N	Y	
Warranty(Years)	2	2	2	1	1	

Mice

Brand	Razer	Cooler Master	Cooler Master	Cooler Master	Steelseries	Steelseries	Zebronics	
Model	Orochi Black	CMStorm Inferno	CMStorm Sentinel Advance	CMStorm Spawn	Kinzu	Xai	Judwa 5 (bundle)	
Price (₹)	4,300	2,800	3,300	2,100	1,599	6,999	350	
Plus (+)	A good gaming mouse	Completely Customizable; Good grip	Extra weights	Superb design	Basic Mouse but good enough for gaming.	LCD display to fully customize profile	Cheap	
Minus (-)	Extremely Compact	None	Build Quality	None	Extremely basic	Not as comfortable as some other designs	Limited to 800dpi	
Features								
Accessories	Travel pouch	-	Skates	-	-	Spare skates	-	
Dimensions	99x67.8x35	120x75x40	135x83.5x40	107x75x35	117x64x36	125.5x68.3x38.7	102x60x33	
Sensor DPI	4000 (2000 in Wireless Mode)	500-4000	200-5600	800-3500	400-3200	100-5001	800	
Type of Sensor	Laser	Laser	Laser	Optical	Optical	Laser	Optical	
Weight (Grammes)	95 / 141 (With batteries)	161	161.5	142	77	98	NA	
Wired / Wireless	Both / Bluetooth	Wired	Wired	Wired	Wired	Wired	Wired	
No. of Buttons / Programmable Buttons	7 / 7	11 / 9	8 / 8	7 / 7	4 / 0	8 / 4	4 / 0	
Mouse wheel click (Y/N)	Y	Y	Y	Y	Y	Y	Y	
On the fly DPI changing	Y	Y	Y	Y	Y	Y	Y	
Independent X and Y axis dpi	N	Y	Y	Y	N	N	N	
Indicator lights (No. of lights) / LCD	N	Y (6)	N / OLED	N	Y (1)	Y (1) / LCD	N	
Max Polling rate (Hz)	1000 (125 in wireless mode)	1000	1000	1000	1000	1000	125	
Polling rate switching without driver	N	N	N	N	N (125-1000Hz)	Y (125-1000)	N	
Ambidextrous (Y/N)	Y	N	N	N	Y	Y	Y	
Lighting	Y	Y	Y	N	N	Y	N	
Cable quality / sheathing	Braided	Braided	Braided	Braided	Braided	Braided	N	
Cable length (Feet)	3	7	5.5	6.5	6.5	6.5	4.5	
Lift-off (~mm)	2	2	2	2	2	1	NA	
Tracking rate (Inches/s)	100	115	253	60	50	150+	NA	
Warranty (Years)	1	2	2	2	1	1	1	

Future weapons
Toy aeroplanes measuring 5.5ft or more capable of flying at over 100mph and carrying GPS can be used as weapons

Gaming Peripherals Test

Razer	Steelseries	Razer
Starcraft 2	**6Gv2**	**Cyclosa (Bundle)**
7,499	**8,599**	**2,699**
Game Mode	Build Quality	Value for Money, Game Mode
Cost	Cost	Non-braided cable
-	USB to PS2 Adapter	
96(96/0/0)	103(103/0/0)	105/0/0
Rubber Domed	Mechanical	Rubber Domed
NA	Black	NA
2	2.2	3
Y	N	N
Y	N	N
7	6	6
1000	NA	1000
Y	N	Y
Y	N	Y
400x182x32	440x144x33	450 x 167 x 30
1062	1170	920
Y	Y	N
Y	Y	Y
Y/6KRO in USB	Y/8KRO in USB	NA
Y	Y	Y
N	N	N
N	N	N
N	N	N
Y	N	Y
1	1	1

Razer	Razer	Razor	NZXT
Spectre (Starcraft II bundle)	**Imperator**	**Abyssus (Cyclosa bundle)**	**Avatar S**
4,999	**3,150**	**1,000**	**2,300**
Custom built for Starcraft II	Well built and comfortable	Superb bundle at this price	Looks very cool
LED indicators are not visible under use;	None	Mouse should have at least had dpi adjustment	Ergonomics disappoint
-	-	-	-
100x66x37	123x71x42	115x63x40	129x69x33
5600	100-5600	1800	400-1600
Laser	Laser	Infra-Red	Laser
NA	180	NA	NA
Wired	Wired	Wired	Wired
5 / 5	7 / 7	3 / 3	5 / 5
Y	Y	Y	Y
Y	Y	N	N
Y	N	N	Y
Y (3)	N	N	N
1000	1000	1000	1000
N	N	N	N
N	N	Y	Y
Y	Y	Y	Y
Braided	Braided	N	N
7	6.5	7	6.5
2	2	2	2
200	200	60	30
1	1	1	2

Contact sheet

Brand	Phone	Email	Website
Razer	NA	sashank.bhandaru@razerzone.com	www.razerzone.com
Zebronics	044-40000007	enquiry@zebronics.info	www.zebronics.net
Steelseries	011-41324829/30	roushan@faxtelindia.com	www.steelseries.com
Cooler-Master	011-40525645	marcom_in@coolermaster.com	www.coolermaster.in

encountered. The addition of a "MacroPro" key and "Rapid Fire Tractical" button to enhance your ability to fire off macros is a nice feature. The MacroPro key records macros directly on the mouse itself and even records mouse movement. At a price of ₹2,800, this mouse is a real steal.

Cooler Master CM Storm Sentinel Advance

A very large mouse, it is designed specifically with the palm grip in mind. The mouse is very comfortable, despite looking a bit ungainly. The wide base provides good grip and the buttons are quite conveniently placed. The button to switch profiles is placed at the very tip and is a bit hard to reach, ensuring that you don't hit it by accident. Another problem was that switching the dpi freezes the mouse for a moment. This was, also, one of the only mice which came bundled with removable weights. A nice addition and a feature definitely worth considering as a gamer.

Cooler Master CM Storm Spawn

The Spawn is a very well-built mouse. Ergonomics are spot on, if you are looking for a claw grip. The rubberized side ensures that the mouse doesn't slip, and the light weight means it is very good for fast-paced games such as *Quake III*. Accuracy was spot on as well. Cooler Master also claims that they have used "Omron" micro switches, which are good for 5 million clicks, making this mouse extremely durable as well.

SteelSeries Kinzu

Sporting a design similar to the Xai, the Kinzu drops all extra buttons and features in favour of a DPI switch, leaving just a basic mouse with a high precision sensor. At this price point, considering the features, the mouse is a little expensive compared to other options in this segment, including the Razer Abyssus.

Razer Imperator

This is quite a large mouse and will serve very well for people with large hands. The mouse is very comfortable in hand and the adjustable position of the thumb-triggers is a nice addition. The mouse itself feels very good and well-built. It tracks nicely as well. Two switches are present for adjusting dpi on the fly, the only drawback is that in this mouse as well, there is a slight pause when the mouse freezes to adjust.

NZXT Avatar S

A very elongated mouse, the Avatar S is NZXT Avatar's successor launched 3 years ago. The mouse is very narrow and a bit angular in some places, making it a bit uncomfortable to use. Tracking accuracy is good but we would have preferred a higher dpi setting at the very least. The mouse looks very cool though and handles well. The two extra buttons are a little inconvenient to use and a bit too sensitive as well. ◘

Bazaar

Opera mini
Hybrid browser to lead Opera's charge
by building Opera Mini into Opera Mobile.
http://cnet.co/2kfeCm

Lenovo N5902
For home theater buffs, Lenovo's latest multimedia
keyboard offering ditches its predecessor's glossy
black finish for a matte black one

Boxee Box media streamer

Expensive Perfection

The Boxee Box is a part HD media player and part HD media streamer. As one device, it attempts to do the best of what the WD Live HD media player series does and also what Apple TV does. And it does so while looking very unique. One look at the form factor, and you know this Box will stand out from all the other gadgets in your home theatre console. However, size-wise, the Boxee is much bigger than the WD Live, WD Live Hub and the puck sized Apple TV. No let up in connectivity options—HDMI out, optical audio out, two USB inputs and a memory card slot. No internal storage space though, unlike the WD Live Hub. An Intel Atom processor powers the Boxee and some inbuilt storage to install apps and save temp files.

However, that size difference can be forgotten the moment you see the performance. The HD up-scaling quality does depend on tweaking the settings correctly. In the video settings, select De-interlacing policy to "never, unless scaling", De-ring filter and Gaussian filter off. Why we say this is because with the two filters switched on, we found a bit of noise in both HD and SD video content. However, with both turned off, the picture quality was absolutely fantastic. Compared side by side to the WD Live with the same content, the Boxee was just that much better. What also helps is the fact that the colour depth level can be bumped up to 36-bit, as compared to a max 12-bit on the WD Live. File playback is pretty much seamless off a USB storage device. It handled all file formats we threw at it.

What the Boxee handles much better than the WD Live is the video streaming bit – off the PC on the same network. While the WD Live depends on software such as PS3 Media Server and TVersity, Boxee has its own Boxee Media Manager app for the PC and Mac. Select the folders from within the app, connect the Boxee via a wired connection to the same network, and it will immediately detect those folders in the File Menu. The streaming does work well off a wired connection. We played back SD videos without any stuttering. Most 720p HD videos also played back without stutters. However, 1080p HD videos will stutter, depending on the router limitations. Weirdly, the volume control doesn't work when you are streaming an HD video (.mkv format, usually).

The remote that comes with the Boxee is just brilliant. One side is a bunch of keys- directon, menu, play/pause and return on a glossy form factor. On the other side is a full-fledged QWERTY keypad. That is useful when accessing web apps.

Speaking of which, the variety of web content is quite good. However, we do get limited content in our geographical location. For example, Netflix doesn't work here. However, you do get apps such as Groove-shark, TuneIN Radio, You Tube and even a web browser. The browser does render web sites quite well, and was much better than what we expected.

Overall, the Boxee is a bit of this and a bit of that device. It works well as an HD media player when you connect a USB drive to it. It works equally well when you are streaming videos to it from a PC on the same network. We do not get the exciting apps such as Netflix in India, so that basically reduces the services to a similar level as the rivals. The variety is definitely more with the Boxee but we aren't sure how many of those you will use. The price of ₹13,999 is definitely on the expensive side. And that is the only real fault we can find with this device. You may want to check out the WD Live Hub — costs about ₹11.5k and comes with 1TB storage space.

Vishal Mathur

Specifications
Intel Atom processor
HD media streamer
1080p upscale resolution
2 USB ports
Memory card slot

Contact
D-Link India
Email: helpdesk@dlink.co.in
Contact: +91-22-27626600
Price: ₹13,999

7.0/10

Features 8.0
Performance....................7.5
Build Quality 7.5
Value for Money 5.5

Kim Jong-il looks around
North Korea's 'dear leader' has a fascination with looking at things. This website has pictures taken by people looking at Kim Jong-il looking at things
http://bit.ly/dfqWy8

Tribute to Steve jobs
California Governor pays tribute by naming October 16 Steve Jobs Day
http://cnet.co/2kfeCm

Bazaar

Sony Bravia HX925

This is 46-inches of being almost perfect

The Bravia HX925 has a 1920x1080p HD with Corning Gorilla Glass panel. It has a built-in web browser, You Tube app, Facebook, Twitter, widgets and Skype capabilities – this does really pack a few punches if you want web-based content on the television. We were a tad disappointed by the limited variety of widgets at the moment. What particularly impressed us was the YouTube app. We had connected the HX925 via a particularly not very fast Wi-Fi, but the video streaming was literally buffer free. A 720p HD video buffered for 4 seconds and played the rest of the 12 minutes stutter free. If you happen to go back into the menu while

watching a You Tube video, the video won't pause. The small window will open up on one part of the screen that will keep the video playing.

HD video playback was quite good. Satisfactory brightness and contrast levels made the visual experience that much better. There are a lot of other settings that you can tweak as well. Fast moving scenes didn't look good at all until we set the Fast motion setting to Super Smooth. No matter what setting we selected before this – clear or smooth, fast moving objects (birds flying etc.) did not feel real, and even suffered from

minor momentary distortion. Live Colour feature does add a lot of zing to the colours, but we suggest you keep this turned off.

With this television, you can even watch 2D content as 3D. Two 3D glasses are provided as a part of the package. Overall, Sony's taken the game to the next level with the HX925. 3D content better than ever.

Vishal Mathur

Specifications
Display: LED with Intelligent Peak, 3D display, 1080p resolution, X-Reality Pro engine, Corning Gorilla Glass; **Ports:** 4 HDMI in, 2 USB, 1 Optical Audio out; **Web:** Wi-Fi built-in, Facebook and Twitter, You Tube, Sony video app

Contact
Sony India
Phone: 18001037799
Email: NA
Web site: www.sony.co.in
Price: ₹1,53,000
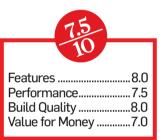
7.5/10

Features 8.0
Performance....................7.5
Build Quality 8.0
Value for Money 7.0

Acer Aspire S3

High quality slim ultraportable at an affordable price

Make no mistakes, the Aspire S3 takes aim directly at the razor-thin MacBook Air ultraportable laptop.

The Aspire S3's chassis is constructed of magnesium alloy and has a gun metal exterior which feels nice on touch. The slim 13-inch laptop weighs and measures about the same as a 13-inch MacBook Air. There isn't a hint of gloss anywhere, except the black monolithic display. The Aspire S3's build isn't exactly similar to the MacBook Air, but it's definitely good and premium. Despite its 13-inch form factor, the Acer Ultrabook weighs the same as a 10-inch netbook. Sweet!

There's no optical drive, ethernet and side ports on the S3; included ports are placed on its spine. Wireless connectivity includes 802.11 b/g/n and Bluetooth 4.0. The laptop sports a 2nd generation Intel Core i5 processor and oodles of RAM to offer better performance than any netbook and nearly as good as a mainstream 14-inch laptop.

That said, the Aspire S3's overall performance is good. Working with day-to-day

apps is just fine, and its instant on feature revives the S3 from sleep mode within just a few seconds. Very snappy.

The laptop plays 1080p HD files well at native res, but has disappointing onboard audio. Its keyboard is nice and singe-slab touchpad takes time getting used to. Battery compartment is sealed but its performance is surprisingly good, though — easily expect over 3.5 hours of browsing the Web. Overall, a good offering by Acer for style savvy customers for a thin, premium ultraportable at an affordable price.

Jayesh Shinde

Specifications
Screen: 13.3-inch glossy, 1366x768; **CPU:** Intel Core i5-2467M 1.6 GHz; **RAM:** 4 GB DDR3; **HDD:** 320GB; **GPU:** Intel HD Graphics; **OS:** Windows 7 Home Premium 64-bit; **Ports:** 2 x USB, VGA, HDMI, card reader, headphone; **Battery:** 3-cell Li-polymer; **Weight:** 1.35 kg

Contact
Acer India Pvt Ltd
Website: www.acer.co.in
Contact: 080-25329520 / 21 / 23
Price: ₹52,900

7.0/10

Features 6.5
Performance....................7.0
Build Quality 7.0
Value for Money 7.0

Bazaar

Infidelity detector
A man reported that the Find my Friend application on the new iPhone 4S helped him catch his wife cheating on him

Baby repair kit
It may only be a matter of months before babies start getting treated for deficiencies while in their mother's womb **http://bit.ly/pojxkN**

Acer Iconia A501

The future is bright, the future has an OS update lined up!

The Acer Iconia A501 weighs exactly the same as the Motorola Xoom—730 grams (approx.), but just feels more comfortable to hold and use for a long duration. The build quality is quite good. No rough edges.

The dual core 1GHz processor deservedly gets 1GB of RAM, allowing it to flex its muscles. The performance on offer is quite good. The moment games kick in you do feel the punch. Even with a couple of apps and the web browser open in the background, the HD version of Need For Speed- Shift didn't face any problems.

The white levels are quite good on the 10.1-inch display, and that shows when browsing the web. The crispness also helps

when you are reading text. The extremely reflective nature of the display does mean you will be forced to use it at certain angles, depending on the light positioning.

It's a problem playing back most HD video files though—unrecognized codecs. The Standard Definition AVI files played back just fine. Once the Android 3.1 and 3.2 updates arrive on this device, this problem will be solved.

The placement of the camera on the rear side is a bit of an issue though. If you hold the tablet in landscape mode, your fingers will inevitably touch its camera.

Battery life on the Iconia isn't as good as what we see on the

Apple iPad, but definitely better than what we experienced on the Motorola Xoom. This one lasts about three days, from full charge to full discharge, which is quite good.

In a straight comparison to the Motorola Xoom, the Iconia A501 has the advantage of form factor. Check out our detailed review here: **http://goo.gl/vpsFA**

Vishal Mathur

Specifications
Platform: Android 3.0.1 (Honeycomb): **Processor:** ARM Cortex-A9 dual core 1GHz; 1GB RAM; **Display:** 10.1 inch, 1280x800 resolution; **Storage:** 16GB built-in, microSD slot up to 32GB; **Connectivity:** 3G + Wi-Fi; **Battery:** 3260 mAh

Contact
Acer India
Web site: http://www.acer.co.in/ac/en/IN/content/home
Price: ₹32,990

6.5/10

Features	6.0
Performance	6.5
Build Quality	7.5
Value for Money	6.5

Beetel MAGIQ

Different, very

The MAGIQ has a 7-inch resistive touchscreen, and comes preloaded with Android 2.2.2. There is a neat UI skin wrapped around the OS, and we kind of the like the multiple desktop thing that it is trying to create here. The traditional Android notification bar has been removed, and what remain are just the icons - for bat-

tery status, wireless control, network signal, Bluetooth and even brightness management.

The MAGIQ is powered by a 1GHz processor and paired with 512MB of RAM. The tablet comes with 8GB of built-in storage, and you can expand the memory using a microSD card, up to 16GB. The limited amount of RAM is going to be a bit of a performance-limiting factor.

The 7-inch resistive touchscreen is a definite sore point. Resistive displays are just a backward step for the product as a whole. Capacitive screens rock!

The 2MP camera on the rear, as well as the video chat one, isn't very good. Extremely grainy images at best, even with good lighting around. Videos are very jerky as well.

Battery life is not as good as we hoped it would be. A bit of video viewing, web browsing and some music and the MAGIQ ran out of battery in about 4 hours. This was when the brightness was turned down to 20%.

To sport a price tag of ₹9999, the MAGIQ does make some compromises – resistive touchscreen, Android 2.2 and a heavy form factor. However, if you don't mind spending ₹13000 on a network locked tablet, then the Reliance 3G Tab is attractive.

Vishal Mathur

Specifications
Platform: Android 2.2; **Processor:** 1GHz processor; **RAM:** 512MB; **Display:** 7-inch resistive touchscreen, **Resolution:** 800x480 pixels; **Storage:** 8GB, microSD slot to expand it to 16GB more; **Unique feature:** can make and receive calls; **Battery:** 2200 mAh

Contact
Beetel Teletech Limited
Email: customer.care@beetel.in
Contact: 01204823500
Price: ₹9,999

6.0/10

Features	6.0
Performance	6.5
Build Quality	7.0
Value for Money	6.0

3D Flash games on the web?
Flash 11 was shown running Unreal Tournament 3 at Adobe MAX 2011, so it might not be impossible **http://bit.ly/nKbkD**

Faster speed? Why?
An in-depth review of USB 2.0 vs USB 3.0 Bazaar
http://bit.ly/nHeCZE

Bazaar

Sony BDV-E980 home theater

Punching above its weight

What surprised us about the BDV-E980 is the fact that it actually feels like a mid-range home theater setup. That little dash of "premium feel" does allow this HTS to sport a price tag that takes it well into the Denon/ Onkyo/ Yamaha category. Its receiver does look a bit like the Bose Lifestyle ones.

Setting it up is easy. With colour coded speaker wires, you may just be able to set up the speakers and hook them up well before the service person comes along.

However, the glossy finish on the receiver as well as the speaker floor stands for the means you will have to be extra careful to prevent scratches. And also maintain against dust. This is a 5. Channel HTS with two HDMI inputs as well, and a Blu-Ray player to boot that does 3D as well!

Once hooked up, you can configure the speaker levels. We suggest keeping most at default, but do bump up the centre channel to +2 dB (for vocal clarity) and the sub to +1 dB (for punchier bass). As far as sound quality goes, we just loved the vocal clarity from the

very slim centre channel speaker. Also, the surround effect is quite immersive. Its bass sounds a little rubbery, but as we have seen with most HT setups, the sub does take a couple of dozen hours of being active to really open up.

Overall, at almost ₹40,000, this HTS does face competition from the likes of the Denon HTS 391XP. If you have a Blu-ray player, we suggest going for the Denon. However, if you want a Blu-ray as well, you can definitely check this one out.

Vishal Mathur

Specifications
5.1 channel Blu-Ray home theater, 3D picture and 3D surround, HDMI repeater, HDMI out, optical audio, LAN capabilities, Wi-Fi optional

Contact
Sony India
Web site: http://www.sony.co.in
Email: http://bit.ly/o7xidE
Contact: 18001037799
Price: ₹39,990

7.0/10

Features 7.5
Performance..................... 7.5
Build Quality 7.0
Value for Money 6.5

Samsung Galaxy Tab 750

Android tablets reach the next level

Specifications
10.1-inch display, 1280 x 800 resolution, 1Ghz dual core, 1GB RAM, 16 GB storage, 3G capability with standard SIM card, 3.2MP rear camera & 2MP video call camera, Wi-Fi and Bluetooth, Android 3.1

Contact
Samsung India
Email: http://bit.ly/pvoDDm
Website: http://www.samsung.com/in/
Contact: (Prefix Local STD Code) 3030 8282
Price: ₹36,200

7.0/10

Features 7.5
Performance..................... 7.0
Build Quality 7.5
Value for Money 6.5

Despite their best efforts, the likes of the Motorola Xoom, Acer Iconia and the Asus Transformer, the Apple iPad has remained unchallenged. But the challenge has finally arrived - the Samsung Galaxy Tab 750. Just to clear out the confusion, the Tab 730 has a 7-inch display, while the Tab 750 has a 10-inch display.

Significantly, the Tab 750 outdoes the iPad 2 in two significant aspects – the weight and the thickness. Apple iPad 2 weighs 607 grams while the Tab 750 weighs only 565 grams. While the purists will point fingers at the plastic finish that Samsung has applied on the 750, but it has done the job. The iPad 2 has an 8.8mm thickness while the Tab 750 has

a 8.6 mm thickness – not much but the figures speak for themselves!

We always expect brilliant displays from Samsung devices, based on the past trend. And the Tab 750's display is much better than all other comparable Android tablets. The iPad 2's display is still a bit crisper though, despite the 750's higher resolution. Brightness wise, the Tab's display does well at 50% setting. Any more, it is just too bright for normal usage scenarios. Performance wise, Android just felt slicker on this than the Xoom or the Iconia A501. However, Android

as an OS just lets down the tablets, and the Tab 750 faces the brunt too. The sudden jerkiness and stutters are just disappointing. Battery life is comparable to the iPad 2 – about 12 hours.

If you want an Android tablet, this is the one to buy. If you want just a tablet, the iPad 2 is still the one to buy.

Vishal Mathur

Bazaar

SIRI
At an apple conference on October 4 a new assistant program called SIRI was launched, which claims to forever change the way we interact with our phones.

Salvage Bot
NASA is thinking of sending robots into space so as to salvage parts from the "graveyard" belt, an orbit where satellites go to die.

Sony Ericsson Xperia Mini
Updated to sheer brilliance

The updated Xperia Mini is slightly bigger than its predecessor. While the older one had a 2.55-inch display, the new one has a 3-inch one. The keys have been redesigned as well.

The 1GHz processor is paired with 512 MB of RAM. It doesn't get bogged down when you install apps on it, and only slightly slower when you have a bunch of apps running in the background.

The Timescape UI has come a long way since we first saw it. The latest version on the Xperia Mini of Corner UI has app shortcuts on all four edges. Now you can set upto four icons in any of the four clusters. Very convenient and actually useful.

The 3-inch display is LED backlit with a resolution of 320x480 pixels. While this is a slight bump up, size-wise, from its predecessor, it still keeps the Mini well within the tiny smartphone category. However, typing out an SMS just became a lot more comfortable on this.

Camera performance is a bit of a disappointment though. Images are not very crisp, and lack detailing.

Battery lasts 1.5 days with usage including a few voice calls, constant connectivity to either Wi-Fi or EDGE and the inevitable WhatsApp chats.

The updated Sony Ericsson Xperia Mini is possibly one of the best Android smartphones to have arrived in the market in 2011. Just goes on to show how important updates are. A powerful processor, the latest version of Android and premium finish at a box price of ₹13,380 makes this an amazing deal. Otherwise, why not go for the Xperia Mini Pro and get a physical QWERTY keypad as well?

Vishal Mathur
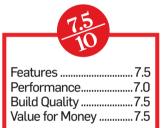
Specifications
Platform: Android 2.3; **Processor:** Qualcomm Snapdragon single core 1GHz, 512MB RAM; **Display:** 3.0-inch LED display, 320x480 pixel resolution; **Storage:** 320MB, microSD slot; **Camera:** 5MP with 720p videos; **Battery:** 1200 mAh

Contact
Sony Ericsson India
Web site: www.sonyericsson.com
Contact: (124) 4625055
Price: ₹13,380

7.5/10

Features	7.5
Performance	7.0
Build Quality	7.5
Value for Money	7.5

Vodafone 555 Blue
Facebook will never be too far away

Specifications
Platform: Proprietary; **Processor:** 200MHz; **Display:** 2.4-inch QVGA, 320x240 pixel resolution; **Camera:** 2MP with LED flash; **Storage:** microSD slot up to 16GB; **Battery:** 1000 mAh

Contact
Vodafone India
Web site: www.vodafone.in
Price: ₹4,950

7.0/10

Features	6.5
Performance	7.0
Build Quality	7.0
Value for Money	7.0

Facebook integration seems to be the name of the game. We reviewed the HTC ChaCha sometime back (http://goo.gl/4Cj8r), and that was the first indication of how deeply Facebook can be integrated with the smartphone.

Blue doesn't have the ChaCha's banana curve design, and the keypad layout is also a lot different from the HTC phone. The QWERTY keypad is distinctly divided into four rows, while all keys in one row don't have a lot of spacing between them.

One word- Facebook! The darned Facebook button holds more aces up its sleeve! This time offering functionality and access we had expected, and not remain just a quick post thing.

The 2.4-inch QVGA display has a resolution of 320x240 pixels. It is a pretty okay display for reading text on, and the high-ish brightness levels means that viewing in sunlight won't be a real problem.

Don't expect much from the 2MP camera, except a quick snap to post on Facebook.

Vodafone Blue does cut down on features like Wi-Fi connectivity and 3G. The slow speeds on EDGE means You Tube is almost certainly out of the question.

Despite being a pretty small battery, just 1000 mAh worth of juice, it manages to hold up quit well - about a day and a half to two days.

The Vodafone 555 Blue is aimed at a very specific audience – the 'social networking addicted' kids! This surely isn't a smartphone, but does three things very well – calls, messages and Facebook. Basic looks and build quality, and the phone's hardware specs aren't anything exciting.

For ₹4950, the Vodafone 555 Blue might just be what you need to access Facebook on the cheap.

Vishal Mathur

Zotac Zbox Nano Plus AD10

A neatly packed small wonder!

ZOTAC scores another win with this mini PC. Known for packing in many features into the Mini-ITX form factor, ZOTAC has managed to up the ante with the ZBOX NANO PLUS which makes use of a Nano-ITX(12 cm x 12 cm) board. Few people are aware of the Mini-ITX form factor, even fewer will know about the nano-ITX. The glossy black surface of the ZBOX with aluminium sides seems quite similar to Apple's theme, however, this is much smaller than the Mac Mini.

Also included is a Media Centre Edition remote control and an infrared receiver.

What really caught our attention was the base of the unit. It's actually a standard VESA mount.

So if you have a monitor which accords to the VESA standard then you can attach the base onto the back of your monitor and the ZBOX NANO will easily latch onto it. You can convert your monitor into an All-In-One with this. They might as well market it as such. It features 2 USB 3.0 ports and an eSATA port too. So HD movies can easily be played via an external without any jittering. It only has a single

module in single channel mode but one doesn't need more than that for a media PC.

It's quite easy to access the memory and HDD, unscrew 4 thumb-screws on the bottom and the VESA mount plate comes off. You can easily upgrade your drive and memory capacity. One might assume that the unit could heat up considerably given the small form factor, however, the unit is surprisingly cool for the technology it houses.

There are multiple models of the ZBOX NANO available, we got the AMD model with 2 GB RAM and 320GB HDD. This is a great HTPC option due to its super tiny form factor.

Mithun Mohandas

Specifications
CPU: AMD E-350 1.6GHz; **GPU:** AMD Radeon HD6310; **RAM:** 2GB DDR3 1066MHz; **HDD:** 320GB; **LAN:** Gigabit Ethernet; **Wi-Fi:** 802.11 b/g/n; **Bluetooth:** 3.0; **Dimensions:** 127mm x 127mm x 45mm; Audio in/out, HDMI, Display Port, eSATA, 2x USB 2.0, 2x USB 3.0, Kensington Lock, MMC Slot; **Warranty:** 1-Year.

Contact
Neoteric Informatique Ltd.
Web site: http://www.zotac.com
Contact: +91-9891282522
Price: ₹00,000

7.5 / 10

Features 7.5
Performance....................7.0
Build Quality 7.0
Value for Money 8.0

ASUS Matrix GTX 580 Platinum Card

More power to the gamers

Specifications
Core Clock: 816 MHz; **CUDA cores:** 512; **Video Memory:** 1536 MB GDDR5; **Memory Interface:** 384-bit; **Ports:** 2x DVI, 1x HDMI, 1x DisplayPort

Contact
ASUS Technology Pvt. Ltd.
Email: reachus@asus.com
Web site: www.asus.in
Contact: 1800 209 0365
Price: ₹30,000

8.0 / 10

Features 8.0
Performance....................8.5
Build Quality 9.0
Value for Money 6.5

The GeForce GTX 580 is a beast in itself when it comes to performance and with ASUS branding it under the ROG series, what you get is a monster card. That the Matrix GTX 580 is factory overclocked is a given. What adds to aura around the card are the features surrounding it. First thing that strikes you is the size - its a triple slot card. Just

beneath 8-pin power connectors, you will notice three buttons which include two voltage tweaking buttons (denoted by + and - sign) for performance optimization. There's a utility called GPU Tweak which eases overclocking the card. The card glows in various colours to indicate load.

The Matrix GTX 580 is overclocked by 44MHz from its reference settings. We tested the card using an ASUS X58 Sabertooth board alongwith Intel Core i7-980X processor and 4 GB DDR3 Kingston HyperX RAM.

As expected, the Matrix GTX 580 came out with flying colours.

Synthetic benchmarks such as 3D Mark 11 gave an overall score of 2179 at Extreme settings (1080p) and Unigine Heaven 2.5 gave 41.5 FPS at 1920x1200, Extreme tesellation. The overclock gives around 10 percent increase in the scores across gaming benchmarks. Crysis Warhead gave 49 FPS at 1920x1200 at Very High settings. STALKER: Call Of Pripyat and FarCry 2 both gave a 10 per cent increase in benchmarks at 1080p. Over ASUS's own GTX 580, the Matrix GTX 580 gives about a 12-15 FPS jump in certain games on same settings.

Pricing is quite high at ₹30,000. But then, this is meant for hardcore gamers who spend the extra buck for added features.

Nimish Sawant

The power of Flash
Developers at Adobe MAX 2011 showcased Unreal Tournament III running in a web browser via flash.

The curse of the 'droid
Author Walter Isaacson claims that Steve Jobs claimed that he would use all his power to destroy android.

Wipro e.Go Aero

Netbook-like form factor, super-sized performance

The Wipro e.Go Aero 11-inch pseudo-netbook is an interesting notebook. We call it a pseudo-netbook because beneath its slim, ultraportable chassis lies hardware that is befitting any mainstream laptop. This helps the Wipro e.Go Aero deliver better-than-netbook performance in a similar shell which isn't difficult to carry along.

The e.Go is very similar to the Acer Aspire One 722 netbook we tested last month, but it doesn't have Intel's Atom or AMD's Fusion chipset, opting for a generation old Core i3 ultra-low voltage processor instead. It doesn't lack in terms of features and connectivity options either, sporting specs common for every mainstream laptop these days.

The e.Go has a glossy white plastic exterior and a textured matte deck, it sports a matte black bezel with a glossy screen. Its chiclet-sized isolated keys are good to type on, but we've seen better keyboards. Watching movies and listening to music is a pleasant experience, given the e.Go's slim form factor -- it isn't outstanding though. The performance is much better than what you'd expect on a general netbook. The laptop offers decent battery life of over 3 hours while surfing the Web over Wi-Fi.

The laptop, however, sports a tiny touchpad and a single-strip mouse button which can take a while to get used to. Its build quality isn't exceptional either. Still, the e.Go's worth considering for a laptop with netbook-like form factor.

Jayesh Shinde
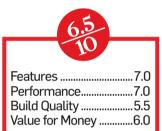
Specifications
Screen: 11.6-inch matte, 1336x768 resolution; **CPU:** Intel Core i3-380UM 1.3 GHz; **RAM:** 2 GB DDR3; **HDD:** 320GB; **GPU:** Intel HD; **OS:** Linux (Win 7 optional); **Ports:** 3 x USB, VGA, 8-in-1 card reader, ethernet, headphone, mic; Battery: 6-cell; **Weight:** 1.33-kg

Contact
Wipro Systems & Technology
Web site: www.wipro.in, egobywipro.com
Email: ecare@wipro.com
Contact: 1800-200-3456
Price: ₹35,990

6.5/10

Features	7.0
Performance	7.0
Build Quality	5.5
Value for Money	6.0

Specifications
Screen: 14-inch glossy, 1600x900; **CPU:** Intel Core i7-2720QM 2.2 GHz; **RAM:** 6 GB DDR3; **HDD:** 320GB; **GPU:** 1.5 GB Nvidia GeForce GT555M; **OS:** Windows 7 Home Premium 64-bit; **Ports:** 3 x USB, VGA, HDMI, 9-in-1 card reader, ethernet; **Battery:** 8-cell; **Weight:** 2.93-kg

Contact
Alienware
Web site: www.alienware.co.in
Contact: 1800-425-8118 / 080-2510-8983
Price: ₹94,500

7.5/10

Features	7.5
Performance	8.0
Build Quality	6.5
Value for Money	7.0

Alienware M14x

Lean, mean, portable gaming machine

In August, we reviewed the Alienware M17x and M11x, a 17-inch gaming behemoth and a pseudo-ultraportable gaming rig. For gaming enthusiasts interested in a middle ground, there's Alienware M14x, a 14-inch gaming laptop which isn't as heavy as the 17-incher and performs almost as well.

The M14x is well-moulded in the Alienware fabric, sporting an angular design with a laser-etched glowing alien logo. Its full-metal body comprising of the screen lid and the rest of the chassis meet midway with two central hinges. We aren't big fans of the hinges being so close to each other, it gives the M14x's screen a slight wobble whenever you move it. But its backlit keyboard has keys with a smooth matte finish that's great to use, and it's a similar story with the textured touchpad. The whole thing, with a 8-cell battery, weighs just under 3-kg — heavy but not bad for a mobile gaming powerhouse.

There's no doubt about the system's performance — it scored 9,181 and 12,556 in PC Mark Vantage and 3D Mark 06, respectively — one of the highest we've seen on a laptop for quite some time. Gaming was decent as well — Far Cry 2 at 1600x900, Ultra, 4xAA averaged at 31 fps, while Crysis 2 at 1600x900, Ultra averaged at 22 fps with framing. The M14x is a very good multimedia and entertainment machine, its screen is nice and bright, the onboard speakers surprisingly good. As expected, battery life isn't great — just under 90 minutes while looping a music video. Overall, a very good gaming machine well worth its price.

Jayesh Shinde

Bazaar
mini

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!

CABINET

Cooler Master Elite 311 Plus Cabinet
Price: ₹2,800

SPECIFICATIONS

Bays: ......3x 5.25-inch, 7x 3.5-inch drive
Front Ports:.........3x USB 2.0, 1x USB 3.0
Mobo form factors..........ATX, Micro ATX
Weight 5.6kg

TEST CENTRE RATINGS (All Scores out of 10)

Features............................7.0
It has a USB 3.0 port in the front and a transparent acrylic side panel which will allows you to show off your system. The 3.5-inch HDD bay is detachable.

Performance 6.0
Things were moderately warm on stock coolers. CPU delta reached 60 degrees, GPU delta reached 48 degrees celcius.

Build quality 7.0
Despite having a transparent side panel, it is quite sturdy and does not bend easily.

Value for money 5.0
Priced higher than the Elite 311 despite the only changes being an extra USB 3.0 port and acrylic side panel.

WE SAY

6.0

Cooler Master Elite 311 Plus makes for a good entry level cabinet at the price. The cabinet has USB 3.0 ports on the front which is quite a good feature to have, although we would have loved to see at least two for connecting various other USB devices. For a high end gaming rig, you do need something more than a stock cooler to keep things inside cool. We still feel that an almost ₹1,000 jump for a single USB 3.0 port and transparent acrylic sheet isn't worth it. Slightly steep at its current price, but if you manage to snag this one for ₹2400, it comes recommended as good.

PHONE

G'Five G20 Gaming Phone
Price: ₹2,500

SPECIFICATIONS

Resolution.........................QVGA, 240x320
Screen 2.4-inch
Audio..3.5 mm
Wireless..Bluetooth

TEST CENTRE RATINGS (All Scores out of 10)

Features............................. 7.5
G'Five G20 is a dual SIM gaming phone with a gamepad and amazing speakers with Yamaha amplifiers.

Performance 8.0
Its gamepad has good precision, and reactive buttons along with a 2.4-inch screen that shows vivid colors. The speakers are loud and battery draining.

Build Quality......................6.0
The body of the phone is made with hard plastics which are a little flimsy.

Value for Money...............8.5
At ₹2,500, it is an amazing gaming phone that deserves all the accolades thanks to its core features and others like Analog TV.

WE SAY

8.0

Quite the revelation, this G'Five G20 gaming phone. We didn't expect a whole lot at the price but it surpassed our expectations. The G'Five G20 has a bar design form factor with a multi-directional touch pad and a plastic numeric keypad below it. The most impressive parts of the package are the gamepad that connects to the phone via USB, and the good sound experience.

G'Five G20 portrays true dynamism in its segment, for both price and features, and also the accessories that are bundled within the package. No doubt that this is a very good phone at the price.

A6 will still be Samsung made
Samsung will still be producing the quad-core processors to be used in Apple's next iPhone, dispite the bitter court battle between the two companies.

Salted disk
Impregnating a hard disk platter with salt has been proven to increase its capacity by six times – **http://tgr.ph/nS5SRJ**

TABLET	PROJECTOR	KEYBOARD	CAMERA

Mercury MTab
Price: ₹9,499

LG AF115 projector
Price: ₹1,60,000

Microsoft Wireless Desktop 2000
Price: ₹1,650

Nikon COOLPIX S9100
Price: ₹18,950

SPECIFICATIONS

Processor...1GHz RAM...512 MB Storage........4GB with memory card slot Platform.......................................Android 2.3 Ports...Mini HDMI	Projector.............SXRD projection system Native resolution......1920x1080 (1080p) Brightness..............................1500 lumens Contrast ratio..................................30000:1 Ports..2 HDMI inputs	Connection ....2.4 GHz wireless, BlueTrack technology Security....................Advanced Encryption Standard (AES) 128-bit encryption Special features... Easy access hot keys	Display ....3-inch TFT LCD Resolution...12.1 MP Optical zoom...18X Self timer ....2 sec and 10 sec ISO range ... 160, 400, 800, 1600, 3200

TEST CENTRE RATINGS (All scores out of 10)

Features...............................6.0 At least on paper, the MTab has a good specification set. It comes wiht a 7-inch screen and a mini HDMI port.	**Features...............................8.0** Very loaded in terms of features – 2 HDMI inputs, 1500 lumens and 30000:1 contrast ratio.	**Features...............................6.0** Media centre compatible with hot keys to access frequent apps.	**Features...............................6.0** S9100 offers 25mm wide angle to 450mm telephoto combined with a 12MP CMOS sensor.
Performance ....5.5 Overall performance is average, but it has ordinary overall display quality. Sound output leaves a lot to be desired as well.	**Performance ....8.0** Delightful. Handles HD and SD content brilliantly. No audio handling capabilities though.	**Performance ....6.0** Pillow texture palmrest with well spaced out keys. Response time is quite good.	**Performance ....6.0** It shoots sharp images. With its optical quality sensor, pics appear good, all the way from 25-140mm.
Build Quality.......................5.0 It's like a previous generation tablet – bulky.	**Build Quality....................... 7.0** Looks good with solid build but the glossy finish is a dust and fingerprint magnet.	**Build Quality.......................6.5** Sturdy build with a matte black hard plastic back panel, glossy finish on the upper top half and a slip-resistant palm rest.	**Build Quality.......................6.5** It has a Nikon ED glass lens with rotatory slider controls on the top and integrated pop-up flash.
Value for Money ....6.0 The Mtab is priced attractively and is one of the most inexpensive Android tablets in the market.	**Value for Money .... 5.5** The LG AF115 does cost quite a bit, but high-performance full HD projectors aren't exactly affordable, at least not the good ones.	**Value for money................7.0** Decent build quality together with Microsoft's exclusive BlueTrack sensor technology makes this combo a great buy for the price.	**Value for money............... 5.5** At ₹18,950, it offers 18x optical wide-angle zoom which produces sharp images. But it's a touch costly compared to other cameras.

WE SAY

5.5

8.0

7.0

6.0

The MTab seems to have excellent specs on paper, but the end product is let down by the bulky form factor and the 7-inch display that leaves a lot to be desired.

It looks a lot like the original Samsung Galaxy Tab P1000, with minor tweaks in the button placement and the mini HDMI port. In the current day and age, we call that bulky! We would seriously recommend spending that extra bit of money on the Reliance 3G Tab. The 3G Tab is a far superior product overall, but it's network locked to the Reliance network. The MTab may be one of the cheapest Android tablets out there, but not recommendable.

LG touts the AF115 as a premium home cinema projector, and post evaluation, we have to agree. At ₹1.6 lakh, the AF115 costs quite a bit, but high-performance full HD projectors aren't exactly affordable. However, it only works in a set-up that involves dedicated home theatre hardware. If you're looking at building a serious cinema system in your home, the AF115 is definitely worth considering. As an alternate, you have the Panasonic PT-AE4000E. It costs ₹30k less than the LG AF115 and offers a very similar spec sheet and performance. The AF115 will please videophile movie-buffs with deep pockets.

Microsoft Wireless Desktop 2000 is definitely impressive to users interested in wireless keyboard and mouse combos with interactive user keys, comfortable palm grip and extended battery life. All of these features along with attractive price become selling points for the Wireless Desktop. It's ideal for most users today who'd rather not be constrained to their desks by wires.

Some of the major points in favour of buying this keyboard mouse combo is the encrypted connections and a host of customisable buttons. Well worth the purchase, we think.

At ₹18,950, the S9100 is a better package compared to its predecessor the S8000, courtesy a new sensor and much more versatile zoom lens.

Image quality is very good in daylight conditions and HD video footage looks great. It's also one of the fastest and most responsive cameras in its class.

The only major negative points are sub-par image quality in poor light at high ISO settings and very little manual exposure control.

A built-in GPS would've been a great addition to the camera's feature list, but if you don't require every feature under the moon, check this out.

Application compensation
BlackBerry has offered to compensate users for the service downtime with free downloads of applications worth $100

David Guetta's iPhone app
David Guetta has launched his limited edition DJAY iPhone application for $7 (₹345)
http://bit.ly/r1HpzR

Bazaar mini

BLUETOOTH DEVICE

Nokia J Bluetooth headset
Price: ₹5,570

PRINTER

Canon Selphy CP800
Price: ₹5,295

MOUSE

Microsoft Touch Mouse
Price: ₹3,999

SPEAKERS

Zebronics ZEB-SW3200RUCF speakers
Price: ₹1,650

SPECIFICATIONS

Charging time.................1 hour (2.5 hrs of talk time with 15 mins of charging) Module................Bluetooth v2.1 with EDR Dimensions............ 47.4 x 12.5 x 6.4 mm Weight 8gm	Type...Photo printer LCD display... 2.5-inch Scanning resolution.....300 dpi x 300 dpi Max paper............................4-inch x 8-inch Input capacity................................36 sheet	Connection ....USB 2.0 wireless Touch .... Three finger Battery ....2 x AA alkaline OS.. Windows 7 Wireless Range................................30 feet	R.M.S.....................................20W + 12W x 2 Support.................USB and memory card Configuration...2.1 Remote...Yes Warranty..1 year

TEST CENTRE RATINGS (All scores out of 10)

Features..............................7.0
The J has echo cancellation, noise reduction, voice notifications and universal compatibility.

Performance 7.0
The audio clarity is crisp and loud. Pairing is a simple process. There's an "Always Ready" feature for calls.

Build Quality.......................7.5
The chrome exterior gives it a blingy look. Good build quality, but will be prone to scratches and fingerprint smudges.

Value for Money 6.0
Good performance, shiny looks, but we believe this is just too expensive for a bluetooth headset.

Features..............................7.0
This one offers quite a bit for a photo printer. It can take commands from various sources.

Performance 7.5
We like the richness of the colours. Good speed too – one postcard size photo print in 1 min 18 seconds.

Build Quality.......................7.0
The Selphy CP800 has good build quality. The glossy finish will be a pain to maintain, though.

Value for Money 6.0
For this price, you can get a bigger HP Photosmart printer that can do a lot more. But Selphy gets points for its tiny form factor.

Features..............................6.0
It enhances the Windows 7 navigation experience by allowing easy switching between tasks and using gestures.

Performance 5.5
It has quite interactive config steps with highly intuitive and precise swipe gestures.

Build Quality.......................5.0
It has a sleek matte black design. It hardly manages to impress in ergonomics with its weight and form factor.

Value for money...............4.5
Expensive for what it offers right now, but future-proof.

Features..............................6.0
It has multiple audio sources – FM Radio, USB, 3.5 mm and memory card. Good collection.

Performance 6.0
Good audio clarity and decent enough bass punch. Overall, good audio quality. Remote behaves well.

Build Quality.......................6.5
Keeping the price in mind, we found the ZEB0SW3200 build quality to be quite satisfactory.

Value for Money 7.0
For this price, the performance is quite acceptable. Not a bad deal to connect to your PC and use with a USB occasionally.

WE SAY

6.5

The J is an undoubtedly weird looking headset. From some angles, it actually looks like a faucet! However, its performance is excellent. We loved the call quality and the clarity — usually an incompatible combo. Pairing is a simple process. What impressed us was the battery life – about 12 hours. However, the codes to activate and deactivate certain features follow the "press call key for xyz seconds" pattern.

There are just too many of them to remember. The price is quite steep, considering that for a bit more, you get the Plantronics Discovery 975 with a carry case and battery integrated for charging on the go.

6.5

The Selphy CP800 is just a photo printer. That fact is belied by its tiny size and the inability to slot an A4-sized sheet into it!

However, it will print out images on postcards, labels etc. You can print from multiple inputs – USB, memory card and even directly off a camera. The colour settings can be tweaked between neutral, vivid, sepia, black and white etc.

The Selphy CP800's printout speeds are impressive. One postcard-sized colour image was spat out in a minute and 18 seconds. You may also get an HP Photosmart AIO for this price that can do a lot more, but this one isn't too bad either.

5.5

With Windows 8 around the corner and the uncertainty of its compatibility with the mouse, at ₹3,999, the Touch Mouse is definitely one for the future. But right now, it has risk attached to it. That risk is to understand whether you're overspending at the mouse's current asking price, considering the heavily touch-focused Windows 8, which only Microsoft can confirm whether this device is completely compatible with. We recommend it for general purposes to any Windows 7 user.

We like the mouse's touch input and think it will be a future trend, but we're not too sure about the now, the present.

7.0

These Zebronics speakers are a 2.1 channel type. While it has a very complicated name that doesn't really roll off the tongue, the performance is quite satisfactory.

We quite liked the Zebronics ZEB-SW3200RUCF's audio clarity, and the bass punch was quite satisfactory. However, if the woofer is configured to any more than 80 per cent, the bass becomes boomy. Any less than 50 per cent and the bass doesn't really have an effect. All in all, this is a speaker set that you can use with your PC, for occasional FM use and for plugging in a music-filled USB storage devicefrom time to time.

{devworx}

Dennis Ritchie passes away
Dennis Ritchie, the computer scientist who pioneered the C programming language and UNIX operating system, passed away on October 13

Django:
Views and Templates

Last month we learned how to get a Django web site up and running, we'll now look at the front end – the very look and feel of your new creation!

Kshitij Sobti
kshitij.sobti@thinkdigit.com

The first half of this tutorial was published in the last issue of Digit, so if you haven't read that yet, check it out at **(bit.ly/digit-django)**. We've covered the installation procedure for Django and its prerequisites, and created a basic Django site too.

How Django works

It might seem a little late to cover this, but you need to understand how Django works, especially the tasks that happen between intercepting a URL, and pushing the appropriate content to the user. In Django, this happens in three steps:

1. Django matches the URL you're visiting against a number of predefined patterns. In our example, the pattern could be "book" followed by a book number as "/book/12" or "/book/9". So in our case it is "/book/<number>". Similarly, we could have "/person/number" and "/booklist" and "/personlist" all referring to different pages. Depending on which pattern is matched, the control is passed on to the view.

2. Different views are defined to deal with different types of data. A book view will take the parameter from the URL from the previous step i.e. the book number and fetch the data that needs to be displayed for this view.

3. The view will then provide this data to a template, where this data will be filled in according to the parameters specified in the template; and finally dispatched to the person viewing the page.

For example, when someone visits **http://mysite.com/book/11** Django will match it against a set of patterns, and find that it matches the `book/<number>` pattern. It will then send the book number from the URL to the view, which will pull in data corresponding to the book. This data will then be filled in as defined by a template, and the end-result will be shown to the user.

The basic Django view

STEP 1: Matching URLs

In the first part, we asked you to open the urls.py file and follow the instructions in that file to enable the admin panel. Now let us take a look at what those instructions actually did. This is what your urls.py file should be like (sans comments):

```
from django.conf.urls.defaults
import patterns, include, url
from django.contrib import
admin
admin.autodiscover()
urlpatterns = patterns('',
    url(r'^admin/',
include(admin.site.urls)),
)
```

Pay particular attention to the urlpatterns bit of the code, since it is defining which patterns to match, and what to do with them. This bit of code

tells Django that if any URL path begins with "admin/" it should immediately be passed to the admin module of Django, where it will further look at the part of the URL to the right of "admin/" and show the appropriate content.

Let us go ahead and add two more patterns here, one for the index page, and the other for an individual book page:

```
url(r'^$', 'books.views.
index'),
    url(r'^book/(?P<book_id>\
d+)/$', 'books.views.book'),
```

The way to define patterns here is a simple semi-standard that you may have encountered before – Regular Expressions. You can refer to it at **(bit.ly/digit-regex)**. You will need some knowledge of Regular Expressions for this bit.

To give a basic idea of what is happening here:

- `^` refers to the starting location, and $ refers to the ending location
- The "()" brackets around any pattern mean any condition that matches that pattern needs to be captured in a variable while the "?P<book_id>" provides the name of the variable. So a combination of the two tells the RegEx engine to capture the pattern as "book_id".
- \d+ tells the regex engine that it needs to capture one or more digits. The "\d" identifies digits, while the "+" means one or more.

The end result is that the pattern "^book/(?P<book_id>\d+)/$" will look for any URL that has a "book/" followed by a number, and if a match is found, it will capture the number part of that URL as the "book_id". This pattern will NOT match invalid URLs such as "book/12b" or "book/abc" but it will match "book/0" so you will need to check for that.

If you want to, you can have more complex patterns, which include a date or time or multiple parameters that come together to identify a resource.

The 'books.views.index' specifies the view that needs to be called in case the pattern is matched. We are yet to create this view though. This view will also be passed by any parameter captured from the URL; so in the second case, the view 'books.views.book' will be passed to the "book_id".

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If you're a passionate software developer and have a flair for writing, we're waiting to hear from you today! Write to **editor@devworx.in** with a sample article of your choice   **Developer corner**

STEP 2: The View

Now that we have defined what to do with our URLs, we need to handle them when they come to the view. The view has to pull in data from the database based on the part of the site being viewed, and display them to the end user. However, how this data is formatted is defined by a template. Open your views.py file in the books folder; it should be empty, but we'll soon fix that.

The Django template book page

Let us start with just this bit of code:

```
def book(request, book_id):
   return HttpResponse("The id
of the book is %s." % book_id)
```

Now go to 127.0.0.1:8000/book/11 and you will see the id of the book on the page. This, as you'd agree, is useless. So let's make it do something. We will make the index page list all the books.

As you can imagine, this is quite cumbersome, especially as sites become more complex. Let's see how templates make this better. First we will create the views that use templates; replace the views.py contents with the following:

```
from django.shortcuts import
render_to_response
from models import *

def index(request):
    book_list = Book.objects.
all()
    persons_list = Person.
objects.all()
    return render_to_
response('books/index.html',{
       'books':book_list,
       'persons':persons_list
       })

def book(request, book_id):
    book = Book.objects.
get(pk=book_id)
    return render_to_
response('books/book.html',{
```

```
       'book':book
       })
```

Here is how this works:

- The function render_to_response is a shortcut that loads the template (here 'books/index.html') and passes all the parameters after that. Here, it will pass along the list of books and persons as 'books' and 'persons', respectively. This data will be used by the 'index.html' template.
- Similarly for the book function, the Book.objects.get function retrieves a single book based on the supplied parameter. Here the parameter is 'pk' or the primary key, which it matches against the book_id from the URL. The matched object is passed to the 'book. html' template as 'book'.
- A directory called 'templates' must be created under your project directory, and the 'index.html' and 'book.html' files will be placed in the 'books' subdirectory inside that folder.

STEP 3: The templates

Powerful as they may be, Django templates don't use Python. The template language Django uses is not a programming language, but a presentation language. It can access variable and loop through arrays, but it can't call functions in your code, so design your application likewise.

Let us take a look at how we might make out "index.html" page; we are omitting basic HTML structure here, but feel free to add it:

```
<h1>List of books</h1>
<ul>
{% for book in books %}
<li>{{ book.name }}</li>
{% endfor %}
```

This will show a nice header "List of books" followed by the actual list. Here is what's going on:

- Django tags expressed as {% tag %}. Here we use a "for" tag to iterate over the list of books. This syntax might seem familiar to those who have used other programming languages.
- The "for" tag will repeat the contents between it and the "endfor" tag on each iteration. Here it will repeat for each book in the database
- You can print variables by using this

syntax: {{ variable }}. Here we print the name of the book as {{ book.name }}.
- You can apply filters to variables. For example {{ book.name|lower }} will output the name of the book converted to lower case. There are many useful filters; another example {{ size|filesizeformat }} will convert the number stored in 'size' to a filesize representation i.e. in KB, MB etc.

The Django template index

Let's make this a little better and actually have each book link to its page. Replace contents of the for loop with: `<li><a href="/book/{{ book.pk }}">{{ book.name }}</a></li>`

You can as easily create a list of all persons too by adding:

```
<h1>List of people</h1>
<ul>
{% for person in persons %}
<li>{{ person.first_name }} {{
person.last_name }}</li>
{% endfor %}
</ul>
```

Creating the 'book.html' file is as simple:

```
<h1>{{ book.name }}</h1>
{% if book.borrowed_by %}
<p>Borrowed by: {{ book.bor-
rowed_by }}</p>
{% endif %}
{% if book.borrowed_on %}
<p>Borrowed on: {{ book.bor-
rowed_on }}</p>
{% endif %}
```

Hopefully this will need little explanation. It displays the book name as the heading, the name of the person who borrowed it and the date on which it was borrowed. The latter part will only be displayed if they are set in the first place. ▪

Tech@Work

NVIDIA 3D Vision 2
NVIDIA 3D Vision 2 introduces a new display technology called NVIDIA 3D light boost which should make your 3D experience brighter.

Glass Off
Apple will launch an application called the 'Glass Off' which will help people lose their reading glasses.

MAX 2011 in a Flash!

The latest news from Adobe MAX 2011, and how it will change your digital life!

Nash David
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Adobe MAX 2011 is a yearly event that serves as the launchpad to announce revisions to Adobe's product offerings; including the Creative Suite, currently in version 5.5. It's an event with participation by designers, developers, customers and employees from across the globe. It's significant because it gives a feel of the vision, and innovation in a company like Adobe. Given its influence on the web, it is meant to be closely followed.

The general consensus among tech influencers (in the West) is that tablets would revolutionise the way we consume content. In recent years (this is less than 3 years that we're talking about), the web and communications media have changed manifold. Steve Jobs, who'll be missed, announced the iPad in 2010 and revolutionised the way we consume, experience and share information. What tablets really revolutionised were the way applications are designed, and to a significant extent, it also enhanced the way standards were being looked at. UI and UX were terms that existed for a long time; but suddenly spiraled into popular vocabulary as a result of the phenomenal rise of Apple. Well, agreed, we're reporting on Adobe MAX 2011, so why discuss Apple?

It's significant because Steve Jobs, while he was launching his gamechangers stated that Flash won't be supported by them. What followed seemed to be war between Apple and Adobe. Although there was nothing of that sort, the world seemed to fuel such a spat to all possible extent. Soon we were hearing about the fall of Flash. Then came HTML5. The rising market share by Apple prompted other equipment manufacturers to launch their own tablets. We've seen Android, webOS, Windows and QNX

among the most prominent platforms that have been doing the rounds. While it was getting better for the consumer, the developer wasn't really happy with the situation. Coding for each platform needed investment.

You had to develop for Apple's iOS platform using its SDK using an Apple product such as a Mac within Apple's closed environment. Later, developers realised that Android is growing phenomenally too, and not one wanted to miss out on market share. Applications now had to be ported across platforms. Hiring separate teams meant investing in additional time and resources, thereby increasing cost.

CEO Shantanu Narayen with CTO Kevin Lynch in a Q&A session

Adobe, the game changer
That's when Adobe announced Flash Builder. You can now create your application that will run natively in an Adobe runtime (AIR) agnostic to the underlying operating system. Whether you want to cater to the Android Marketplace, Apple App Store, or BlackBerry App World, you can deploy apps to all of them with the assurance that they will run smoothly, from within the same code base. You just need to develop once. What we were sceptical about was the hype surrounding HTML5 as a Flash killer. This was a key question we sought an answer to. There were several announcements at MAX.

Announcements galore
Adobe began with a strong message. Flash or HTML5, Adobe will support both! They also announced their highest ever donation to the Mozilla Foundation. In addition to this, they acquired Nitobi, makers of Phon-

egap. Why is this significant? Well you can now develop for additional platforms using HTML5, CSS and JavaScript. Phonegap works by using these three technologies. It supports iOS, Android, BlackBerry, webOS, Symbian and bada. The most significant highlight of this move is that Adobe is promoting Phonegap further as an opensource product. The next announcement was also an acquisition of web font company Typekit.

With the acquisition of Typekit, you can now offer various fonts for your web site or application users. WebKit enables its font deliver mechanism by hundreds of servers globally located.

The groundbreaking annoucement, however, was their thrust on Cloud computing. Adobe Creative Suite 5.5 will have 20 GB of Cloud storage and will sync your work across desktop, tablets and mobile devices. Besides this, Adobe launched 6 new touch based applications, including Photoshop Touch that enables performing complex operations possible only on desktops until now. **d**

A 3D iPhone5?
An iPhone was spotted, which looks much like a iPhone 4 and features dual cameras, which are usually used to capture stereoscopic 3D footage

Compex muscle stimulator
A DJO global brand, it's a wireless device that was recently used during the Tour de France

Industry connect

Anup Murarka, Director, Product Marketing, Flash platform, had a detailed discussion with us on the latest developments on Flash, Flash Builder and tools by Adobe. This is a very short excerpt of the elaborate discussion. You can read the entire interview at devworx. Go to bit.ly/digit-anup

With the acquisition of Phonegap, will Flash Builder be taking a different path in the future?

No, because I think they really solve different problems. Flash Builder is a tool which we have today that serves developers who build Flash-based applications. I think what changes is developers now have the ability of using multiple and different technologies from Adobe to solve all their application challenges. It's more of a framework, so it's more analogous to whatever technology you publish using Flex.

So there will be Flash Builder, Flex, and also Phonegap as offerings from Adobe?

Yes. Well, Phonegap is open-source.

And it will stay that way?

Yes. In fact, Adobe has already taken necessary steps. Nitobi has already submitted all of Phonegap's system to the Apache Foundation, which is basically a commitment, and they did that with Adobe's complete support. So it's an open-source project, and it will remain an open-source project.

Adobe has products such as Muse and Edge. What happens to Dreamweaver going forward?

Think of our portfolio as solving individual challenges or problems separately. Muse is for a specific category of creative professionals that don't have experience in writing HTML or JavaScript code. They have experience in using tools such as InDesign. So in order to build a web page

Anup Murarka

with a design background from say, print experience, tools such as these help. The Edge product is similarly about creating animations, and about moving objects on a web page. But done with a UI that is very familiar with a movie producer. Dreamweaver is still another product. It's a different tool. In this scenario it's about what a web producer has to go through. All the fine tuning and modification is done in Dreamweaver. Just as the web has grown more complex, even applications have grown more complex. Rarely is a web project executed by just one person any more. All these products support different roles.

We also spoke to **Lori De Furio,** Product Marketing Manager, Acrobat Group, Adobe Systems. Read the complete interview at bit.ly/digit-lori

There are so many functionalities available in Acrobat that are only exploited by a limited audience. The lay user, I think, is fine with just Adobe Reader. Could you share some information on Acrobat?

That is an interesting point, and you're right. So many people say to me, "I have Adobe". What do you mean? What they mean is that they have Adobe PDF Reader. They are able to consume PDF, they're maybe able to fill a form, maybe able to add a sticky note, but that is the extent. So, you're right, when people think of Acrobat, they think, "Oh, I can use it to make PDFs". The really important functions that I would like to share with you, again to help improve productivity, to help reduce paper, they're built in work flows. One is for forms, so I

Lori De Furio

can actually take a form or even scan a paper, make it fillable. Acrobat can do that and distribute it to all of you. You can fill it in with a free reader.

Could you give us an example of this?

We have a function that is available in Acrobat and is called a portfolio. You know if you think about this idea of taking all these files and putting them in a folder, it keeps them as separate files, but wraps them in a PDF wrapper. So, I might have a schedule, price list or video from the CEO, we've seen companies use this for HR and boarding, a new employee comes to the company, they have forms to fill out, all sorts of guide books to teach them where to go. Put it in a portfolio, it's a pdf wrapper, and each piece is in there

individually to work with – a video from the CEO, a welcome to the company, the form for this man – and the thing that is so nice about these portfolios is that they're available in Reader. So I create them in acrobat but I can distribute them.

So it's like a compression tool?

It does compression, and uses the same compression algorithm as Winzip, you can think of a portfolio as a ZIP file with a UI to tell you what is inside. Because, when you look at ZIP, you see a list of files. This allows you to put the look on it. I can preview what is in the portfolio so much easier.

What about Acrobat for mobile devices?

Well, there is no full Acrobat service for mobile devices. Although, we do have an Adobe Reader. We're continuing to try to enable as many features for mobile devices, but it's just not possible. Adobe Acrobat is more of a desktop product right now rather than mobile.

FIFA 12

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FIFA 11, despite bringing out a myriad of reactions from us, wasn't a significant enough upgrade over its predecessor to warrant a purchase, even if it was drastically different.

EA Sports has looked to change that with FIFA 12, as one might have noticed with all the pre-release "best FIFA ever" talk. We dismissed that as the perennial hype machine, but were we right to?

In their quest to get ever closer to realism, EA Sports has focused on a particular aspect of football each year. Two years ago, 360-degree dribbling was introduced, and last year it was the passing system that got a revamp. This year, it's the turn of the aspect that has stayed pretty much untouched for more than a decade now – defending.

Tactical Defending, as the feature is called, takes the focus away from pressing and closing down to a more positioning and timing-based system. This has been done via a change in the control scheme. The press button is now the contain button, which makes a defender try limiting a player's movements instead of homing in on his target. It obviously takes some getting used to, but defending becomes a very rewarding experience.

The game pace has been lowered too and that makes a huge impact on the next feature – Precision Dribbling. It aims to give you more control over how your player dribbles in close quarters and give players a lot more time on the ball, the lack of which was one of our primary complaints about previous editions of FIFA.

Our reaction to the new Impact Engine, which changes the way player model physics is handled, isn't as positive though. This addition hoped to redefine interaction between the players on the pitch which earlier depended on canned animations. It works pretty well for the most part, making collisions look quite painful, but on occasion ends up causing some unintentional laughter or rage with some pretty hilarious or unfortunate outcomes.

Offline game modes haven't changed much, with the Career Mode where you can take on the task of being a Player, a Player-Manager or a Manager and craft your career. Unfortunately, what has also not changed much is the fact that it's riddled with bugs.

Online mode carries a few minor changes, like having you select your team and difficulty level before searching for opponents, instead of the other way round. Head-to-head is really broken because of a very unfortunate exploit which means we're pretty much facing the AI online, which is kind of stupid; if we wanted to do that, we'd just play offline.

Presentation is just what we've come to expect from EA Sports, though it hasn't changed much from FIFA 11. Alan Smith replaces Andy Gray as Martin Tyler's partner. Clive Tyldesley and Andy Townsend are also present as the voices for cup fixtures.

The Final Whistle

FIFA 12's gameplay is extremely solid and is only a few Impact Engine tweaks away from being excellent, but the numerous bugs and issues that plague the game are quite the mood killers. One can only hope patches are on the way, but we've seen EA Sports do this year after year, and there are no signs that lead us to believe that this year is any different.

The bottom line, though, is that FIFA 12 is a great game when you get on the pitch and actually play football. The off-the-pitch issues are what plague it most, which sort of makes it realistic and close to real-life, just not in a way EA Sports – and certainly not the way the fans – expected it to. ✷

Pros:
» Tactical Defending is a great addition
» Precision Dribbling gives players a lot more time on the ball
» Nice, solid presentation

Cons:
» Impact Engine is a bit wonky in places
» Both Online and Offline game modes are plagued with bugs

Details:
Developer: EA Canada
Publisher: Electronic Arts
Genre: Sports/Football
Platforms: PC, Xbox 360, PlayStation 3
Also available on: Wii, PSP, 3DS, iOS, Mac OS X, PlayStation 2, PlayStation Vita, Xperia Play.
PEGI Rating: 3
Price: 999 (PC), 2,499 (Xbox 360, PlayStation 3)

Ratings:
» Graphics: 8.0
» Sound: 9.0
» Gameplay: 9.0
» Game Modes: 6.0
» Value for Money: 7.0

THE SKOAR | ! |
8

God of War:
REMASTERED, UNCHAINED, REAL

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God of War needs no introduction to its legions of fans, but for those not aware, it's one of the most successful franchises as

far as PlayStation goes. Here, the series' portable entries, God of War – Chains of Olympus and God of War – Ghost of Sparta have been ported to the PS3. And boy oh boy, they do pack in some punch, with bumped up HD visuals, full stereoscopic 3D support, 5.1 surround sound with DTS support, PlayStation network trophies and the unabashed glee in killing something 12,72,639 times your size with your bare hands.

A solid storyline was never a forte of the games in this series. The story, it seems, is merely in place to give a semblance of logic to the mindless button mashing. Chronologically, Chains of Olympus takes place before God of War, and Ghost of Sparta takes place before God of War II. Kratos is his usual self – angry, seeking revenge and murdering

gods. Although, who gives a hoot about the story as long as you have hordes of baddies to butcher? That brings us to the villains, we don't see any variety in the bosses. Nevertheless, everything that Kratos does on screen – be it puncturing a Cyclops' eye, beheading a minotaur, strangling a Medusa, de-winging a harpie or harpooning a hoplite – feels epic. There are also some puzzle elements involved, which are reminicent of Prince of Persia at some level. On the whole, the gameplay is more than satisfactory. Kratos gets a wide arsenal of weapons and magical abilities in both the games, with the Blades of Chaos being used most often. Other weapons and abilities are used merely when the story or environment expressly calls for them.

Quick-time events feature in both the games and are mandatory as far as bosses are concerned, where once weakened, a prolonged quick-time event will lead to Kratos gutting said foe in a deliciously gruesome manner. A few quirks present with the PSP versions are also ironed out. Dodging or rolling, which earlier required the player to hold down both L1 and R1 and then use the left analog stick, was a tad difficult to grasp. These controls are now mapped to the right analog stick, making gameplay a breeze. But one complaint is that we need to make it all the way back to the XMB to switch between games.

Graphics are remastered in razor-sharp High Definition for PS3 in 1080p at a comfortable 60fps, but they still let you down in some places. The cut-scenes have also been re-rendered in full HD, which was much needed after the creators had missed doing that in the original God of War Collection. As far as sound goes, Kratos seems to think that everybody he encounters, including us, are absolutely deaf, so he literally shouts out his dialogues. The background score is opera-ish with a focus on vocals and heavy orchestration.

Two God of War games for under 2,000 bucks is not a bad deal at all. The added DLC that were released for the original games on PSP and support for PSN trophies are icings on the cake. Each game provides a decent 6-10 hour gameplay for an average gamer, which increases after you unlock arenas after completing the game once. God of War fan or not, this game definitely needs to be a part of any self-respecting PS3 gamer's compendium of games. **Read more at** http://bit.ly/rdmBYr ✱

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Formula One is a sport considered by many aficionados to represent the pinnacle of the motor racing experience. The cars themselves are marvels of precision engineering – every aspect of the vehicles is fine-tuned to an almost impossible degree of perfection. A sport where an ounce of extra weight might mean the difference between finishing on the podium or among the also-rans. Codemasters have set themselves quite a lofty goal as they try to recreate this experience and, all things considered, have succeeded to a very large extent.

Start your engines!

Visually, the game has received a very subtle but noticeable boost to the graphics engine. Compared to its predecessor, the colours are brighter now and the environments don't look as drab and washed out as they used to. The cars are also much shinier and have far more visual detail. The steering wheels are now unique to each car and have been modelled to represent the exact design and layout used by each team. Subtle animations such as the vibrations of the front wing as you take a corner at speed, smoking tyres as you lock your wheels up in an attempt to hit that apex and the driver's interaction with his steering wheel as you adjust your car settings or engage DRS or KERS go a really long way towards improving game immersion.

The audio has received a major boost as well. The engine notes are far more accurate and you can actually tell when to change gear by just listening to the engine notes, or even "hear" the wind whistling by your ears as you go hurtling down a long strait with your DRS flap wide open!

F1 2010, while a good game, always felt a little bland. The damage was very minimal and the start of a race was nowhere near as chaotic as that of an actual race. The engine notes were quite tame and you could go flying around any corner safe in the knowledge that you would not spin out that easily, despite turning off the driving assists. F1 2011 has sought to remedy all that. The car handling is far more realistic now, you can't just go pedal-to-the-metal the entire length of the race. Finer, gradual inputs are rewarded and even required at higher difficulty levels. In fact, playing the game with just a keyboard will be an exercise in frustration when the driving assists are off. A dab of the throttle as you navigate a steep curve and you'll end up facing the way you came. At the very least, you would require a gamepad with analog triggers to ensure you have the car under control at all times. The wheels actually lock-up under heavy braking and you will need to monitor them for flat spots as well as tyre wear. Your engineer is also more helpful this time around. He actually provides you with relevant information as you race and doesn't pester you with irrelevant inanities.

One slight niggle here is still the damage modelling. While an improvement over the original game, it is still nowhere near as good as it should be. F1 cars are made of some of the strongest and lightest materials available, but they are also incredibly fragile and sensitive as well. This just doesn't come across in the game. You can happily go around bumping into walls and other cars and only suffer the loss of the front wing.

The game plays out very much like its predecessor, you are a rookie driver starting your F1 career off in one of the lesser teams. You work your way up by completing mission objectives throughout your career and receive vehicle updates and team offers based on your performance and handling of the press. A very nice new addition here is the inclusion of support for an actual human team-mate as you go through your career. The two of you can play via split-screen, LAN or online.

Parc Ferme

Overall F1 2011 is a worthy upgrade over its predecessor. Think of it as upgrading from Windows Vista to Windows 7. Both of them essentially share the same core, but the slight tweaks and upgrades put F1 2011 in a different league altogether. The formula isn't perfect yet and it is still far from delivering the definitive Formula One experience, but judging by the way Codemasters is working on it, they are getting there. ✳

Nokia 800 ad leaked
Nokia will presumably be launching its first Windows 7 Smartphone, the Nokia 800

No more drunk driving
Tru Tech Technology has developed a kit which measures the exact amount of alcohol content in a driver's body.
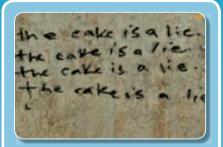
Gaming Memes
A bunch of internet phenomena that gaming can proudly, or not so proudly, call its own...

All your base are belong to us
The Mega Drive version of Zero Wing had a badly translated opening sequence of dialogues, with one of them being "All your base are belong to us". Another one was "For great justice", which is now a comical motivational line used before mundane tasks.

CATS: ALL YOUR BASE ARE BELONG TO US.

The cake is a lie
Used to tell people that what they're being promised at the completion of an objective is nothing but a lie. From Portal, where GlaDOS promises the player cake before every task. The player later stumbles across messages on the walls of the research facility which say "the cake is a lie".

Leeroy Jenkins
Used when someone trying to be a hero destroys teamwork. From a World of Warcraft video where a player gets his whole party killed by disregarding their elaborate plan and instead choosing to rush in alone while yelling "LEEERROOOYYY JENKINS!!!", his character name, as a battle cry.

Giant Enemy Crab
From the disastrous Sony press conference at E3 2006. While the game Genji 2 was being hyped as featuring battles that actually happened in Japanese history, gameplay footage featuring a giant enemy crab as a boss was playing in the background. Gameplay descriptions also included attacking its weak point for massive damage and real-time weapon changes.

GIANT ENEMY CRAB — ATTACK ITS WEAK POINT FOR MASSIVE DAMAGE!

In ur base
When one Starcraft player asked his opponent where he was, he was greeted with a reply that said "im in ur base, killing ur dOOds". A screenshot was posted online and it became a catch-phrase indicating utter humiliation for anyone at the receiving end. The sentence was also very exploitable, and that resulted in loads of image macros.

OMG ZERG RUSH! KEKEKE!
The Zerg race in Starcraft take less time and resources to produce at the start of the game, leading to players controlling other races being attacked en masse very early in the game. The origin for this was a conversation between two Starcraft players, of which the Zerg-controlling player replied with "KEKEKE". Used to describe large crowds, or anything that has superiority in numbers.

Angry birds film?
After tremendous success with their game,
Rovio has confirmed that a big Hollywood
movie is on its way.

PS Vita rolling out
PlayStation Vita is all set to hit
Europe and consequently India on
February 22, 2012.

Community

The seed that bears the fruit

If you guys remember, we gave away a pack of seeds with our
June 2010 anniversary issue. This pretty tree has sprung out
from those very seeds which Anirban Chakraborty got with his
Digit issue. His hard work paid off and after more than a year he's
a proud owner of a sprawling Cassia Siamea tree.

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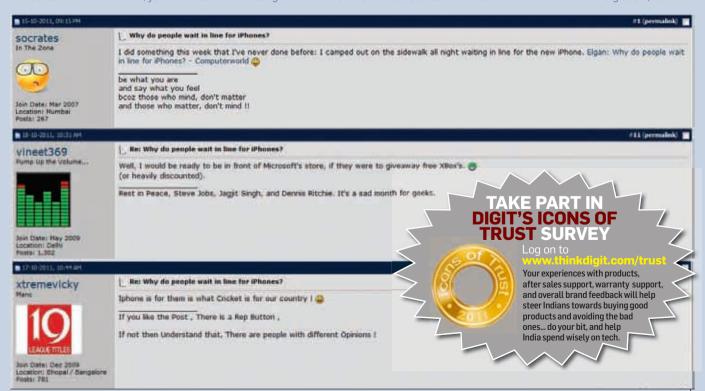Expert buying advice and some awesome offers

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Community of software programmers who enjoy
writing code and want to grow their career in
software development

**Head over to www.thinkdigit.com/forum, for some of best discussions, buying advice, and user reviews. Of course, you will
meet like-minded (and not so like-minded) geeks, leading to some of the most constructive arguments you'll ever have.**

Check out this thread below asking a genuine question. What is it about the iPhone that makes buyers stand in line for hours at a stretch?
But it's not all forum talk, you'll find some interesting info and much more. Head over to the thread via this link www.thinkdigit.com/forum

socrates
In The Zone

Join Date: Mar 2007
Location: Mumbai
Posts: 267

15-10-2011, 09:15 PM   #1 (permalink)

Why do people wait in line for iPhones?

I did something this week that I've never done before: I camped out on the sidewalk all night waiting in line for the new iPhone. Elgan: Why do people wait
in line for iPhones? – Computerworld

be what you are
and say what you feel
bcoz those who mind, don't matter
and those who matter, don't mind !!

vineet369
Pump Up the Volume...

Join Date: May 2009
Location: Delhi
Posts: 1,302

18-10-2011, 10:31 AM   #11 (permalink)

Re: Why do people wait in line for iPhones?

Well, I would be ready to be in front of Microsoft's store, if they were to giveaway free XBox's.
(or heavily discounted)

Rest in Peace, Steve Jobs, Jagjit Singh, and Dennis Ritchie. It's a sad month for geeks.

xtremevicky
Mans

Join Date: Dec 2009
Location: Bhopal / Bangalore
Posts: 781

17-10-2011, 10:44 AM

Re: Why do people wait in line for iPhones?

Iphone is for them is what Cricket is for our country !

If you like the Post , There is a Rep Button ,

If not then Understand that, There are people with different Opinions !

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ones... do your bit, and help
India spend wisely on tech.

Understanding Game Ratings

When you're buying games – be it for your kids or for yourself – the game ratings on the packaging let you know what to expect from them in terms of content. If you don't want to be shocked yourself, or let your kids play stuff you don't them going near, get clued in on the different standards and game ratings you're likely to encounter.

ESRB

The Entertainment Software Rating Board is a self-regulatory organisation that issues ratings for games and entertainment software that are released in the United States, Canada and Mexico. This is also the rating system that appears most frequently at the beginning of video game trailers and previews on the internet.

Ratings:

The ESRB uses letters for its ratings.

 These games have pretty much no offensive content and are safe to be played by very young children. Educational games and games featuring characters like Nemo and Winnie the Pooh usually fall under this rating.

 Games rated E might contain extremely limited cartoon violence, if at all, and are hence safe for most kids to play. Most sports games and sim racers fall under this category, as do franchises like Mario and Little Big Planet.

 As the name implies, these games are considered unsuitable for children under 10 years of age to play because of mildly suggestive themes, the possible inclusion of blood, violence and mild

CERO

One of the two organisations that rates video games in Japan, CERO only rates games released on consoles. Its ratings are based on alphabetic levels, in a manner much like ESRB's. The five levels are **A** (all ages), **B** (12 and above), **C** (15 and above), **D** (17 and above) and **Z** (18 and above only).

language. Think of it as the video game equivalent of the Parental Guidance rating for movies and TV shows.

 Considered safe for people aged 13 or more, this rating is given to games that feature a lot more violence, suggestive themes, gambling or rare use of mild language. Recent examples of games with this rating include the Uncharted series and Batman: Arkham Asylum.

 These games are very likely to have copious amounts of sexual themes, blood, violence or foul language. Several US retailers require Age Identification to sell games with this rating to people, something that is not followed here, so be on your toes. Call of Duty, Halo and Grand Theft Auto games fall under this category.

 A no-brainer, these games are only to be played by adults. Expect nudity, extreme violence or excessive foul language. These games are extremely rare though, because console manufacturers usually don't allow games rated AO to be published on their platforms. GTA: San Andreas and Manhunt 2 were toned down once threatened with this rating.

 Games under this category have been submitted to the ESRB for rating, but don't have one yet. This is usually only found in pre-release promotional material like trailers and ads. Once rated, the material has to be changed to reflect the actual rating.

PEGI

The Pan European Game Information rating covers games released in Europe, and are the

ratings you're most likely to encounter here in India, because we fall under the PAL region for video games.

Ratings:

PEGI uses five age categories and eight images that describe in-game content. The age categories are self-explanatory, really.

| All ages | 7+ | 12+ | 16+ | 18+ |

Descriptions:

In addition to the age ratings, PEGI also provides content descriptions in the form of eight images that make it onto the packaging if that type of content is present in the game.

Violence, blood and death

Profanity and general Bad Language

Disturbing or frightening images

Sexual attraction, intercourse, suggestive clothing or nudity

Illegal drugs or fictional equivalents

Includes betting of virtual money

Discrimation on the basis of race, ethnicity, gender or sexual preferences

Contains online gameplay, the experience of which usually doesn't factor into the age rating