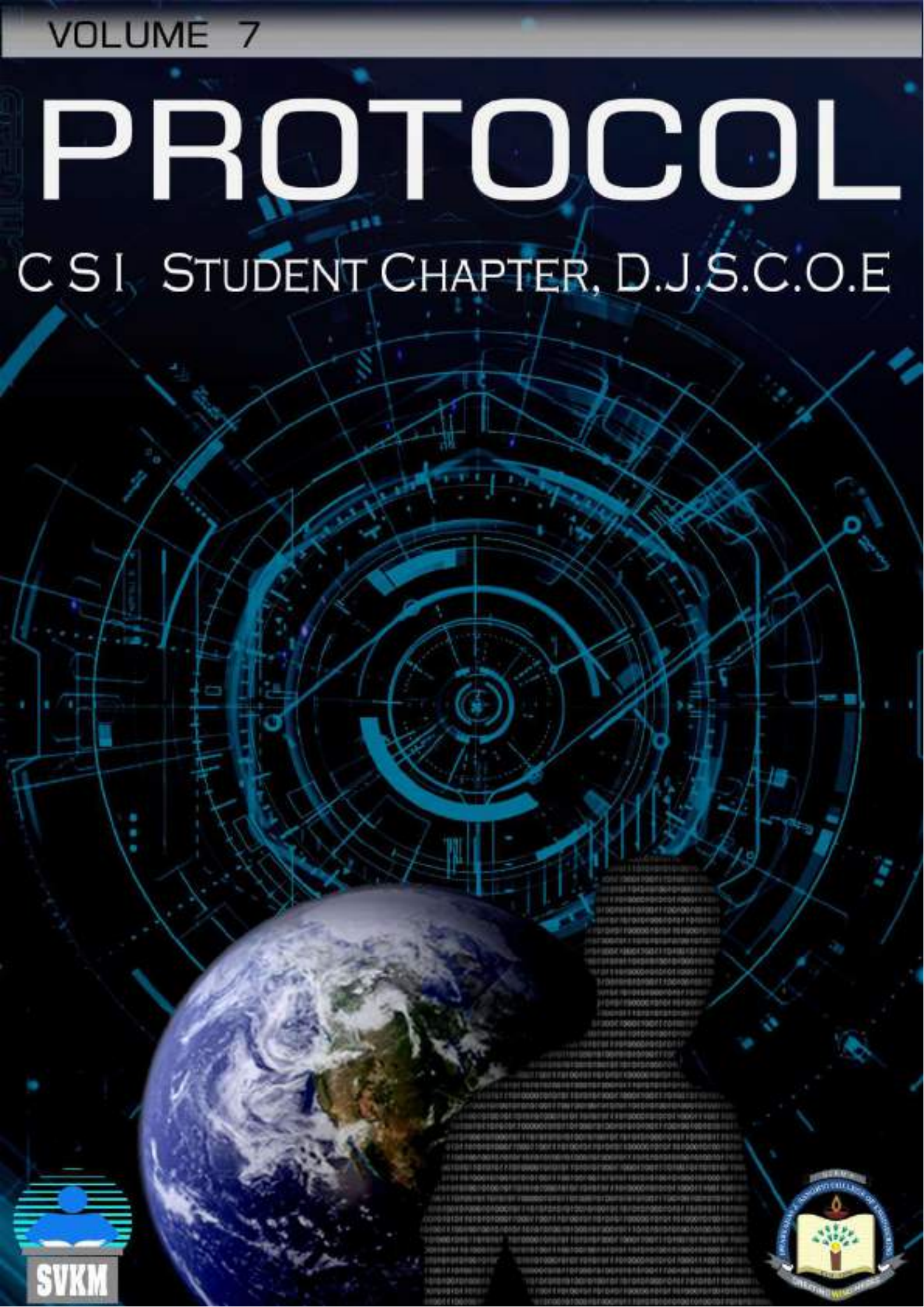
VOLUME 7

PROTOCOL

CSI STUDENT CHAPTER, D.J.S.C.O.E



SVKM

From The Editors Desk

Technology and its impact on human lives was something that always intrigued me. Be it any field, Health, Aerospace, Eduction, Smart Gadgets, Currency etc. We have seen huge Technological Marvels in the above mentioned fields and more. We have compiled this magazine in our efforts to enlighten our readers in these domains. We hope you like it and have a good time reading it.

From CSI Committee 2012-2013

CSI is a profound and well established student chapter organisation in the IT industry and I take utmost pride to have served an entire year towards it . Having granted a crucial role as Vice Chairperson, I developed my leadership qualities, polished my communication skills, been educated about the latest trends in technology and boosted my morale with my confidence at the highest order. I wish the same to the current CSI Committee, wishing them all the luck, hoping they can excel in their endeavors and take DJSCE CSI to new heights. Best Of Luck!

-Sayam Arora

Acknowledgements

The CSI Magazine committee would like to thank Prof Dr. Abhijit Joshi and Prof Mrs. Neepa Shah for all the support and constant help that they have given us. We would like to express our gratitude to them and the entire DJSCOE Faculty without whose support any of these extra-curricular activities wouldn't have been possible.

Magazine Committee

Vivek Sanghvi Jain (Editor-in-Chief), TE COMPS

Ishita Shah (Co-Editor), TE IT

Milit Betai (Designer & Writer), SE IT

Meghna Burli (Writer), SE IT

Nilay Shah (Writer), SE IT

Salil Damle (Writer), SE IT

Larissa Pereira (Writer), SE IT

Ashutosh Parekh (Writer), SE IT

Devang Jhaveri (Writer), SE COMPS

Dhvani Mehta (Writer), SE IT

Samkeet Shah (Writer), SE COMPS

Coding Contests

Coding Contests are online programming contests, in which you are given a set of problems to solve in the language of your choice.
By participating in various coding contests, you can learn…

- Many useful algorithms, mathematical insights
- How to code/debug quickly and accurately
- How to work in a team

Then

- You can rock in classes, job interviews, etc.
- It's also fun!

Study:

- Mathematics
- Data structures
- Dynamic programming
- Combinatorial games
- Graph algorithms
- Shortest distance problems
- Network flow
- Geometric algorithms
- String algorithms

Useful Links:

- The best place to start is topcoder :) - http://community.topcoder.com/tc mainly because it has very good tutorials on algorithms, a very helpful forum and a large number of problems with solutions and explanations on how the solutions work.

For example: the algorithm tutorials are here:

http://community.topcoder.com/tc?module=Static&d1=tutorials&d2=alg_index
and here is a thread on the forum that has solutions and explanations for problems from all competitions hosted on topcoder:
http://apps.topcoder.com/forums/?module=Category&categoryID=14

- Sphere Online Judge: http://www.spoj.com/ is a good place to find good quality problems and they too have solutions on their forum - however it's less active than topcoder.
- Codeforces: http://codeforces.com
- Project Euler: http://projecteuler.net/
- Apart from that all IITs host internal contests and usually publish the problem sets - for example IIT Mumbai has a website : http://www.cse.iitb.ac.in/acm/index.html

Annual Contests

- International Conference on Functional Programming (ICFP)
- International Collegiate Programming Contest (ICPC)
- International Problem Solving Contest (IPSC)
- Google Code Jam
- Obfuscated C contest

and many more…

Problems Archives

- Bitwise problems IIT-Kh:
http://www.bitwise.iitkgp.ernet.in/index.php?q=prevproblems

- USACO (USA Computer Olympiad) Online training: http://train.usaco.org
- SACO (South African Computer Olympiad): http://olympiad.org.za/past_papers.htm
- ACM Peking University China: http://acm.pku.edu.cn/JudgeOnline/problemlist
- ACM Zhejiang University China (huge archive): http://acm.zju.edu.cn/problems.php
- University of Vallaloid Spain (another super huge archive):
http://icpcres.ecs.baylor.edu/onlinejudge/

Links to algorithms archives

- Wolfram from Germany:

Coding Contests

http://mathworld.wolfram.com/Algorithm.html

• NIST National Institute of Standards and Technology (Dictionary of Algorithms and Data Structures): http://www.nist.gov/dads/

• Links to archives of universities: http://www.cs.pitt.edu/~kirk/algorithmcourses/

• Algorithms and DS books: http://olympiads.win.tue.nl/ioi/study/books.html

Competitions

• Google CodeJam: http://code.google.com/codejam/

• Indian Informatics Olympiad: http://www.iarcs.org.in/

• NIT Trichy - Pragyan - Bytecode Online: http://pragyan.org/

• IIT Bombay Code-Wars (nBrain): http://techfest.org/competitions/crypt-o-logic/codewars/

• IIT-Kh Bitwise Online: http://www.bitwise.iitkgp.ernet.in/index.php?q=home

• Online Competitions:
o Sphere Online Judge: http://www.spoj.pl/
o Topcoder: http://www.topcoder.com

- Mrs. Neepa Shah
(Professor - IT Dept.)

Tech Buzz

Upcoming Tech. in 2014

Moto360:
A wearable Android Wear that will redefine concept of Smartwatches.

Sonus Disc:
Sony's new CD with storage space upto 300gb created to store 4K HD Movies

Steam Machine & Steam OS:
Elixir for gamers. Biggest competitor to PlayStation and the Kinnect

Galaxy note pro 12.1:
The first tab that lets you run 4 apps simultaneously on screen

Scratch Jr:
Introductory programming language for children aged 5-8 teaches programming with help of interactive stories and games for Children who are Born For The Internet

Microphone Lens 150X:
A lens that turns your phone/tab into a portable $500 microscope equally capable as a $2400 digital microscope.

PebbleBee:
Take Control & Never Lose Anything. A badge like Bluetooth device that tracks and locates any item up to a maximum distance of 150Ft. Good to track pets, luggage and kids.

- Taken from the Internet

Gesture Control

The iconic scenes from the movies "Minority Report " and "Iron Man" has fixed in our heads what "natural" interaction with hands and fingers should look like. Gesture control has finally turned this into reality.

MYO

Myo, Built by a Canadian start-up Thalmic Labs, priced at $149 is the world's 1st gesture control armband that aims to bring gestural interfaces into the mainstream. It looks like a sweatband & employs a combination of motion sensing & muscular activity. With Myo, you can easily control your computers, phones, remote control cars, quadcopters, basically any Bluetooth-enabled device. It follows the principle:-

"Your muscles talk, MYO listens"

Sitting on your biceps, MYO monitors the electrical neural activity and the slightest adjustments of your muscles and reads electromyography signals from your forearm and uses it to control said device via a Bluetooth connection. The Electrodes embedded in the armband detect the activity in a user's muscles as they contract or relax in the course of moving the hand and arm. The MYO transmits these signals wirelessly to software that interprets the movements into commands.

The armband uses Bluetooth 4.0 to communicate with the devices it is paired with featuring on-board, rechargeable lithium-ion batteries, and an ARM processor outfitted with muscle activity experiences. Control a
It has 8 EMG sensors, a nine-axis IMU & nearly ten thousand ways to use them.

Google it, and I kid you not, you will be blown.

FIN – Wear The World

Smart glasses! Smart watches! Smart… rings?
Dreaming of a world where technology runs in the palms of your hands? Where a mere finger-flick can bring you resources and functions never imagined before.

A small Indian startup RHL Vision Technologies has made this possible with Fin-A trendy Bluetooth enabled gadget you can wear on the thumb and make your whole palm as a digital touch interface & gesture interface. It can uniquely recognize each segment of the fingers and can convert your palm into a numeric keypad & can connect to 3 different digital world gadgets at once like Smartphones, Smart TVs, Automobiles,etc.

Myo is built using electrodes that work without making direct contact with the skin. The band's ability to reliably control anything is really going to hinge on its ability to tune into subtle gestures but filter out garbage data; our arms are always moving. It comes with a developer API that lets you fully utilize this sophisticated piece of equipment. Though the 1st generation of MYO recently launched, the team is already imagining ways to integrate their rigs with other augmented reality devices like the head-mounted display, Google Glass,etc. It provides a seamless way to interact with e-devices giving users an accurate sense of control with the wave of a hand.

It is integrated with imu sensors to track different activities, optical sensors, Bluetooth 4.0 and can accurately measure movement of thumb on the palm, thus detecting part of the fingers were you are touching. The sensors inside fin detect swipe or tap action and thus pass appropriate command to any device connected with it. An app is provided along with the Fin Smart version. In the app there will be provisions to register all your finger divisions for your numeric keypad. Also there will be provisions for creating custom gesture and assigning it to various actions that needed to be performed. So basically you can create your own gesture and assign it to unlock your phone or anything you can think of.

- Meghna Burli
(SE IT)

Biological Breakthroughs

Insulin Pills

In a big breakthrough, Indian scientists have done what medical science has been trying to achieve since 1930 - an insulin pill for diabetics.

For years, researchers have sought a way to transform delivery of this therapy from a shot to a pill, but it has been a challenge. The body's digestive enzymes that are so good at breaking down food also break down insulin before it can get to work. In addition, insulin doesn't get easily absorbed through the gut into the bloodstream. To overcome these hurdles, Sanyog Jain from India's National Institute of Pharmaceutical Education and Research combined two approaches to shield insulin from the digestive enzymes and then get it into the blood.

They packaged insulin in tiny sacs made of lipids, or fats called liposomes, which are already

used in some treatments. Then, they wrapped the liposomes in layers of protective molecules called polyelectrolytes. To help these "layersomes" get absorbed into the bloodstream, they attached folic acid, a kind of vitamin B that has been shown to help transport liposomes across the intestinal wall into the blood.

In rats, highly positive response to the pills was observed in case of lowering glucose levels in blood.

No more bearing the pain of the needle to take your dose of insulin; Just pop in a pil, instead!

Insulin injection v/s Insulin pill

Stem Cells

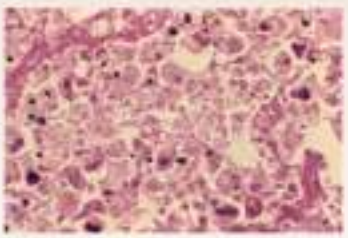
A group of researchers from the University of Washington have successfully established a new line of naive embryonic stem cells. These stem cells represent the earliest developmental state yet for established cells, and retained the ability to give rise to the largest range of cells so far.

One of the biggest drawbacks to stem cells is that creating them is a bit of a process. There is so much potential to solve a variety of physical ailments, but it is not yet a simple, practical solution. However, a new method generates stem cells faster and cheaper than normal and could revolutionize personal medicine.

Lung transplant recipients have a relatively low 10 year survival rate of about 28%. Cellular rejection of the donor organ occurs about 90% of the time, which brings additional obstacles for the patient and doctors. This might be about to change, as functional lung tissue has been created from human stem cells.

When burn victims need a skin graft they typically have to grow skin on other parts of their bodies - a process that can take weeks. A new technique uses stem cells derived from the umbilical cord to generate new skin much more quickly.

Regenerated burnt skin using stem cells.



Regenerated lung tissue using stem cells.

- Milit Betai (SE IT)

Crowdfunding

Giving wings to ideas - Crowdfunding

Ever had a dream, a vision, an idea or a eureka moment? Ever had the wish to leave behind a legacy, like creating an awesome video game, making your own 3-D printer, creating the next Kung-Fu Panda? It doesn't hurt to dream big right?

But, coming back to reality, dreams are expensive, & you need a lot of moolah for your dream to take off. Which if you don't have, then you have to meet several prospective investors or apply for loans & go through a lot of hassle and trouble to gather capital you require.

But the Internet Gods have granted us a solution to this as well, crowdfunding. Gone are the days when you had to go door to door to every possible investor in search of funding for your project. Crowdfunding is a collective effort of individuals across the globe who pool in their money to fund your project via a crowdfunding platform. All you need is an idea, a good marketing technique like a pitching video, a sound business plan for your model & an incentive for your backer or investor.

So if I wish to create a RoadRash like game, for which I need funding, then I have to first upload my business plan on a crowdfunding website, demarcate my required goal amount & show the partially created game graphics, then comes the most important part, adding some attractive perks or incentives for the backers, like free game CD for anyone backing more than $5, a t-shirt, a name in rolling credits for backers backing more than $500. After all this, if I am able to create enough buzz about my idea only then do funds start appearing. And I have to be prepared to essentially live online, staying active on social media sites, until the crowdfunding campaign is complete. With crowdfunding you can collect money for disaster management, political campaigning, and scientific research, practically anything you set your mind onto. But a downside to this is when you meet your goal but then realize you underestimated how much money you needed, so proper cost estimation is required beforehand. There also lies a risk of getting sued if customer was promised products or perks in return for donations, & then failure to deliver occurs.

There are several crowdfunding websites where people upload their projects, the most famous one being "kickstarter.com" followed by "indiegogo.com". All these websites charge a cut of money raised for the project, like kickstarter charges 5% and indiegogo charges 4%. Only drawback about kickstarter is that it accepts projects only from U.S. citizens, so bad luck Indians, where as indiegogo accepts projects from everyone.

There are 2 ways in which these websites ask people to fund a project: Flexible Funding where the partially funded money is provided for the project even if the target has not been reached and Complete Funding where funding is provided only after the target goal amount has been reached. Also, if the goal amount has been reached, funding doesn't stop there. So a brilliant idea like the 3Doodler, a 3d printing pen that needed a funding of simply $30,000 received total funding of $2,344,134, nearly 80 times what they asked for.

Crowdfunding is not a new concept. It was used during creation of statue of liberty when funds fell short. It has been used by many unsigned music bands to raise money for tours. It has been used by several film directors to fund their films. The most successful crowdfunded project to date is Star Citizen, an online space trading and combat video game being developed by Chris Roberts & Cloud Imperium Games, which as of 20th Jan '14, claims to have raised US$36,889,095, beating the previous record of US$10,266,844 set by Pebble Watch. Last July, Ouya, a proposed $99 videogame console, hit its $950,000 goal in eight hours. When funding closed a month later, it was at a staggering $8.5 million

Crowdfunding websites helped companies and individuals worldwide raise $89 billion in 2010, $1.47 billion in 2011, $2.66 billion in 2012 & nearly $5.1freakin billion in 2013.

However, it is a great gift from the internet. And each and every one of you can use this to fund an awesome BE project. "*So never fear to dream big my friends*".

-Vivek Sanghvi Jain
(TE COMPS)

Out of the world experience

Brad Pitt, Stephen Hawking & Michael Schumacher will also be stowing their luggage & buckling up before taking off & landing on the same two mile-long runway at Spaceport America, New Mexico. Unsuprisingly, considering the clientele, this is no budget flight, but the maiden voyage of Virgin Galactic, Sir Richard Branson's self-professed "boldest venture".

This year, space tourism is at last cleared for take-off & it's almost certain that Virgin will operate the first commercial flights into sub-orbit, taking paying punters to the point where the earth's atmosphere ends & space begins for a zero-gravity experience making the vacuum the coolest destination not-quite-on earth.

The 536 customers that secured spaces aboard Virgin's Spaceship Two shelled out £125,000 for a round trip. Yet anyone aboard Virgin Galactic's Spaceship Two will be paying for the bragging rights of being one of the first mortals to get an eyeful of earth usually reserved for trained astronauts. They'll do so without having to log the thousands of hours of flight time, psychological evaluations & intense physical & mental training that professional space jockeys have to endure. The only things tested to their limits will be credit cards.

"The trajectory of sub-orbital flight is such that the ship only breaks the earth's atmosphere for a limited time, rather than being placed on a course that allows it to achieve orbit around the earth," explains David Mackay, a Virgin Galactic pilot. "However, before a sub-orbital begins to fall back down to terra firma, weightless passengers will be able to see the earth cradled in the blackness of space from their window seats."

Not that they'll be sitting at this point because the crucial difference between the two operators, Virgin Galactic & XCOR, is "hang time", with space tourism bringing a whole new meaning to the usual mid-air prompt allowing passengers to "get up & move around the cabin". Both sets of passengers will have the opportunity to float around in the confines of the craft, but while XCOR offers four & a half minutes in microgravity, onboard a Galactic flight you could be bumping weightlessly into Angelina Jolie for as long as five to six minutes. Just imagining that should give you immense joy.

All the amateur astronauts will have to take part in a training program that requires them to check in at Spaceport America a full three days before departure. Upon arrival, passengers will be prepared for their incredible journey with what Virgin calls a "Pre-Flight Experience Program". One of the most vital elements of

that training will be preparing them for the extreme stresses & strains that G-force will place on their bodies.

"Many of our passengers will have already experienced the effects of G-force in a centrifuge," reveals pilot David Mackay. "This is necessary to prepare them for what they will experience when the space plane detaches from the jet-powered mothership, WhiteKnight2, at 50,000 feet. And each passenger gets the same seating position with 1 large window to the side & one overhead to enhance the viewing experience.

"This is the moment that everyone on board will become 'astronauts', as they breach what is known as THE KARMAN LINE, which is the boundary of the earth's atmosphere," says Mackay. "Seconds after we've turned the motors off, passengers will then be able to unbuckle & float out of their seats to experience weightlessness in the 90-inch diameter cabin as the plane glides into outer space."

Floating in microgravity, the thrillionaires onboard will be able to witness the curvature of the earth encased in the narrowband of atmosphere & the dark sky of space beyond. Those zero-G somersaults will be short-lived how ever, as the Enterprise's trajectory will only allow passengers to experience weightlessness for a limited period of time before it deploys the feathered configuration of its wings & tail for re-entry
This is one of the most challeng most challenging & high-risk elements of space travel, & SpaceShip2 has a novel approach to dealing with its demands, taking some aerodynamic tips from badminton. Never underestimate any sport.

"Essentially, we turn the ship into a space shuttlecock & once we're clear of the atmosphere on the way up we can rotate the tail section up to a 65-degree angle to the fuselage," reveals Mackay. "On the way back down the high drag that results from having the fuselage parallel to the horizon, combined with the very low weight of the spacecraft, means that there is a low speed for re-entry, so there is no need for heat shields or tiles".
Therefore time is not far when we will be planning to go on Mars or any other planet for a holiday trip.....which is indeed an OUT OF WORLD EXPERIENCE.

- Dhwani Mehta
(SE IT)

One Step Closer to Hoverboards

Using Ultrasound to Levitate Small Objects

Of all the grandiose technology predicted to exist by 2015 in Back to the Future II, the Hover board was/is the one product that I really couldn't wait to get my hands on. Sure, Flying cars are awesome, (until you think about how bad most drivers are while still on the ground), self-lacing shoes would same seconds of time each morning, and multi-screen televisions had 7yr. old me excitingly contemplating how many competing cartoons I could watch at the same time, but the one product that captured the imaginations of a generation, was the Hover board.

The scientists use an array of wave emitters utilizing ultrasound standing waves to levitate small objects.

They've gotten so good at it that they are now able to not only levitate an item in midair but are also able to move it three-dimensionally through localized ultrasonic standing waves generated by ultrasonic phased arrays.

To be sure, this technology is still ways off from being integrated into a purchasable product, but with enough investment capital, anything is possible.

"Never bored on a hoverboard."
- Scott Westerfeld

- Milit Betai
(SE IT)

DISPLAIR

We've all played the hugely popular game:Fruit Ninja. Sure, swiping on-screen is fun. Now imagine doing hand gestures to cut the fruits. Won't it take the gaming experience to a whole new level? Sounds unreal and right out of an Ironman movie? Well, here we have the future of touchscreen and human imagination: Displair. If you still don't believe it, read on!

What is Displair?

Displair consists of an interactive display that is formed by a thin, stable and continuous airflow of water particles. This continuous airflow is caused by a Cavitation method (The formation of bubbles in liquids caused by mechanical forces). The screen thus formed is windproof and durable due to the aerodynamic image airflow system. All multimedia content is projected onto this fog, which can be controlled using hand gestures or even objects.. Imagine using a wand Harry Potter-style and Accio-ing (magically summoning) your email! The built in sensors in the device detect the user's hand movements and allow them to interact with the image. Multi-touch recognition is also possible with the help of Computer vision technology, It is a field that includes methods for acquiring, processing, analysing and understanding images. It can work simultaneously with upto1500 touches/second!

Some interesting facts about Displair:

- As the screen is virtual, regular 'cleaning of the monitor' is not required.
- It is possible to generate scents by which Displair can act as air freshener.
- It is lighter, cheaper and more ecofriendly than its competitors like the Fogscreen.
- Since the water droplets can exist from -50C to 50C, it can be used over a wide range of tempera tures.
- The technology has won many prestigious innova tion competitons in Russia such as 'Kubok Texnovaziy-2011', 'Zvorykinsky project – '2011'.

Displair also got selected in the top technical projects of Plug&Play in Silicon Valley.

What are the uses?

One may ask what exactly is the use of this technology if it's still just a screen. Well it isn't! For starters, it is intuitive and feels more natural than LCD monitors. It can therefore attract people's attention more effectively. Research shows that it has a 7.5 minutes dedicated-user viewer time as opposed to a 4 minute one for LCD screens; and hence is excellent as an advertising tool. Such a responsive (or hands-on) display is certainly much better than a billboard or a television screen. The communication time for Displair is 1-5 min. as against 10 second for regular advertising methods!

The vision of the Displair team is to build a 3D display system and also to incorporate this technology in mobile phones (in the near future).

Displair is also ecofriendly as it uses less electricity than traditional monitor displays. It consumes only 2 litres of water per hour and also moisturises the air.

DisplAir BIG | DisplAir 2D | DisplAir 3D | DisplAir Mobile

- Salil Damle
(SE Comps)

3-D Camera

The appeal of 3-D imagery is innate. It can make gaming, communication more life-like & Star Wars like Video-Conferencing possible. But reproducing 3-D shapes with the fastest computer also takes eons; Unless you have 64 DSLR inward facing camera's set up at different angles rigged to capture this stuff in real life. And then the 3-D model created can be easily imported in any animation or game. So instead of playing with a game avatar, you might some-day see yourself running around like Jonny Quest.

"**3-D is inherently a more tactile medium**," says photographer Alexx Henry, who has built a camera capture studio called thexxArray, which was used to create the interactive image below.

The xxArray displayed at C.E.S.-2014, has the power to transform the gaming industry as we know it. Last year with the Nvidia FaceWorks rendering technology we witnessed a realism of human facial rendering never seen before. But with this technology, you can view the beautiful Vatican Sistine Chapel sitting a home.

How it works ?

A software called Agisoft Photoscan stitches the images from the 64 cameras to make it a cohesive whole. This is the same software behind Apple's 3D Maps. Using the whopping 15 gigapixels of separate images taken by the xxArray, Agisoft stitches together the 2-D photographs into one 3-D model. Normally the process is fairly labor intensive, but with a heavy dose of Python scripting, Henry says his team has gotten the process down to about 90% automated and 10% manual.

Possible Applications:

Augmented reality has scope much farther then gaming. With a 3-D Avatar of yourself, Video-Conferencing reaches a whole new level. Also with a 3-D Avatar of yourself, you might never have to try on a cloth to see its fitting and how it looks in a clothing store. And there is an boundless other fields in which it can be used.

- Vivek Sanghvi Jain
(TE Comps)

CAT | GRE | Campus Placements

CL TEST SERIES

A. CAT 2014

30 All India Mock CATs

338 Topic/Sectional Tests

SPECIAL OFFER!

B. GRE

8 Online Mock GRE

Verbal & Quant Section Tests

C. Campus Placements

20 Mock Aptitude Tests

Test Series Special Offer:

CAT + GRE + Campus = Rs. 2499

CAT + Campus = Rs. 1499

GRE + Campus = Rs. 1499

*valid till 28-Feb-2014

*valid in Mumbai only

Bring a copy of this ad & your college ID card to:

CL

Andheri: 202, 2nd Floor, 22 Business Point, SV Road, Opp. Andheri Subway, Andheri West. **Ph: 4253 1800/1802**

Borivali: Unit No. 14, 4th Floor, Ajanta Talkies Building, Gulmohar Road, Borivali West. Ph: **6565 2215/2216**

Dadar: 3rd Floor, Broadway Premises, Above Babubhai Jagjivandas Showroom, Near Dadar TT Circle, Dadar East. **Ph: 4082 5702/5703**

Thane: Office No. 101, Surya Sadan Building, 1st Floor, Opp. Princess Shop, Nest to Jain Traders, Ram Maruti Road, Thane West. **Ph: 4157 3200/3201**

Vashi: 304, Level 3, Devavrata Building, Next to HDFC Bank, Sector 17. **Ph: 4157 3101/3106**

"Accident is the name of the one of the greatest of all inverntors." - Mark Twain

Pacemaker - Wilson Greatbatch

An assistant prof. at the University of Buffalo thought he had ruined his project when he picked a 10-Megaohm resistor instead of a 10k resistor to use on a heart-recording prototype. The resulting circuit produced a signal that sounded for 1.8 milliseconds, and then paused for a second — a dead ringer for the human heart. Greatbatch realized the precise current could regulate a pulse, overriding the imperfect heartbeat of the ill. Before this point, pacemakers were television-sized, cumbersome things that were temporarily attached to patients from the outside. But now the effect could be achieved with a small circuit, perfect to tuck into someone's chest.

Matches

For more than a million years, humans have been playing with fire. But no one could create a really easy way to start a fire until a British pharmacist tried to clean his stirring utensil.In 1826, John Walker was stirring a pot of chemicals when he noticed a dried lump had formed on the end of the mixing stick. Without thinking, he tried to scrape off the dried gob and – all of a sudden – it ignited.

The Microwave - Percy L. Spencer

In 1945, Percy Spencer, a genius electronic engineer, was fiddling with a microwave-emitting magnetron, when he felt a strange sensation in his pants. Spencer paused and found that a chocolate bar in his pocket had started to melt. Figuring that the microwave radiation of the magnetron was to blame (or to credit, as it would turn out), Spencer immediately set out to realize the culinary potential at work. The end result was the microwave oven — savior of eager snackers and single dudes worldwide.

Saccharin - Ira Remsen, Constantin Fahlberg

In 1879, Ira Remsen and Constantin Fahlberg, at work in a laboratory at Johns Hopkins University, paused to eat. Fahlberg had neglected to wash his hands before the meal — which usually leads to a quick death for most chemists, but led to him noticing an oddly sweet flavor during his meal. Artificial sweetener! The duo published their findings together, but it was only Fahlberg's name that made it onto the (incredibly lucrative) patent.

- Larrisa Pereira
(SE IT)

Competiton expressed through words

1973 Cellphone:

"Joel, I'm calling you from a real cellular phone."
- Martin Cooper, leader of Motorola's cellphone team,
to Joel Engel, research head of rival AT&T's Bell Labs, April 3, 1973

Amit from Mumbai, studies in a local engineering college, but is learning basics of Computer Science by taking a course at Harvard. Whereas, a more right brained Sid is learning the intricacies of human psychology from the professors at Yale. Reema, a 10th standard SSC board student, is awaiting her certificate of completion of a classical mechanics course from MIT. These students had to neither pay a penny nor leave the comfort of their homes to take up these courses. But these are just a few among millions of people being awe-stricken and benefiting by the concept called MOOC's that is taking the educational world by storm.

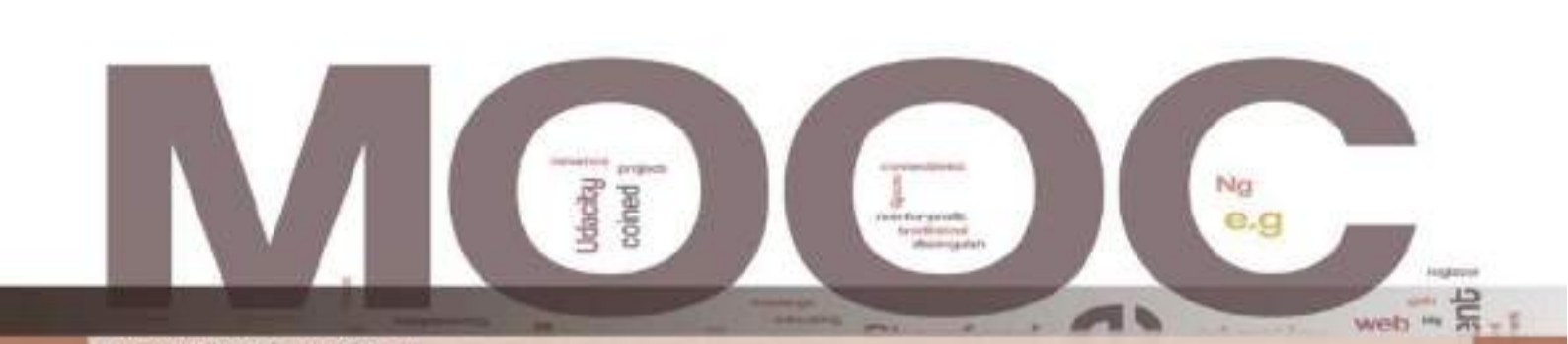
What are MOOC's then? Well, We enroll for a course of our choice in a college, because we are interested in it and wish to learn more about it, thereby at the completion of which we receive a certification from the institution, stating that we have learnt the same. MOOC is just that but it is placed on top of the internet. MOOC stands for Massive Open Online Courses.

The name of the concept itself conveys its definition: the MOOC is "Massive" because it is designed to enroll tens of thousands of learners. The number of students hailing from India (around 10%) forms the 2nd largest student chunk in various MOOC's around the world, USA has the highest at around 30%, Brazil stands 3rd. And with more courses being introduced in Mandarin, the Chinese enrollment has seen a steep rise ; it's "Open," because, in theory, anyone with an Internet connection can enroll in the free course's ; It's "Online" because much, if not all of the interaction takes place online in threaded web discussion groups with cohorts of learners, or on wikis, or via online videos of professors giving lectures and finally, MOOC's are "Courses" because they have a concrete start and end dates.

For Eg., you can browse through the courses offered by MIT, see if you like the course and then enroll in it. By enrolling, you can watch the various video lectures in the course, made available weekly and as the course progresses, you can read the notes made available by them and take the optional tests or quizzes, which if satisfactorily cleared a certificate of completion is awarded from that university stating that you have completed the course. All this without spending on the exorbitantly high tuition fee of foreign universities!

Takeaway:

MOOCs are the Next BIG THING in education. One thing students must remember before enrolling for the lecture is that, if one wants to complete a course, tremendous amount of perseverance is required as it is very easy to lose the steam driving you and some people give up on courses they have enrolled in. Only 10% of the people enrolling for the courses actually complete them. Therefore one needs to imbibe self discipline before taking up these courses. This will lead to independence in learning-procedure, a quality beneficial for the rest of our life. So the voracious watching of the 7 seasons of your favorite sitcom can be complemented by giving these courses a try. There is nothing to lose.



Why MOOCs are Cool:

- The demand for MOOC's stems from an enormous appetite for branded, high-quality education among students around the world who cannot afford expensive private education. The people enrolling for these courses have a hunger for learning. People without degrees can learn about subjects they are passionate about by transcending their disciplines and their corporate/institutional wall.

- Most MOOCs allow students to go through the course as a 'semi-synchronous' cohort of learners, which means each week the group receives the same assignment of video lectures, readings, quizzes and/or threaded discussions, but each member completes that course work on his or her own time. The design of semi-synchronous cohorts provides learners the opportunity to motivate each other as they go through the program.

- "Flipping the classroom", or swapping of class work with homework, was first made popular by Khan Academy, and is one of the defining features of MOOC's. In this way, most of the learning happens not through a professor lecturing but by giving students access to course materials and having them study and explore them at home. Then in class, they put their new knowledge to work with role-plays, use cases, and exercises.

- You learn from the best in the business. Meaning you are virtually present in the lecture halls of few of the most reputed institutes of the world absorbing knowledge from the professors who are the best in their re spective fields. A few of you might say that it's still not the same as physically being there but its closest we are getting to those halls at this point in time.

- There are no physical boundaries stopping you. All you need is a computer with an Internet connection and passion for your subject. It's a boon for People with no access to quality education.

- It's free. Education empowers. An educated man can bring about a change, change in his future by improving it, change in the society by enlightening others. Education is the most important ingredient in the recipe for change. And as long as MOOC's maintain this sanctity of education by clearly distancing it from commercialization, it is changing the world for better.

You can visit these sites, browse through various courses being offered from various universities (including MIT, Harvard, Stanford, Yale, Caltech, Oxford, Cambridge, Carnegie Mellon etc) and select the course based on your liking. The courses covers the whole spectrum with topics like Computer Science, Electronics, Philosophy, Music, Law, Finance, Humanities, Music, Films,Economics, Medicine,Biology,Math,Chemistry,Physics,Literature, etc.
Some of the most popular courses available with few of them having relevance to computers are:

Some of the most popular courses available with few of them having relevance to computers are:

- Introduction to Psychology by Yale university available on Udacity
- Justice- Harvardx available on Coursera
- Software as Service - Berkleyx available on EDx
- Data Structures and Algorithms - IITB available on NPTEL
- Cryptography I & II – Stanford University available on Coursera
- CS50.x: Introduction to computer Science -Harvardx available on EDx (A MUST)
- Introduction to interactive programming in python - Rice University available on Coursera

www.edx.org	(EDx)
www.coursera.org	(Coursera)
www.udacity.com	(Udacity)
www.Khanacademy.org	(Khan Academy)
nptel.iitm.ac.in	(NPTEL)

- Nilay Shah
(SE IT)

Bitcoin

What is a Bitcoin?

Bitcoin is the 1st anonymous, decentralized, p2p digital currency. A Btc is a unit of digital that in't controlled by any kind of central authority. It's founder Satoshi Nakamoto handed over the project & then disappeared in a cloud of mystery. You can send Btc to anyone through the web. As soon as you have your Bitcoin wallet, you're part of the big Btc network.

Getting Bitcoins:

i) Mining

Mining is a decentralized process of spending computing power to process transactions, secure the network, and keep everyone in the system synchronized together. Btc miners earn transaction fees paid by users for faster transaction processing, and newly created Bitcoins issued into existence according to a fixed formula.

"Bitcoin miners" run specialized software on high-powered computers and solve complex mathematical puzzles. Depending on your computing power and electrical costs, mining may or may not be a profitable activity. You would generate a mere 0.003 BTC if you keep working your computer having an average configuration for around 150 hours.

ii) Buying Them:

Bitcoins can be purchased from a btc exchange, such as Mt Gox like stocks. You can also trade Bitcoins at a Bitcoin exchange(The Indian version of which has been recently banned by the R.B.I fearing rise in its popularity and it's possible illegal uses.)

iii) Working of Bitcoins:

From a user perspective, Btc is nothing more than a mobile app or computer program that provides a personal Bitcoin wallet and allows user's to send and receive Bitcoins. Behind the scenes, the btc network is sharing a public ledger called the "block chain". This ledger contains every transaction ever processed, allowing a user's computer to verify the validity of each transaction. The authenticity of transaction is protected by digital signatures corresponding to the sending addresses, allowing all users to have full control over sending Bitcoins from their own Btc addresses.

Using Bitcoins:

There is a growing number of businesses and individuals using Bitcoin. You can buy anything from any company that accepts Bitcoins as currency. One of the more popular uses for Bitcoin, however, seems to be the purchase of illegal drugs. Payments are made from a wallet application by entering the recipient's address, the payment amount, and pressing send. Many wallets can obtain the address by scanning a QR code or touching two phones together with NFC technology.

Security of Bitcoins:

The Bitcoin technology - the protocol(SHA-256) & the cryptography- has a strong security track record, and the Bitcoin network is probably the biggest distributed computing project in the world. The rules of the protocol and the cryptography used for Bitcoin are still working years after its inception, which indicates that the concept is well designed. However, Bitcoin wallets and exchanges have been hacked. Bitcoins are as secure as its user. If users don't keep their "private key", the password which lets them spend their Bitcoins, well hidden, they can easily lose everything. The concept of digital currency is not new, but one of the main reasons for the rise of bitcoin is that it is the first SECURE digital currency almost immune tu any hacks.

Advantages of Bitcoin:

Anonymity - Bitcoin is designed to allow its users to send and receive payments with an acceptable level of privacy as well as any other form of money. However, Bitcoin is not anonymous and cannot offer the same level of privacy as cash.

Payment freedom & Low fee - It is possible to send and receive any amount of money instantly anywhere in the world at any time. Btc allows its users to be in full control of their money.

Bitcoin

Bitcoin payments are currently processed with either no fees or extremely small fees. Users may include fees with transactions to receive priority processing, which results in faster confirmation of transactions by the network.

Fewer risks for merchants - Bitcoin transactions are secure, irreversible, and do not contain customers' sensitive or personal information. This protects merchants from losses caused by fraud or fraudulent chargebacks, and credit card frauds.

Security and control - Bitcoin users are in full control of their transactions; it is impossible for merchants to force unwanted or unnoticed charges, users can protect their information and money with backup and encryption.

Disadvantages of Bitcoin:

Degree of acceptance & Volatility- The total value of btc in circulation & the number of businesses using Bitcoin are still very small compared to what they could be. The list of btc users still needs to grow in order to benefit from network effects. In theory, this volatility will decrease as Bitcoin markets and the technology matures. Never before has the world seen a start-up currency, so it is truly difficult (and exciting) to imagine how it will play out.

Ongoing development - Bitcoin software is still in beta with many incomplete features in active development. New tools, features, and services are being developed to make Bitcoin more secure. Some of these are still not ready for everyone. In general, Bitcoin is still in the process of maturing.

Is Bitcoin legal?

Btc is money, & money has always been used both for legal and illegal purposes. Bitcoin has not been made illegal by legislation in any jurisdiction. It is completely impossible to counterfeit. Three are some concerns that Bitcoin could be more attractive to criminals because it can be used to make private and irreversible payments. One of the recent controversies surrounding Btc is the online drug marketplace, Silk Road, which took advantage of the currency's qualities to provide anonymity to patrons which now has been brought down. Also, the R.B.I issued an advisory to people of India not to buy & sell virtual currency btc. The legality of Bitcoins in India is still unclear and highly debated.

Determination of Bitcoin's Price & it's future:

Bitcoins have value because they are useful as a form of money. The price of a Bitcoin is determined by supply & demand. When demand for Bitcoins increases, the price increases, and when demand falls, the price falls. Because Bitcoin is still a relatively small market compared to what it could be, it doesn't take significant amounts of money to move the market price up or down, and thus the price of a Bitcoin is still very volatile.

The current rate of 1 BTC is an astounding Rs. 70000 approximately as on January 2014.

Bitcoin has proven reliable since its inception and there is a lot of potential for it to grow. However, no one is in a position to predict what the future will be for Bitcoin. Bitcoins are still a drop in the bucket in terms of the world economy. Deflation is built in to its very core: only 21 million Bitcoins will ever be produced by 2140 and we're already halfway there and transactions can already experience relatively lengthy delays in processing (taking minutes to clear).

Hardly can we expect to get rich with Bitcoin or any emerging technology.

Investment in Bitcoin:

Bitcoin has proven to be a Gold Mine for all the investors and young entrepreneurs dealing with it worldwide. And anyone who invested in it in 2012 or 2013 has successfully hit the motherload jackpot. 1 B at the beginning if 2013 was equivalent to $13, and by the end of the year its value ad sky-rocketed it, any guesses ? $100, 200 ? Wrong. It went to Wait-For-It 1 Thousand USD. Wish you knew about it back then. I do too. And if had purchased only 6 of them back then, My Engineering fee would have been recovered.

Google it and you'll say WoW!

- Ashutosh Parekh
(SE IT)

Phonebloks

What is Phonebloks?

Today, a mobile phone lasts a couple of years before it breaks or becomes obsolete. And even though it's often just one part that is broken or making the phone slow, we end up throwing the whole thing away.

This is often because mobile phones are nearly impossible to repair and pretty much impossible to upgrade. Phonebloks would like to change this.

Phonebloks started out as an idea from Dutch designer Dave Hakkens. As per this idea, a mobile phone will be made up of detachable modules or parts called 'bloks'. Phonebloks would consist of a main board onto which bloks could be snapped on by the user like Lego bricks. Each blok is responsible for a unique function of the phone, much as a desktop computer has a distinct sound card, graphics card, processor, monitor, and power supply. As a result, instead of replacing the entire phone when it becomes obsolete or broken, one could simply replace the defective or performance-limiting part.

For example if your phone is getting slow, you simply replace the 'processor' blok to increase your phone's speed, keeping all the other bloks. If the consumer wanted a better camera, he or she could swap their small generic camera blok for a better camera. In theory, this would lead to fewer people throw ever-increasing ginormous problem of electing away their phones and contributing to the

Smartphones based on the Phonebloks system would be sold part by part, as well as in starter sets. When assembled, the phone would have a screen covering the entirety of the front, volume buttons and headphone jacks along the outer edge, and bloks clicked

Project Ara

Motorola, now owned by Google, have been working on a similar idea for a modular phone called Project Ara. Motorola was already working on Project Ara when it bumped into Phonebloks, at which point something like a mutual high-five occurred, and they teamed up with Hakkens and started bringing in the deep technical work.

Motorola said that they want to do for hardware what the Android platform has done for software and it's goal is to give people the power to decide what their phone does, how it looks, where and what it's made of.

how much it costs, and how long they will keep it. Project Ara is designed to be a free, open hardware platform for creating highly modular smartphones.

Issues:

There are many objections to the viability of the concept and its implementation. The major issues in this concept are:

Economic Feasibility

The biggest challenge is the immense amount of money and manufacturing required in order to make the Phonebloks system a viable competitor. Without many manufacturers making bloks, there would be a limited selection of bloks to choose from, taking away from the open-source appeal of the system.

Technical Issues

Because all bloks are external of the main board, signals have significantly farther to travel between-between components. This extra distance could lead to noticeable delays between components.

Also cell-phones are made using minimized integrated circuitry, having modularization would increase the size of the circuits, And in addition, the quality of connection needed would require expensive pins and sockets, and developing a system to allow the user to arbitrarily place bloks would be very difficult. The end product would likely be much thicker than today's smartphones, and bloks would be at risk of dislodging from the main board.

Potential Increase of E-Waste

Critics of Phonebloks argue that, if put into practice, this could actually increase our e-waste output. They say that the frequent replacement of bloks by many customers could add up to more waste on average than getting a new phone every two years.

Implementation

Motorola will put its nose to the grindstone, of course, but the company says it'll engage with the Phonebloks community, presumably to solicit feedback, as well as send out invites to developers to start building modules for the platform and stay involved in the design process. A more practical modular smartphone system consisting of an endoskeleton with slots on the back where bloks can slide in will be built. However, this new project faces many of the same challenges inherent in modular smartphone design.

- Ashutosh Parekh
(SE IT)

Who watches the Watchers ?

While Edward Snowden (The infamous whistle blower, who blew the cover off the Surveillance work done by the National Security Agency) shuffles from 1 refuge to another tackling the flustered authorities of U.S., his leaks are making the general populace aware that they are being constantly watched. For those who don't know about Snowden, he is a former CIA/NSA contractor whose leaks, in 1 of many, claimed that NSA has direct access via the PRISM program to the servers of some of the biggest U.S. tech companies, including Apple, Google and Microsoft. The Guardian(newspaper) later revealed how large tech companies have worked closely with the NSA to help them circumvent encryption and other privacy controls, and how the agency pays for many of these companies' compliance costs. Also the meta data from user's phones are also compromised meaning every text, every phone call, your location via GPS can be tracked. This created a lot of uproar in almost every country that found out that they were being snooped upon ,which included countries from E.U. , brazil, China ; As many as 35 world leaders were spied upon. Even US's closest allies and United Nations were not spared. Apart from the flak that U.S. drew, this revelations implied that U.S. has and will have to suffer many repercussions while framing foreign policies. Now one thing that you must know is that although the proof has only now emerged of NSA monitoring people's activities, it has been in practice for very long time by many countries.

It shouldn't come as a big surprise either that big companies like Facebook, who are known to monitor & store users private data and internet activities by injecting cookies into the browser and selling this data to various companies that helps them narrow down their target-consumer to give users personalised Ads, also sell this data to the government. Supposing that Zuckerberg(or any other head honcho in that case) would've been an idealist, Authorities would have obtained the data by arm twisting them anyway. But this fact means that by tapping into the servers of Google, Facebook and Microsoft, the NSA does not only gain access to the data of American users, but also to that of Indian users. In fact, the "global heat map" of the controversial Boundless Informant data mining tool clearly shows that India ranked 5th worldwide in terms of intelligence gathering, which means that not only is the NSA spying on Indians, but that it is also spying on India more than most countries in the world. Why is that a problem?

India has no privacy law. India lacks privacy legislation which could safeguard citizens from potential abuse by different types of surveillance. But the worst part is that, even if India did have privacy laws, that would still not prevent the NSA from tapping into Indian's data through the servers of Internet companies, such as Google. Moreover, the fact that India lacks a Privacy Commissioner means that the country lacks an expert authority who could address data breaches. Also it remains unclear how the U.S. government is handling Indian data, which other third parties may have access to it, how long it is being retained for, whether it is being shared with other third parties or to what extent U.S. intelligence agencies can predict the behaviour of Indian internet users through pattern matching and data mining. What makes me really scared though is the idea that the greatest military power in the history of the world, which spends more than the next 26 countries

combined on defense and more than twice as much as the second biggest spender, has to eliminate Constitutional protections(4th amendment) in order to defend itself from anybody(the Judiciary in U.S.) to collect user's data. This links to the other important issue- Cyber Terrorism.
We realize that US has enough personal data of users not only in India but also various others countries which can be enough to paralyze whole countries within the span of days by rendering their computing devices dead. Not only US , but China has been infamous for hacking into India's military database. For example this March, suspected Chinese hackers breached the computers of India's top military organisation, the Defence Research and Development Organisation, in what was touted to be amongst the biggest such security breaches in the country's history. At a time where no country can afford to wage and sustain a physical war at its borders which put millions of lives and billions of rupees at stake cyber terrorism is the only pragmatic way forward. Hence the compromised data is very valuable.

Now the constant surveillance raises another important question about the ethical nature of this ridiculous invasion to privacy. It is difficult to sell people to this idea as most don't realise the gravity of the issue at stake and although they intuitively feel that it is wrong for government to snoop on people's activity they feel they have nothing to worry about as they have done wrong. To which I can give the following argument: Suppose someone asks you if are you against terrorism, to which you'd in a sane state of mind answer yes.

credit card details but assures you that they won't use it, and that you have nothing to worry about. Ludicrous as it may sound that is exactly what agencies like NSA has been under the veil safety and a promise of trying to find potential terrorist activities. Also we must realize that, Time and again history has taught us that too much power in the hands of a few, inadvertently corrupts them. Especially if they have the least regard for whom they are accountable to. Once we grasp the significance of the value of the data compromised (and being continually conceded) we can begin to comprehend the power accumulated by the handful few. The scary question then arises - "Who Watches the Watchers ?" . Another statement said by Cardinal Richelieu steers towards a similar concern-"If one would give me six lines written by the hand of the most honest man, I would find something in them to have him hanged". This refers to how a state government can find aspects in a person's life in order to prosecute or blackmail that individual. For example look at the blatant abuse of power by the U.S. military forces on the civilians when they sent troops to Iraq. Also We by characterizing this debate as "security versus privacy" we are wrong, The real issue at hand here is liberty versus control. No one, can infringe a right that we are endowed upon by birth, the right that is the intellectual foundation of our modern society.

"The government has granted itself power it is not entitled to. There is no public oversight. The result is people like myself have the latitude to go further than they are allowed to."
- Edward Snowden.

- Nilay S. Shah
(SE IT)

Elon Musk

The 21st Century Industrialist

What if I tell you an engineer is currently building a lab similar to the one in Iron-Man Movies without the help of the fictional genius of the charismatic Tony Stark, & he also plans to build the Jarvis UI for real. And would it be more surprising, if I further state that this lab of his does not even come close to his previous achievements? The person I am talking about is multi-billionaire Elon Musk ($8.8 bn as on Sept '13), a South African born Canadian-American engineer, business magnate & inventor. He is currently the CEO & CTO of SpaceX & CEO & Chief Product Architect of Tesla Motors. He founded SpaceX, Tesla Motors & PayPal. He is also the chairman of SolarCity. Sounds astonishing, doesn't it ?

SpaceX was founded by him with the goal of reducing space transportation costs & enabling the colonization of Space, which started with Mars. They've already had multiple successful launches into earth's orbit. They are already beating NASA in the race to a manned mission to mars. SolarCity is the largest provider of solar power systems in the U.S.A. Tesla Motors, Inc. an American company taking the automobile industry by storm that designs, manufactures & sells electric vehicle with the eventual aim of offering electric cars at a price affordable to the avg. consumer. PayPal is an international e-commerce business allowing payments & money transfers to be made through the Net. It is now integrally knitted with the payment structure followed on the Internet. All of these companies in their own ways have revolutionized their respective sectors. All this, with 1 person at the epicenter of these waves of paradigm changes- Elon Musk.

Here are various excerpts from various interviews given by him. I think that it is necessary for everyone to grasp the significance of these fields & the major impact they will have in the long term for us. These excerpts will help us understand (or at least create opinions about) these fields.

Self- Analysis:
"Accurate self analysisis difficult to do, since you're too close to yourself by definition. People do not think critically enough. So it's very important that people closely analyze what is supposed to be true, & build it up, analyze things by the first principles, not by analogy or convention, which is actually what most people do, that makes it difficult to gain insight as to how things can be bettered.

Self-Improvement:
"Constantly think about how you could be doing things better & questioning yourself, Have a feedback loop."

Ideology on Work:
"Really like what you do, whatever area that you get into, given that even if you're the best of the best, there's always a chance of failure. Also, if you like what you're doing, you think about it even when you're not working, it's something that your mind is drawn to, if you don't like it, you just can't really make it work, I think."

His inherent drive to fundamentally change things for the better & creating ways to do so, no matter how, demands admiration & heart-felt respect. That drive which has made him work tirelessly over the past decade & a half is something that we must find within ourselves. Here is an example of this inherent determination. One of his rockets at SpaceX had a failed launch 3rd time in a row & it was running out of money & deep into losses. When asked would he accept failure and move on, he said that he'd have to be completely incapacitated if he ever thinks of giving up.

- Nilay S. Shah
(SE IT)

TECHNOLOGY

BRINGING US CLOSER OR FARTHER APART?

Quite a debatable question, yes. Everyone seemed to complain that no one wants to meet anymore, no one calls on birthdays anymore , and even whilst communicating via messengers and text, emoticons are doing most of the talking. However, in this whole scenario, have you ever really stopped and asked yourself if you would still know what's going on in an old friend's (perhaps, one from school or one who moved away) life if it weren't for technology? Would you find time in your I'm-so-busy-I'm-an- engineering-student life (just kidding! I'm actually talking about the to-be-Chartered-Accountants. We all know engineering students are pretty much, last minute crammers) to take the time out to regularly meet your old friends? I'd think not . It's difficult but not impossible, yes. Then again, when your loved ones are just a video conference or a phone call or a message away, why not use these means of technology to keep each other updated ? It's a perfectly great way to communicate in a fast world where special occasions solely seem to be the purpose of a meeting.

So don't feel guilty about not catching up with your old friends and cousins every single week (we all have a lot going on) . It's okay to only be able to hang out once in awhile, but what's not okay is using the pretext of being too busy to travel across the city to see each other.Communicate ! After all, everyone's just a click away. Literally.

- Ishita N. Shah
(TE IT)

I truly believe that technology does bring us apart. With the advent of 21st century we have seen marvels in the field of communication, naming a few: Phones, Internet, & Social Networking Websites.

But Years before the dawn of the internet, most working people could only occasionally contact their friends, families & relatives personally, so other means of communication were used like telegrams & Letter's which had a personal touch, one you could keep & cherish forever. The feeling of nostalgia when an old couple reads the letters they shared secretly before marriage cannot be the same with text messages or emails. And although technology is making socializing astonishingly easier, it lacks the Human Touch something that we all crave & long for. You cannot truly call a facebook or a twitter discussion as a truly social experience, because they are very shallow engagements. You simply un-friend people at the click of a button, you spurt out regretful things in a fit of rage, you don't share deep personal information. And in today's busy world, people don't have time to make a call to their loved ones except the annual birthday wishes, which also unfortunately have now become birthday whatsapp or facebook notifications. I want people to realize that the beep of a notification cannot come close to the voice of a loved one; I mean would you rather hear someone say "I Love You" or prefer reading it in a message. Human Beings crave contact, for which aforementioned things were invented, but these things in-return make us more introverts and more alone.

- Vivek Sanghvi Jain
(TE Comps)

Interview with StupidSid

Founded in 2010, Stupidsid has turned into a 'go-to' website for every student irrespective of the stream. Stupidsid.com was born out of a very casual and innocent discussion (which later turned into a very sincere and heated argument) between a small group of third year engineering students of DJ Sanghvi College. "Content and information may be abundant but genuine information and good content is scarce", and this is what Stupidsid plans to provide students with."We decided to come up with a website that offers more than just formal praise or silly statistics about courses, colleges and universities". Their sincerity and passion has indeed paid off and made the college exceptionally proud of them. Stupidsid core team namely Jinesh Bagadia, Shubham Dosi, Tumul Buch, Kashyap Matani, Sumeet Jain took time out of their busy schedule to enlighten us about what it takes to think 'out-of-the-box'.

What inspired you to start a venture like Stupidsid?

We were in our third year and we had many juniors asking us about various questions pertaining to engineering. We realized that we too had faced similar problems in our times. We thought of starting up with a site and providing all that was needed by the students.

How did you come up with an unconventional name like 'Stupidsid'?

We needed a catchy name. Since our site was very casual we needed a name also something like that. And 'Sid' was like every guy who is confused and is coming to our site.

Tell us a bit about your support system in the entire process of establishing the company.

Our friends and family have been our biggest support. Parents have never pressurized us to look for conventional jobs or pursue higher education. We have had confidence in this and our parents have always supported us. Our friends have always given us confidence and have helped us spread the word.

Who were your role models?

We didn't have any role models as such. We worked on the idea because we liked it.

What were the biggest business challenges you faced and how did you overcome them?

There were a lot of challenges we faced. Monetizing was a big issue. During this time we were patient as well as always actively kept thinking on what to do and over the time we were able to overcome this.

Interview with StupidSid

What sets your company apart from ones similar to yours?

Our main point of difference was that we started it with keeping students point of view in mind. And this had made a big difference. We have always kept everything on the site simple and lucid. We figured out the gaps and catered to them. We have always paid heed to what students want and provided that. Our recent addition, solutions to the previous years papers has been one of such initiatives. There were a lot of requests from students to provide them as the ones available in the market were not upto the mark. We thought over this, figured out what was it that students want. We focused on providing solutions to the papers focusing more on the basic fundas and concepts. And it has done well.

What are the new programs/facilities you are currently working towards/ planning to work towards in the future?

As I mentioned about the previous years paper solutions. We have started it for just Comps and IT branch. In this sem we shall be providing Comps, IT, Mech, Elex, EXTC for Mumbai University. For VTU we shall be starting with First years right now. Apart from paper solutions we also plan to provide viva Qs and Ans. We shall also include synopsis and last minute revision notes.

Tell us about the campusid program that was started in 2013 and how it benefits the students?

Campus Sid program was started to provide Stupidsid reps in the colleges. Also since we have always wanted to be a student centric website, it is from these Campus Sids that we do take suggestions.

Campus Sid is also a program to help college student to get to work with Stupidsid. It helps them know what it takes to be behind the scene. You may ask the various Campus Sids to know about their experience.

As alumni to DJSCOE, do you have any plans with respect to the college and its current students?

We are hiring interns from DJSCOE, and welcome students to come and work with us.

Your advice to budding engineers who aspire to become entrepreneurs?

We never started this thinking entrepreneurship in mind. So I would also advice all students to do what you like. If you have an idea and want to implement it, then go ahead. Stop thinking about entrepreneurship. Don't do a start up because you have to do a start up, but rather do a start up because you have some idea and want to see it take form.

- Meghna Burli
(SE IT)


DJCSI