

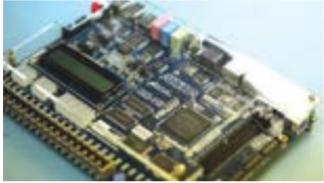
## Why Intel bought Altera for \$17 bn ?

**I**ntel last year acquired FPGA-maker Altera for \$16.7 billion in cash, the chipmaker's largest purchase in history. As it turns out, Microsoft played a key role in Intel's decision to make the purchase.

A recent feature from Wired explains how, engineers within Microsoft attempted to sell then-CEO Steve Ballmer on an idea called Project Catapult.

Doug Burger explained that in the near future, the world's top Internet giants would be running web-based services so complex that they'd require a whole new architecture to run them.

Project Catapult, which would use field-programmable gate arrays (FPGAs), was Microsoft's answer to that as-yet-realized conundrum. FPGAs, which have been around for decades, are programmable chips that engineers only recently realized could be useful in accelerating online services as they can be programmed to perform a very specific job and be very efficient about it. Microsoft's FPGAs come from Altera, the company Intel purchased last year. In fact, Microsoft is the reason Intel bought Altera but not the only reason. According to Intel executive vice president Diane Bryant, a third of all servers used by major cloud providers will utilize FPGAs by 2020.



# Smartphone microscope developed by Stanford

A new 3-D printed, easily assembled smartphone microscope developed at Stanford University turns microbiology into game time. The device allows kids to play games or make more serious observations with miniature light-seeking microbes called Euglena.

"Many subject areas like engineering or programming have neat toys that get kids into it, but microbiology does not have that to the same degree," said Ingmar Riedel-Kruse, an assistant professor of bioengineering. "The initial idea for this project was to play games with living cells on your phone. And then it developed much beyond that to enable self-driven inquiry, measurement and building your own instrument."

Riedel-Kruse named his device the LudusScope after the Latin word "Ludus," which means "play," "game" or "elementary school." He and first author Honesty Kim, a graduate student in Riedel-Kruse's lab, are set to publish details of the LudusScope in PLOS ONE on Oct. 5. Playing with cells

The LudusScope consists of a platform for the microscope slide where the Euglena swim freely, surrounded by four LEDs. Kids can influence the swimming direction of these light-responsive microbes with a joystick that activates the LEDs.

Above the platform, a smartphone holder positions the phone's camera over a microscope eyepiece, providing a view of the cells below.

On the phone, children can run a variety of software that overlay on top of the image of the cells. One looks like the 1980s video game Pac-Man, with a maze containing small white dots. Kids can select one cell to track, then use the LED lights to control which direction the cell swims in an attempt to guide it around the maze and collect the dots. Another game looks like a soccer stadium. Kids earn points by guiding the Euglena through the goal posts.

Other non-game applications provide microscope scale-bars, real-time displays of swimming speed or zoomed-in views of individual cells. These let kids collect data on Euglena behavior, swimming speed and natural biological variability. Riedel-Kruse encourages teachers to have students model the behaviors they see using a simple programming application called Scratch, which many kids already learn in school.

Each of the elements, from the plastic microscope to the chamber that holds the Euglena, is something youngsters can build themselves from simple, easily available parts.



The LudusScope is an interactive smartphone microscope that can be made entirely out of 3D printed or commonly available materials and is easily assembled by middle school or high school students. Developed by Stanford bioengineer Ingmar Riedel-Kruse, it allows students to interact directly with light-sensitive microorganisms called Euglena. 3D printing plans are open source, as is the software for the interactive smartphone tools.

**video link:**  
<https://youtu.be/DEJg9RFbqA0>

## Win 10 now active on 400 mn devices

Microsoft's Windows 10 rollout drove adoption of the new operating system faster than any previous Microsoft launch. But there's been some question about how many device upgrades the company logged in the last phase of its rollout. Now Microsoft has updated its figures. In July, the company declared 350 million people had upgraded to or were using Windows 10. Now, after the conclusion of its Get Windows 10 campaign, Microsoft declared it has more than 400 million customers using the OS.

This implies that Microsoft got a bit of a bump as people rushed to finalize their upgrades — which makes sense, since I know I held off on the hassle of upgrading until the last possible second. Microsoft defines an active user as someone who has been active on a device within 28 days. Microsoft is expected to get another substantial bump to total Windows 10 usage figures once it

**Microsoft declared it has more than 400 million customers using the OS.**

rolls that OS out on Xbox One on November 12. Total uptake has been significantly faster than Windows 7, which took an additional seven months to hit the 400 million mark, according to data from VentureBeat.

Microsoft had previously set a target of one billion devices for Windows 10 by 2018 or so, but admitted in late July that this was no longer possible thanks to the implosion of Windows Phone. With PC sales continuing to fall year-on-year, this was an indication Microsoft doesn't expect a recovery any time soon — if PCs continued to sell at the 2015 rate of ~288 million per year, we'd expect the company to nearly hit its 1 billion target by 2018, particularly once you factor Xbox One upgrades into the mix.

The free Windows 10 upgrade has been blamed for some of the continued softness in the PC market. The OS even remains available for free if you know where to look — but it's too early to tell if ending the giveaway will spark any kind of uptick in PC sales. Given the trends of the last five years, there's not much chance the consumer space has bottomed out yet. Increased sales of boutique gaming systems and 2-in-1s have not been sufficient to offset the general decline in shipments.

## 3D-printed fish fossil may unveil origin of human teeth

Melbourne: Scientists have created 3D prints of a 400 million year old fish fossil found in Australia which could unveil how human teeth evolved. Researchers from The Australian National University (ANU) and Queensland Museum digitally dissected the jaws of a fossil *Buchanosteus* - an armoured fish from the extinct placoderm group - and used the 3D prints to learn how the jaws moved and whether the fish had teeth. The study helped determine when and how teeth - a characteristic feature of all animal species with jaws, including humans - had originated in evolutionary history, said Gavin Young from ANU. "We have used CT scanning facilities to investigate the internal structure of very fragile fossil skulls and braincases that



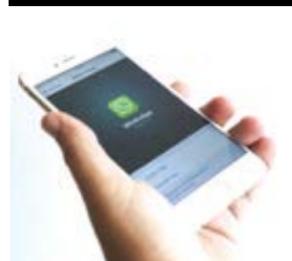
have been acid-etched from limestone rock," said Young. "We are conducting further research on the internal tissue structure of tooth-like denticles in the mouth of the fish fossil, to determine whether they represent a transitional stage in the evolution of teeth," Young said. The evolutionary origin of teeth was a major scientific question, said Yuzhi Hu, a PhD candidate at ANU.

"We are researching this question using new evidence from an exceptionally preserved fossil fish about 400 million years old," said Hu.

"It's great that we are able to use recent technology, such as micro-CT scanning and 3D printing, to examine some of the earliest known evidence of tooth-like structures in the most primitive jawed fishes," said Carole Burrow from Queensland Museum.



India's Rio Paralympics Medallists, Mariyappan Thangavelu, Varun Singh Bhati, Deepa Malik and Devendra Jhajarhia were applauded for their achievements and they received Smartron devices including book (2 in 1 Ultrabook convertible) & the stylish tphone. Smartron's Brand Ambassador and Strategic Shareholder, Sachin Tendulkar presented the awards to the winners and praised their efforts.



## Germany bans Facebook, WhatsApp data swap

The Hamburg commissioner for data protection and freedom of information issued on Tuesday an administrative order prohibiting Facebook from collecting and storing information of German WhatsApp users and obliging Facebook to delete data already obtained from WhatsApp.

According to the commissioner's press release, when Facebook bought WhatsApp two years ago both companies said that there would be no exchange of personal data between them.

"This administrative order protects the data of about 35 million WhatsApp users in Germany. It has to be their decision, whether they want to connect their account with Facebook. Therefore, Facebook has to ask for their permission in advance. This has not happened," Johannes Caspar said in a press release.

## Sensor to monitor blood sugar levels from sweat

Melbourne: Scientists have developed a new sponge-like copper-based material for wearable sensors that can measure blood sugar levels from sweat, an advance that may allow diabetics to painlessly monitor their disease.

People with diabetes often have low levels of insulin, a hormone that converts sugars to energy, which means they have to closely watch their glucose or blood-sugar levels to prevent further chronic health complications. Researchers at the University of Wollongong's (UOW) in Australia have demonstrated the first reported construction of copper with a sponge-like porous structure, which can also quickly and accurately detect glucose in body fluids other than blood, such as sweat or tears.



## 'Atomic sandwich' promises new devices that use less power, do more work

Washington:

Scientists, including those of Indian origin, have designed new 'atomic sandwiches' - materials that could lead to the next generation of devices that have more computing power and consume 100 times less energy than current electronics.

The material sandwiches together individual layers of atoms, producing a thin film with magnetic polarity that can be flipped from positive to negative or vice versa with small pulses of electricity.

This property may be used to store digital 0's and 1's, the binary backbone that underpins computing devices. "Before this

work, there was only one other room-temperature multiferroic whose magnetic properties could be controlled by electricity," said John Heron, assistant professor at the University of Michigan in the US. Room-temperature multiferroics are a hotly pursued goal in the electronics field because they require much less power to read and write data than today's semiconductor-based devices.

In addition, their data does not vanish when the power is shut off. Those properties could enable devices that require only brief pulses of electricity instead of the constant stream that's needed for current electronics, using an estimated 100 times less energy.

## Snapchat debuts video recording 'Spectacles'

New York:

Social media app Snapchat is introducing video-recording glasses called Spectacles and is changing its company name to incorporate the new product. The glasses can record video 10 seconds at a time by tapping a button on the device. The video is then uploaded to the Memories section of the popular image-messaging app via Bluetooth or Wi-Fi.

The glasses are the first hardware from the Los Angeles-based company. The glasses record so-called "circular video," meaning it plays

full-screen on any device in any orientation. They will be available in the US in the fall on a limited basis and cost \$ 130. In a way, the Spectacles recall Google's venture into eyewear, Google Glass, which took photos and video. But that device also had a screen that let you surf the web as well and cost \$ 1,500. Google shuttered that venture in early 2015 after it received a tepid response from users. The company says it's changing its name to Snap Inc since it now has more than one product. The app will retain the name Snapchat.



## Toshiba unveils cheapest SSDs

In the battle of increasingly affordable SSDs, Toshiba has a new weapon in the form of a fresh range of value-oriented drives.

Toshiba's OCZ TL100 series comes in 120GB and 240GB capacities, and it's nippy enough for a budget SSD with sequential read speeds of up to 550MB/s and writes of up to 530MB/s. Random read/write performance (4KiB, QD32) is rated at up to 85,000 and 80,000 IOPS respectively.

And on the endurance front, the daily usage guideline is set at 27GB per day for the 120GB model, and 54GB per day for the larger drive - meaning TBW (Total Bytes Written) is rated at 30TB and 60TB respectively over the three-year warranty.

Toshiba also provides management software with these SSDs, which gives the user a dashboard boasting a real-time overview of the status of the system, and monitors the health of the TL100. There's also a function to tune up the performance of the drive, and firmware updates are provided to the user.

But of course the most tempting factor here is the price, with the 120GB model weighing in at \$45.



## Smart implant of cryptographic keys

The UKI (www.myuki.com) - is the next, - no more than the next generation of smart implants.

The UKI is essentially a very small, security-oriented computer. A Java Card NFC platform, which is implanted in the body - more specifically, it is pushed under the skin.

The UKI allows its user to carry cryptographic keys in their own bodies. Usually these keys are in digital "containers" or "drawers" on the PC or the smartphone and are such as over the Internet networks, basically be hacked. So if hackers PINS and passwords (keys) steal, give it up easy access to the area of the PC or smartphone, where these "keys" are. A typical identity theft is the result. The data thief can now online shopping, draw money from the vending machine or something post online - a huge loss arises. The UKI it will be impossible for them to steal keys or abuse.

The UKI allows our biological with our digital identity to unite and to control both. Not Google or Facebook will have the control over our digital I, but we decide who may use the data in any form. We will be able, thanks to the cryptography of UKIS to prove our identity clearly to prove that a transaction clearly done by us and others, no.

New York:

A year ago, researchers from MIT's Computer Science and Artificial Intelligence Laboratory unveiled a fundamentally new way of managing memory on computer chips, one that would use circuit space much more efficiently as chips continue to comprise more and more cores, or processing units. In chips with hundreds of cores, the researchers' scheme could free up somewhere between 15 and 25 percent of on-chip memory, enabling much more efficient computation.

Their scheme, however, assumed a certain type of computational behavior that most modern chips do not, in fact, enforce. Last week, at the International Conference on Parallel Architectures and Compilation Techniques — the same conference where they first reported their scheme — the researchers presented an updated version that's more consistent with existing chip designs and has a few additional improvements.

The essential challenge posed by multicore chips is that they execute instructions in parallel, while in a traditional computer program, instructions are written in sequence. Computer scientists are constantly working on ways to make parallelization easier for computer programmers.

The initial version of the MIT researchers' scheme, called Tardis, enforced a standard called sequential consistency. Suppose that different parts of a program contain the sequences of instructions ABC and XYZ. When the program is parallelized, A, B, and C get assigned to core 1; X, Y, and Z to core 2.

# MIT Researchers Develop a New Way of Managing Memory on Computer Chips

Sequential consistency doesn't enforce any relationship between the relative execution times of instructions assigned to different cores. It doesn't guarantee that core 2 will complete its first instruction — X — before core 1 moves onto its second — B. It doesn't even guarantee that core 2 will begin executing its first instruction — X — before core 1 completes its last one — C. All it guarantees is that, on core 1, A will execute before B and B before C; and on core 2, X will execute before Y and Y before Z.

The first author on the new paper is Xiangyao Yu, a graduate student in electrical engineering and computer science. He is joined by his thesis advisor and co-author on the earlier paper, Srinivas Devadas, the Edwin Sibley Webster Professor in MIT's Department of Electrical Engineering and Computer Science, and by Hongzhe Liu of Algonquin Regional High School and Ethan Zou of Lexington High School, who joined the project through MIT's Program for Research in Mathematics, Engineering and Science (PRIMES) program.

## Planned disorder

But with respect to reading and writing data — the only type of operations that a memory-management scheme like Tardis is concerned with — most modern chips don't enforce even this relatively modest constraint. A standard chip from Intel might, for instance, assign the sequence of read/write instructions ABC to a core but let it execute in the order ACB.

Relaxing standards of consistency allows chips to run faster. "Let's say that a core performs a write operation, and the next instruction is a read," Yu says. "Under sequential consistency, I have to wait for the write to finish. If I don't find the data in my cache [the small local memory bank in which a core stores frequently used data], I have to go to the central place that manages the ownership of data."

"This may take a lot of messages on the network," he continues. "And depending on whether another core is holding the data, you might need to contact that core. But what about the following

“ There were many, many different consistency models explored by Sun Microsystems and other companies, most of which are now out of business. Now it's all Intel. So matching the consistency model that's popular for the current Intel chips is incredibly important.

- Larry Rudolph  
vice president and senior researcher at Two Sigma

read? That instruction is sitting there, and it cannot be processed. If you allow this reordering, then while this write is outstanding, I can read the next instruction. And you may have a lot of such instructions, and all of them can be executed."

Tardis uses chip space more efficiently than existing memory management schemes because it coordinates cores' memory operations according to "logical time" rather than chronological time. With Tardis, every data item in a shared memory bank has its own time stamp. Each core also has a counter that effectively time stamps the operations it performs. No two cores' counters need agree, and any given core can keep churning away on data that has since been updated in main memory, provided that the other cores treat its computations as having happened earlier in time.

## Division of labor

To enable Tardis to accommodate more relaxed consistency standards, Yu and his co-authors simply gave each core two counters, one for read operations and one for

write operations. If the core chooses to execute a read before the preceding write is complete, it simply gives it a lower time stamp, and the chip as a whole knows how to interpret the sequence of events.

Different chip manufacturers have different consistency rules, and much of the new paper describes how to coordinate counters, both within a single core and among cores, to enforce those rules. "Because we have time stamps, that makes it very easy to support different consistency models," Yu says. "Traditionally, when you don't have the time stamp, then you need to argue about which event happens first in physical time, and that's a little bit tricky."

"The new work is important because it's directly related to the most popular relaxed-consistency model that's in current Intel chips," says Larry Rudolph, a vice president and senior researcher at Two Sigma, a hedge fund that uses artificial-intelligence and distributed-computing techniques to devise trading strategies. "There were many, many different consistency models

explored by Sun Microsystems and other companies, most of which are now out of business. Now it's all Intel. So matching the consistency model that's popular for the current Intel chips is incredibly important."

As someone who works with an extensive distributed-computing system, Rudolph believes that Tardis' greatest appeal is that it offers a unified framework for managing memory at the core level, at the level of the computer network, and at the levels in between. "Today, we have caching in microprocessors, we have the DRAM [dynamic random-access memory] model, and then we have storage, which used to be disk drive," he says. "So there was a factor of maybe 100 between the time it takes to do a cache access and DRAM access, and then a factor of 10,000 or more to get to disk. With flash [memory] and the new non-volatile RAMs coming out, there's going to be a whole hierarchy that's much nicer. What's really exciting is that Tardis potentially is a model that will span consistency between processors, storage, and distributed file systems."



## Omnex Software services arrive

Chennai:

Omnex, an international consulting, training and software development organization headquartered in Michigan, USA and Asia Pacific HQ in Chennai, has announced the formal launch of its IATF 16949:2016 consulting, Training and Software services in India.

IATF 16949:2016 is an upgraded version of ISO/TS 16949:2009, one of the most popular international standard in automotive industry by the International Automotive Task Force (IATF). The 2009 version of the standard has more than 60,000 companies certified to it around the world. In October 2016, IATF 16949:2016 will be published by IATF and will supersede and replace the current ISO/TS 16949, defining the requirements of a quality management system for organizations in the automotive industry. IATF 16949:2016 will fully respect ISO 9001:2015 structure and requirements and implemented as a supplement to, and in conjunction with, ISO 9001:2015.

Commenting on the launch Chad Kymal, CTO and Founder of Omnex, Inc., said, "This is yet another milestone for Omnex that brings in leading edge training and consulting for our clients from automotive sector. Omnex has strong consulting, training and implementation and this new IATF 16949:2016 help its clientele further strengthen their operational strategy and new product development processes". He added, "Omnex has a track record in delivering world-class solutions throughout global markets and we are confident that this new initiative would symbolize company's business dynamism with innovation". Our service verticals have grown over the years and now Omnex has a fully enabled team of 500+ employees worldwide, of which around 220 are in India. Omnex' consulting solutions help companies implement systems to achieving high levels of

operational excellence, increasing profitability by process re-engineering strategies, Business Excellence software, Skill development and inspection services.

Arun Kumar, Vice President & Director Asia Pacific, said, "IATF 16949 related courses are a much needed addition to any automotive supplier / OEM. Omnex' portfolio of over 240 workshops and consulting solutions has helped numerous customers across globe from diverse industries such as some of the largest Automotive OEMs, to Retail companies to financial institutions to Windmill manufacturers, to many of the new Electric Car/Hybrid and Battery Manufacturers". He added, "We are immensely confident that this unique initiative would play a larger role in transforming the Indian Automotive industry to becoming a global force".

To meet the demands of this growing segment, Omnex has plans to launch the IATF 16949:2016 Training workshops and implementation services in several cities and countries with immediate effect, followed by the IATF 16949:2016 formal release in October.

During the event, Chad Kymal's latest books titled "How to Audit ISO 9001:2015" and "Integrated Management Systems implementation guide" were released by Rajagopal, Director-New Programs, Ford Asia-Pacific, and the first copy was received by Sivakumar, Head-Program Management, Ashok Leyland & Bhavani Shankar, General Manager, Sundaram Auto Components.

The seminar in Chennai witnessed around 200 plus participants from various automobile companies. The participants profile comprise of Ashok Leyland, TVS Group, Ford India, Apollo Tyres, Flextronics, Hinduja Foundries, India Pistons Ltd., Takata India Pvt. Ltd., BBL-Daido, Bridgestone India, Team Quest, Super Auto Forge and many others.

# Computer maintenance & upkeep tips

Your computer is probably the single most important piece of equipment in your business. When it's not working properly, your entire business slows, employee productivity dips, customers aren't served—or aren't served properly—and partners get frustrated. If you're ignoring your computer's maintenance and upkeep, you could find yourself in trouble someday.

A properly maintained computer will provide you with substantially higher speeds, both via RAM and on the internet, regardless of your hardware setup and configurations. The second law of thermodynamics states that all systems degrade over time, but here are a few tips on how to delay the inevitability. The good news is, maintaining your computer's health doesn't have to involve much time or many resources. Here are seven things to consider that will help you take better care of your computer:-

## Think before you install

So many times I'm told that someone's computer isn't working properly only to discover they've downloaded several programs from the internet or from a CD of a friend. Installing software on your computer will take up space on your hard drive, which will eventually slow your computer down. These random programs could also be an open door for viruses and cause other programs to crash. So install as few programs as possible on your computer.

## Install the right software

Ensuring your comput-

er is protected from digital vandals is critical if you want to keep information safe. It's therefore important that you install both an antivirus program and a firewall software

by browsers can amount up to gigabytes of wasted space, so it is imperative they're deleted.

Search and destroy spyware and/or viruses on your



program. These two critical pieces of software, which you should update on a regular basis, will serve as a wall of protection for your computer.

## Clean out all the junk left behind by browsers

Every few months you should regularly inventory your computer to find and delete the programs you don't really need. These unused or unnecessary programs take up valuable hard drive space, and if you're not using them, you should remove them from your computer via the "Add/Remove" programs option in your control panel. To do this, you can use the Disk Cleanup utility included on the Windows systems, or download a freeware program such as CCleaner to do it for you. In Linux you can use Kleansweep or Bleachbit. Cookies and cache left behind

PC

There is a myriad of tools available to do this. AVG Anti Virus is a good one to use. Download.com is a great place to legally obtain these tools.

## Defragment your hard drive monthly

To keep your computer running smoothly your hard drive is one of the hardest-working parts of your computer—you're using it all the time, every day (whether you realize it or not) to access the programs you use and store the files you create. But the hard drive doesn't save the files in any particular order; instead, it uses the first empty space it encounters (space that's created when you delete files). So the pieces of data become scattered around the hard

drive, making it slower for you to access the data stored there. That's why it's critical to defrag your hard drive on a regular basis to keep things running as quickly as possible. Do it monthly if you're a "light" computer user and weekly if you're a power user.

Always run your computer on a UPS as this will help protect it from electric surges

Phone lines for modems and cat 5 or cat 6 network lines also need surge suppression as they can and will take out your network card or modem in an electric storm.

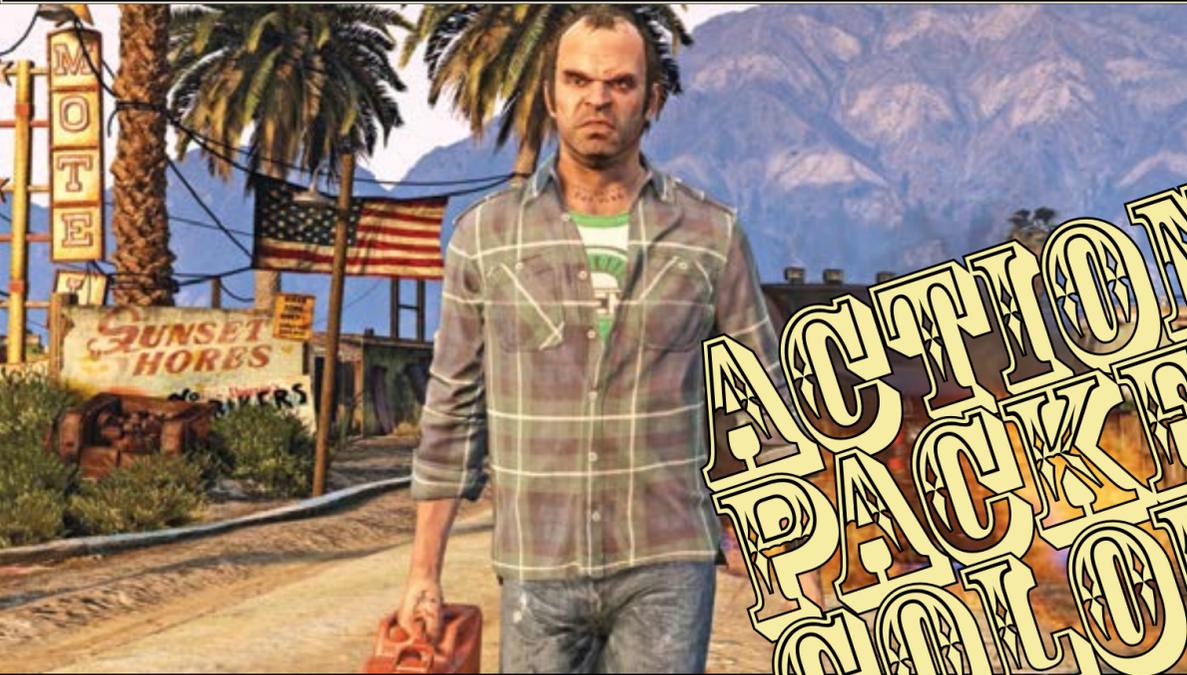
Your computer can grow dusty in less than a year, depending on where it is stored.

:- Open it up depending on how dusty your house is. If it's not too dusty, then check every few months, but if it's super dusty (your house), then be much more proactive about it. Remove the dust on the bottom with a vacuum (or cloth), then spray with compressed canned air.

Be careful when plugging in USB, Ethernet, speakers, printer etc. :- into your computer. Ports such as USB and Ethernet can easily be damaged from careless placement.

These repairs can be costly and these ports are a necessity. There are concerns that campaigns might be using this data to specifically individually target their messages on the targeted person, where someone else might be getting a slightly different messages that is tuned to their tastes.

This has implications for democracy and we need to have the societal conversation about this.



**ACTION  
PACKED  
COLORFUL  
PC GAMES**

**M**icrosoft and Sony have alluded to the fact that their Project Scorpio and Project Neo consoles are designed to take the PC's "best gaming machine" crown. Whether this will actually be the case seems unlikely, but it does show how our favorite platform continues to be regarded as the one to beat, thanks in no small part to its huge number of amazing games.

While not all the titles on this list are exclusive to the PC, it's the place where they truly shine. If you haven't tried some of these, know that you're missing out. In our opinion, these are the best PC games you should be playing right now, so what are you waiting for?

**The Witcher 3: Wild Hunt**

Incredible, amazing, magical: the English language is running out of superlatives to describe The Witcher 3: Wild Hunt. The deserving winner of Game of the Year at the Game Awards, this open-world adventure is one of the greatest RPGs we've seen in a long time. In addition to its fantastic story, characters, and gameplay, CD Projekt Red's title has a special something that stays in the memory long after you stop playing. And to top it all off, The Witcher 3 is an incredibly beautiful game.

It's been out over a year now, but the two expansions – Hearts of Stone and the incredible Blood and Wine – along with its numerous mods mean there are hundreds of hours worth of things to do and see in this fitting swansong to the series.

**Overwatch**

Who would have suspected that Blizzard's first original IP in 17 years would be a multiplayer shooter in the same vein as Team Fortress 2? Skepticism was rife before people got their hands on it, but from the ashes of abandoned MMO Titan rose the spectacular Overwatch.

The game is no mindless shooter; it's a multi-layered experience that rewards smart tactics and coherent teamwork. The wide range of unique characters, balanced gameplay, and frighteningly addictive nature make it one of the best and most popular PC games out there right now. It may not be the best title for those who prefer going it alone, but few things beat playing Overwatch with a group of friends.

**Dark Souls III**

Playing Dark Souls III can feel like being repeatedly punched in the face by someone and taking joy in the fact that you endured it. Brutally unforgiving gameplay is what the series is known for, and this third installment doesn't disappoint when it comes to repeatedly informing players of their demise. But for all the frustration, nothing matches the feeling of finally beating a particularly difficult section.

Like previous titles, this Japanese take on western fantasy doesn't put the story front and center - Dark Souls III encourages players to figure things out for themselves. Whether it's better than Bloodborne is open to debate, but the amazing combat, level design and creatures make it the best Souls entry to date.

**Grand Theft Auto V**

Even though it took several months for GTA V to make its way from the Xbox/PS4 to the PC, it was worth the wait. Rockstar's latest iteration of its criminals-and-vehicles series is arguably the best entry in the franchise. The level of detail found in this open-world game is extraordinary, especially considering the sheer size of Los Santos and the surrounding areas.

GTA Online continues to go from strength to strength, with a seemingly never-ending supply of content regularly being released for its multiplayer element. With rumors of single-player DLC on the horizon (finally), and some of the best mods ever created, there's plenty of life left in GTA V.

**Rise of the Tomb Raider**

PC owners had to wait a couple of months to get our hands on Rise of the Tomb Raider following its Xbox debut, but it was worth it, not least for the stunning graphical improvements the platform introduces.

Like XCOM 2, RotR is the sequel to an impressive reboot that manages to improve on its predecessor. Lara's a lot tougher this time round, bringing more tools and abilities to explore and fight off the bad guys. The challenge tombs are excellent - though there could have been more of them - the story and characters are entertaining, and the huge number of collectibles and challenges will keep you sticking around for many hours.

**XCOM 2**

Following the magnificent XCOM: Enemy Unknown was an unenviable task for Firaxis; the 2012 remake of the 1994 classic strategy game blew everyone away. It managed to be worthy of the original's name, and now the developer had come up with something even better. Somehow, they succeeded.

By improving pretty much every element of Enemy Unknown and adding new game mechanics such as stealth, Firaxis made it hard to find faults with XCOM 2. Like Dark Souls 3, it can be punishingly difficult, and seeing a team member you've been leveling up for hours die in unfortunate circumstances is like being kicked in the groin, but completing a mission when the odds are stacked against you is incredibly satisfying. With its depth, procedural missions, DLC, and numerous mods, the lifespan of XCOM 2 could stretch into thousands of hours. One of the best strategy games ever made.

**Doom**

You've doubtlessly read plenty of mildly pretentious reviews of Doom that talk about its pure, back-to-basics FPS mechanics and how the streamlined gameplay revitalizes a genre that was growing stale. At its essence, though, Doom is simply liquid fun injected straight into the heart.

The upgradeable weapons, glory kills, and increasingly badass demons mean you won't get bored, even after multiple playthroughs. There's a rhythm to the combat that makes it easy to pick up and satisfying to master; few games make you feel so skilled so fast. The multiplayer may not be its strongest element, but that doesn't matter when the campaign is this utterly epic.

**Fallout 4**

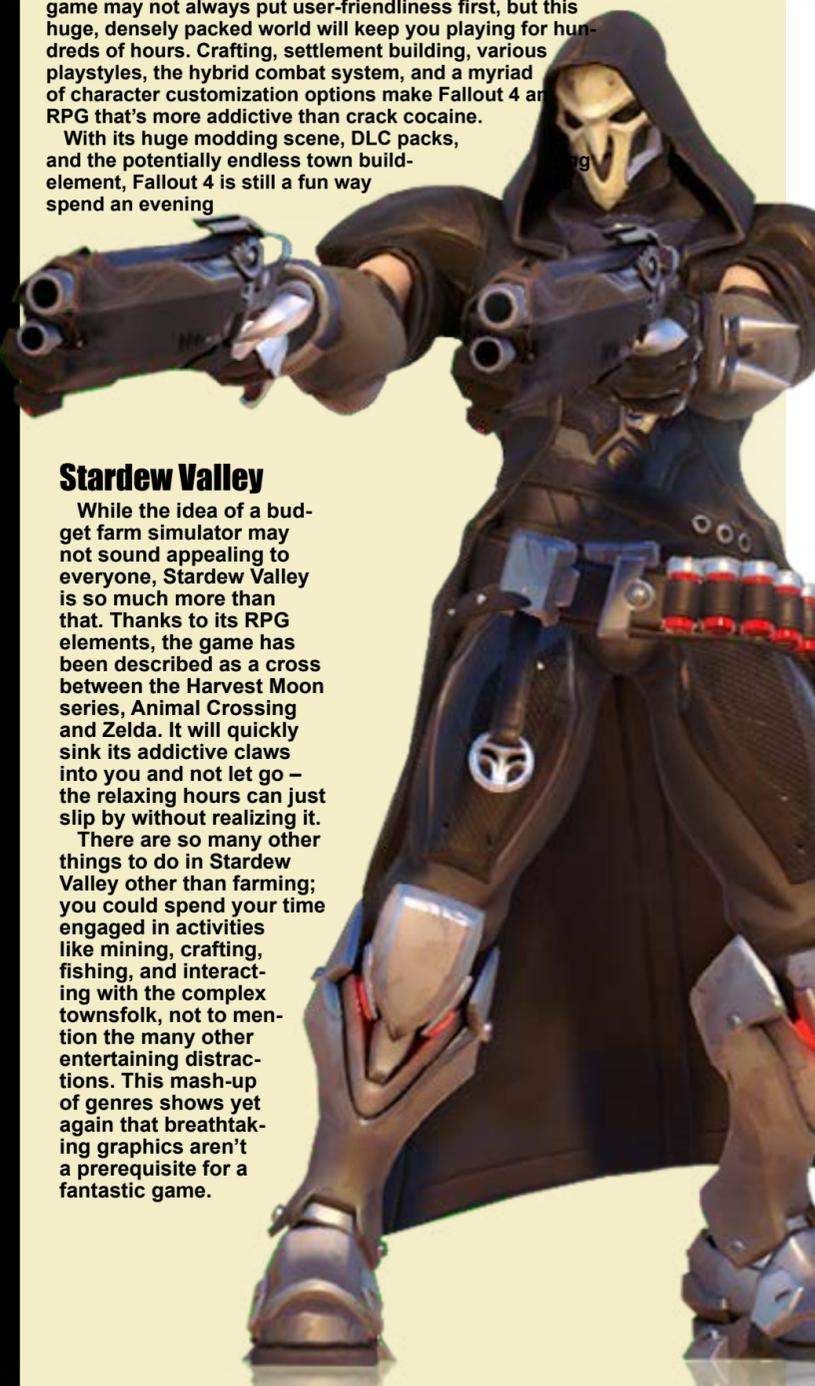
One day after its launch, Fallout 4 broke a record for the most concurrent Steam users. Barely a month later and it's the 7th most searched-for Google term of 2015. Bethesda made a triumphant return to post-apocalypse Americana with its latest installment of the series. The game may not always put user-friendliness first, but this huge, densely packed world will keep you playing for hundreds of hours. Crafting, settlement building, various playstyles, the hybrid combat system, and a myriad of character customization options make Fallout 4 an RPG that's more addictive than crack cocaine.

With its huge modding scene, DLC packs, and the potentially endless town build-element, Fallout 4 is still a fun way to spend an evening.

**Stardew Valley**

While the idea of a budget farm simulator may not sound appealing to everyone, Stardew Valley is so much more than that. Thanks to its RPG elements, the game has been described as a cross between the Harvest Moon series, Animal Crossing and Zelda. It will quickly sink its addictive claws into you and not let go – the relaxing hours can just slip by without realizing it.

There are so many other things to do in Stardew Valley other than farming; you could spend your time engaged in activities like mining, crafting, fishing, and interacting with the complex townsfolk, not to mention the many other entertaining distractions. This mash-up of genres shows yet again that breathtaking graphics aren't a prerequisite for a fantastic game.



"If you can DREAM it, you can DO it."  
-Walt Disney

Future Bright

# Communication skill is pre-eminent

**C**ommunication skills are ranked 1st among a job candidate's 'must have' skills and qualities. Why communication is so demanding? Communication has become an authentic platform between peers, managers and executives to share information be it the work place or a domiciliary environment. Basic communication skills is to distinguish who the listeners are, show respect, give concise delivery and use an appropriate modulation of voice, the basic skills are speaking, listening, reading and writing.

Experts opine communication is a complex process in which many possibilities for misapprehension and subsist. When communication is comprehensible everything is pellucid. We do come across many instances many of the employees in MNC'S are attracting pink slips due to either misperception or due to lack of communication.

Let us examine two different scenarios, have you ever sought the help of your colleague to intervene in an ongoing negotiation, instances where someone has helped you in re drafting a mail to your client. What went wrong in these situations? It may have been due to a breakdown in communication. In the workplace, you spend a lot of time interacting with peers. Peers are colleagues who are in a similar category as you are, usually in the same cadre, or who share a similar level of experience and expertise. Introspect, as the colleague stepped in the negotiation and the reply to the client mail fall in its place. Why was he able to when you were in want? Even though these two models are different, one has to read what's the common thread? They need to communicate to work together most effectively.

What exactly is communicating? John Maxwell defines it as the "ability to identify with people and relate to them in a way that increases your influence with them". John Maxwell is a leadership development expert and he's so passionate about communication that he wrote an entire book about it called "Everyone Communicates Few Connect". It's important to remember that while communication is focused on the way we speak to others and the words we use, it is also the way you use our body language. Body language can put forth a message equally as one delivered by words. Sometime written communication also has a hidden emotion. One can easily understand the passive aggression, disenchantment, and bias, in the way it is expressed.

In the history of humanity, written communication is a recent phenomenon.



Initially, Communication existed in various forms since Homo sapiens appeared in this Planet. The methods, however, consisted of a muddled set of signs that could have different meanings to each human using them. It was only after Cognitive evolution humans were facilitated to speak. Even today signs and symbols are used to communicate with the masses which are a much understood communication than other forms of communication. Poor communication skills may lead to a lot of misunderstandings and bad personal relationships. This can cause stress and complications into one's life that will bring down greatly in the long run. One should avoid this at any cost!

#### Non Verbal Communication:

Nonverbal communication is the transmission of information in addition to words in a communication. The prime aspect of Non Verbal Communication is the body Language, 'This is studied by the way a person sits; stands; moves arms, hands, and feet; other subtle movements.

Facial expressions convey how someone feels about entity. These are used to show anger, grief, happiness, contempt, fear and confusion, among other feelings. Human faces are incredibly expressive including the eyes, eyebrows, mouth, and any other movement. Emotions such as anger, happiness, hurt, and boredom are all easily expressed with facial movements.

Good posture is an easy and very important way to maintain a healthy mind and body. When you practice correct posture, your body is in alignment with itself. This can alleviate common problems such

as back or neck pain, headaches, and fatigue. How you carry yourself including bearing, stance, rigidity, uprightiness. Whether you are leaning back comfortably, sitting rigidly on the edge of your seat, or leaning back with your eyes close, you convey a message through your posture and positioning.

#### Eye contact:

focusing your eyes helps you concentrate. When your eyes wander, they take in random, extraneous images that are sent to your brain, slowing it down. When you fail to make eye contact with your listeners, you look less authoritative, less believable, and less confident. People often attribute trustworthiness to people who speak while maintaining good eye contact and vice versa. Eye contact is also used to convey interest and emotions, and to promote rapport with the receiver of the message. It is also used to feign interest, mislead, and fake interest.

Gestures differ from physical non-verbal communication that does not communicate specific messages especially hand gestures are rich conveyors of communication. They punctuate the spoken word and add meaning. Less conscious gestures such as scratching your nose, stroking your hair, tugging on your clothes, placing your hands on your hips, and waving

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communicate messages advertently or inadvertently.

In 1620, Juan Pablo de Bonet published the first book that taught sign language to the deaf. His writings were based on the work of an Italian physician, Girolamo Cardano, stated "hearing words were not necessary for understanding ideas". Signs and other articles with words, pictures or symbols are considered to be communicative.

Attire: Attire role is very significant, a doctor, advocate, are easily identifiable by their clothing. Types of clothing and your appearance send powerful nonverbal messages. Some of the messages are intentional as when the fan wears a shirt with his favorite IPL team emblazoned on the back.

#### Modern day Miscommunication:

Today, the world is behind social media, huge populace uses this format of communication, but it proved to be a disaster for a salesman. The manager pinged the salesman as to find out has he given the quote to the client. The salesman in his exuberance typed "Y" instead of "S". The ego stricken manager found fault with the salesman concluded that salesman is challenging him by asking why. In this case, the salesman's intention did not convey his message; he was fired for no reason.

Oral Communication, This stratum of communication allowed information and comprehension to be transformed from an individual to group, from generation to generation. It also allows for the aggregation of knowledge through anecdotes, history of our civilization. This process began only by mouth. Long before writing was developed, groups of people carried stories to teach the young and to preserve the history. Let's appreciate our Neurological functioning of our brain. The Broca's area is the motor speech area and it helps in movements required to produce

speech. Wernicke's area is the sensory area. It helps in understanding speech and using the correct words to express our thoughts. One has to know these important functions if they are curious to know how communication is processed in our brain.

How to improve our communication skills:

Be aware, do practice, have a handwritten note for small talk, and try to remember points. Small talk is an art that not many people have mastered. Secondly is storytelling, I make sure all my training session will have 2 or 3 stories related to the subject. Stories are powerful. They activate our brains, make presentations attentive and interesting, and make us more persuasive. Everyone's got at least one great story in them.

A husband gets into an argument with his wife and they quarrel. They decided not to Communicate, but suddenly husband realized that he has to catch the morning flight and needed to wake up early. So he decided to write in a piece of paper a message to his wife "Please wake me up by 5AM". But when he woke up it was 9am. Furious why his wife has not woke him up he went in search, but to find only a note from his wife, "please wake up it is 5 AM". The pun here is, Husband cannot outsmart wife in effective communication.

Practicing Empathy while communicating; Communication is a two-way street. If you practice taking the opposing viewpoint, you can reduce the difficulty and anxiety that sometimes arises. Developing empathy helps you better understand even the non verbal aspect of your communication with others, and help you respond more effectively.

Next Important communication skill is writing skills. Good writing skills will propel you to communicate your message with clarity and reach to an audience than through facial or telephone conversations. Another way to improve your writing skills is to read through Audio Visual Mode, as you read, see and hear you pick up new vocabulary and engage with different writing styles.

We sum it up by expressing, try to adapt to whatever situation you find yourself in and make the other person feel comfortable and valued their conversation with you. By bettering verbal, non-verbal, and written communication skills, you can become more successful in all areas of business. Empathy is a necessary skill for you to master if you want to be successful with the current trend of communication skills.

## Scholarships opportunities

#### Charles Wallace India Trust Scholarships

CWIT aims to provide a chance to early to mid-career practitioners to study in the U.K. in the fields of Arts (visual, music, performance, film, photography, design, etc.) or Heritage Conservation (architecture or landscape conservation, management of museums, collections or sites, etc.).

Eligibility: Graduation, diploma or professional degree holder aging between 25-38 years with significant working experience.

Application: Application is to be submitted in hard copy at the nearest British Council centre.

Prizes and rewards: 10 scholarship awards which covers tuition fee, accommodation, travel & living allowances from 2-3 months to maximum of 1 year. Deadline: November 30. Website: <http://www.b4s.in/plus/CWI610>

#### Chevening Scholarships

To provide financial support to individuals with demonstrable leadership potential to study for a master's degree at any U.K. university.

The course will be starting in September/October

2017.

Eligibility: Graduates with at least two years of work experience can apply.

Application: Online only

Prizes and rewards: Tuition fee, monthly stipend, travel and other allowances.

Deadline: November. Website: <http://www.b4s.in/plus/CS336>

#### Foundation For Excellence Scholarships

The mission of this scholarship is to help exceptionally talented but financially constraint students become doctors, engineers, or technology experts by providing financial aid throughout their professional course.

Eligibility: First-year students of B. Tech., Integrated five-year Dual-Degree M. Tech. or MBBS with family income less than Rs. 1,80,000 per year can apply.

Application: Online initial submission. Prizes and rewards: Financial and other assistance. Deadline: Application is open. Website: <http://www.b4s.in/plus/FFE57>.

## IIT Madras introduces app development course

A free online (lectures on YouTube) web- and mobile application development course, offered by IIT-M and tech- startup Hasura, has met with tremendous response in the form of registrations for the five-week course.

One need not be a techie to successfully complete the course which is designed for easy understanding by a lay person. All one needs is a browser and Internet connection and one can work at one's own pace from the comfort of one's home and free of cost.

The course "Introduction to Modern Application Development" (IMAD), is spread over five weeks and is a judicious blend of theory and practice. It comprises assignments every week which contribute to 25 percent weightage of marks with a final exam contributing to 75 percent weightage.

One need not know any software or hardware to be eligible for the course. It teaches students the web programming language Java script, Fundamentals of JavaScript, the programming language of the Web and Intro to JS: Drawing and Animation) and computer fundamentals as well as lessons on creating a web or mobile application. The videos (each 20 minutes long) will be available online (NPTEL/YouTube), and can be watched at

any time. In five weeks, students can build their own application.

The course encourages you to build a network to learn the material, clarify doubts, and make contacts. A peer-to-peer grading system will be employed for some of the work — this will encourage debate and discussion. On successful completion, a certificate will be issued by IIT-M. Impressed by the virtues of this course, many companies — start-ups as well as established ones — have come forward to consider taking successful participants into their organisations as interns or employees.

The list includes companies such as ChargeBee, CloudCherry, PickYourTrail, DIGIGRID Energy Solutions, Playfiks, USP Studios, SolverMinds, and Volante Technologies which have tied up with IITM-Hasura to provide interview opportunities to these students after the course.

"This is a testament to the usefulness of the skills that the course will be teaching," says Dr. Gaurav Raina, faculty, IITM who along with Tanmay Gopal, head of engineering and co-founder of Hasura, was a principal architect and visionary of the course. More information on the course can be accessed on [www.imad.tech](http://www.imad.tech)