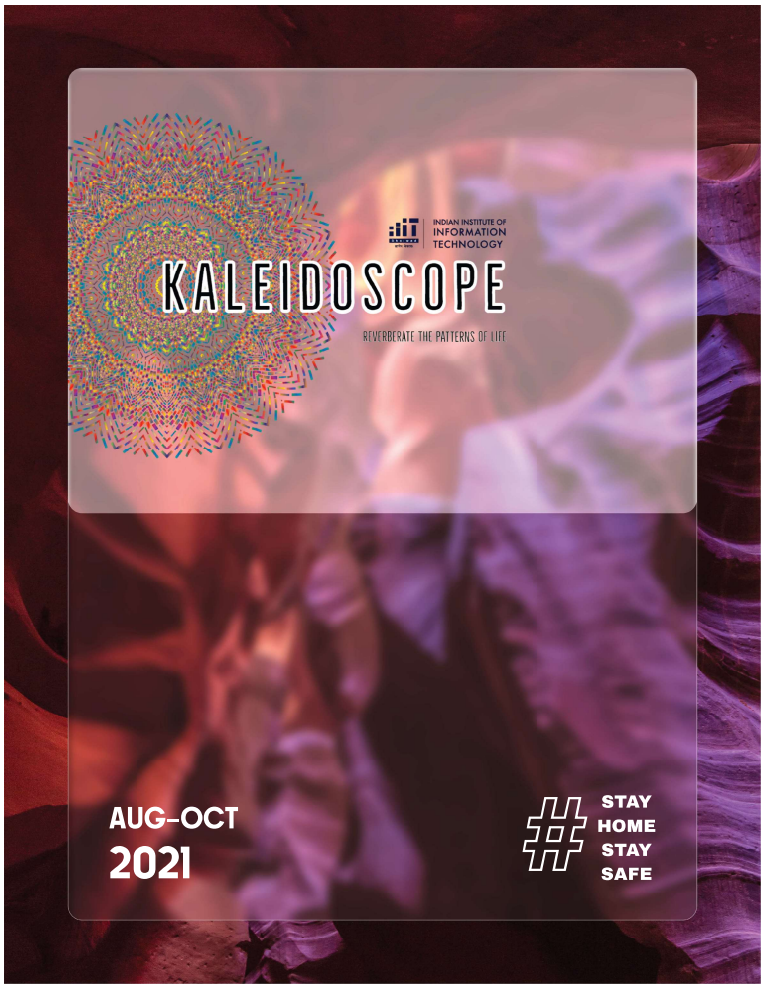


CONTENT

CONTENT

New age Skills

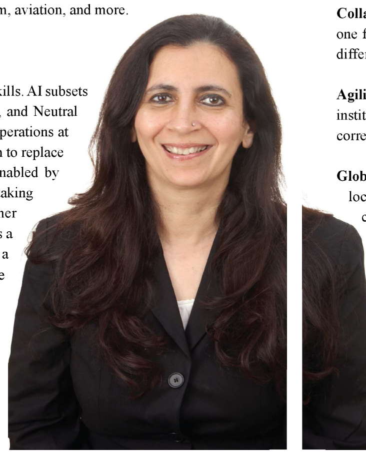
Ms. Pallavi Tyagi
Chief Human Resources Officer-India
Capgemini

In the New Normal, get a competitive edge with New-Age skills

The job scenario in India has undergone rapid change. Against the backdrop of the COVID-19 pandemic and the consequent disruption, it is challenging for the younger generation fresh out of educational institutes to embark on their careers.

As industry undertakes digital transformation, there is a high focus on learning new-age technologies of Artificial Intelligence, Cloud, Virtual Learning, Machine Learning, Big Data, Automation, etc., across industries and sectors. These include BFSI, healthcare, transportation, retail, hospitality, tourism, aviation, and more.

New opportunities with disruptive tech



In the age of Industry 4.0, AI has led to high demand for advanced tech skills. AI subsets like Machine Learning, Natural Language Processing, Deep Learning, and Neutral Learning assume high importance as we move towards automation of operations at the workplace. Automation skills will be high on demand as robots begin to replace humans for customer service. This is an era of customer-centricity, enabled by advancements in AI and Big Data analytics. Hyper-personalization is taking center stage and could emerge as the chosen form of brand-consumer engagement. It will lead to the rise of marketing technology (Martech) as a strategic business process where organizations will run marketing in a digital and connected ecosystem. This ties in with progress in the Internet of Things and the rise in Big Data for understanding customer preferences. By enabling more integration of the physical and device world, IoT promotes efficiency, economic benefits, and reduction of human efforts. Similarly, 5G will emerge as more than just a generational step; as it leads the advance in intelligent automation across IoT, AI, and other breakthroughs, it opens up new areas of learning opportunity.

In a hybrid work culture governed by restricted physical engagement, AR/VR is helping to provide seamless client engagement. AR/VR will be a game-changer in how people or entities communicate and interact. Their impact is likely to expand as the technology matures and develops, especially in client experience.

To make a business secure and seamless, organizations are heavily investing in cloud computing technologies. Cloud is an open network to make data accessible for employees as well as enable data security. The growing popularity of IT services has increased demand for roles like cloud engineers, architects, infrastructure architects, etc.

With so much digital transformation and online engagement around, the need for cybersecurity skills and ethical hackers will rise exponentially. Cybercrime damage may exceed $6 trillion by 2021. Therefore, banks, tech companies, hospitals, government bodies, and other sectors invest in cybersecurity infrastructure to protect their business practices and millions of customers.

As technology leaves an indelible environmental footprint, Sustainable IT is emerging strongly as a technology of great importance. If the technology takes us towards the future we want, it cannot leave too deep a carbon footprint. This opens up vast avenues of learning in IT processes that can be integrated and automated for operational efficiencies. How blockchain and cloud provide alternatives to curtailing carbon emissions is a whole new area worth learning.

A culture of Continuous Learning

As Peter Drucker said, "The only skill important in the 21st century is the skill of learning new skills." Below are some best practices of excelling in workplace culture:

360-degree learning: The life-long educational mindset of today has made 360-degree learning essential. It's a time to learn from peers irrespective of seniority or experience.

Adaptability: Tech or soft skills, adaptability will be the differentiator, and innovation and creativity will be core to this mindset. Adapting to today's workplace culture means a readiness to learn, and reskill and upskill oneself and others.

Collaboration: Skill development is about how you scale, learn and collaborate across sectors. If you are an expert in one field, learn and master an allied or new skill. Such cross-sector application will ensure seamless transition across different skill areas.

Agility: Agility is at the core of experimentation. Adopting agile principles and robust learning give educational institutes and enterprises insight into what works for their people and what doesn't and make appropriate course corrections.

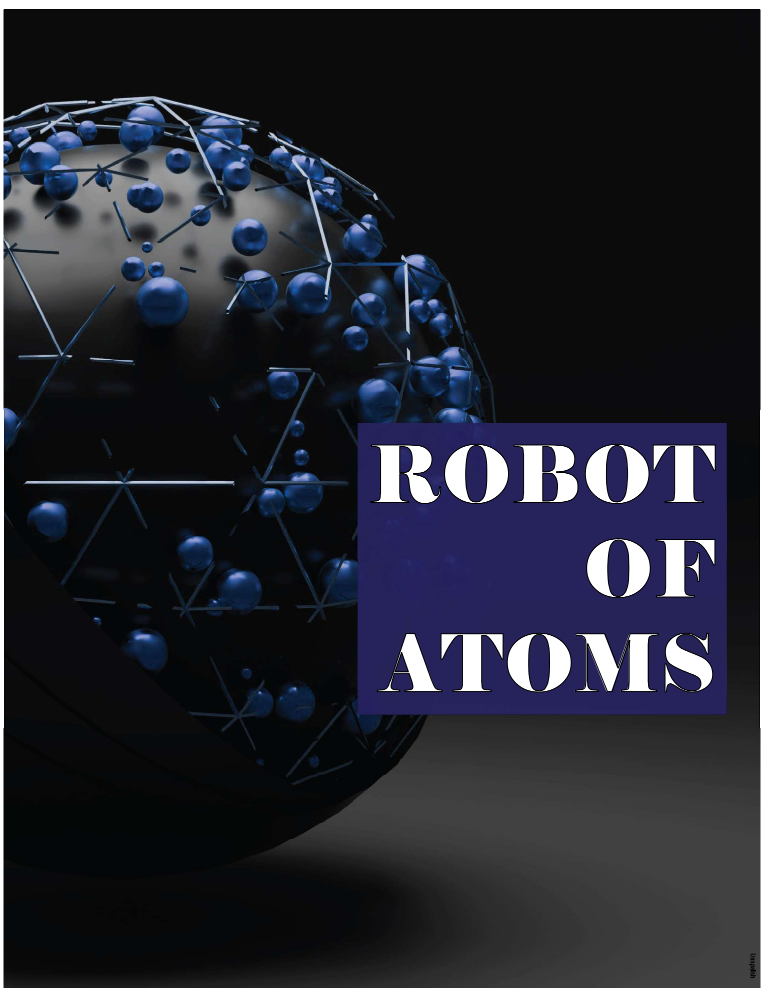
Global perspective: In the New Normal, localization and globalization go together. Your workplace skills may suit a local setting, but you should aim to develop a global perspective. Today, there are no restrictions in learning, and cooperation and global cross-functional collaboration are a given.

Trust: An important quality for employees and employers alike is trust. It impacts how employees work together and collaborate. No workplace quality is more desirable than having trustworthy and collaborative workplaces aided by open communication.

The future roadmap

To train themselves for the new normal, students have to identify courses of their interest. These are important times for institutes and enterprises; they need to recognize what skills will work in the future workplace. And for the workforce of today – and tomorrow – it's your competencies that matter, not your credentials.

For enterprises, institutes, and employees – present and future – it's time for a new start!



ROBOT OF ATOMS

Motivation

Naturally occurring atoms are the potential ingredients used in undertaking Quantum Information Processing, wherein the electrons that exist in atomic orbits are bound to exist at multiple locations with some probabilities as a part of their Quantum nature, which are exploited to store Quantum information in the form of elementary units called as qubits (just like bits in conventional computing) and process them with exponential speed up. However, qubits based on just valence electrons can be very unreliable due to fragility of qubits to the surrounding environment which induces noise into the system via disturbing the coherence of the qubit systems.

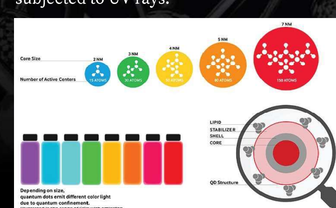
Thus, to overcome such an inability Quantum Research Community looked for an alternative system which is free from the environment induced noise. Such systems are created by a microscopic box containing electrons, called as **Artificial Atoms**, wherein the movements of electrons were made to mimic the dynamics of electrons in general that exists in naturally occurring atoms. Moreover it is possible to have a higher number of electrons in such boxes, which allow one to realize much more robust qubits compared to which were previously thought possible with conventional atoms.

As we humans went ahead to create Robots, which are machines employed to undertake all our tasks with ease and perfection, wherever possible in which human presence and cognizance is not mandatory. Following the similar lines we call these Artificial Atoms as robots of natural atoms, which are employed wherever the naturally occurring atoms are not suitable. In fact artificial atoms do not possess the nucleus unlike conventional atoms, a notion which is similar to the Robots lacking in the sole intelligence we humans possess in general. Let's try to understand more about these Artificial Atoms in this article!

Peculiarity of Artificial Atoms

Artificial atoms are constituted by confining a charge per say an electron to a three dimensional space mentioned above as microscopic boxes (which are known as **Quantum Dots**), wherein the charge and energy of a sufficiently small charged particle taken from metal or semiconductor are quantized just like those of an atom. The current passing through such a quantum dot reveals atom-like features in a spectacular way.

The Quantum dots with the same charge configuration but different sizes give off different colours when subjected to UV light. For example Cadmium Telluride of different sizes gives off different colours when subjected to UV rays.



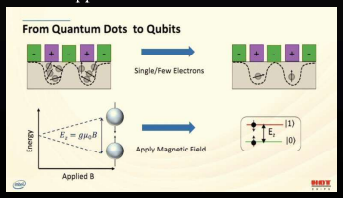
Credit: Samsung Display
Reference:https://www.allaboutcircuits.com/news/samsung-and-lg-exit-the-lcd-market-quantum-dots-and-organic-leds-take-the-stage/

One of the several advantages of Quantum Dots is that they are small enough to have quantum behaviour and at the same time large enough to remain stable while remaining in the Quantum regime. Hence, these materials are now being seen as one of the means to realize the potential building blocks of upcoming Quantum Computers.

Artificial atoms for Quantum Computers

It was theoretically proposed in the 1930s to create Artificial atoms having no nucleus but just electrons confined to a region, and then it took more than six decades to experimentally realize them.

The Artificial Atoms realized in silicon chips offer improved stability for quantum computing, moreover with a higher number of electrons, they can be reliably used for calculations in quantum computers unlike single electron based conventional atoms which happened to be unreliable.



Credit: Intel's Components Research Organization.
Reference:https://www.hpcwire.com/2020/08/19/intel-unveils-its-quantum-dots-is-accelerating-quantum-computing-effort/

A silicon qubit based chip.
Credit: UNSW Sydney
Reference: https://cosmosmagazine.com/science/physics/artificial-atoms-create-stable-qubits/

The process of preparation of an artificial atom involves application of voltage to the silicon via a metal electrode having positive charge, which attracts spare electrons from the silicon to form the quantum dot, in an infinitesimally small space of only around 10 nanometres in diameter, with gradual increase in voltage would lead accumulation of new electrons in the same space.

In comparison to a real atom, wherein a positive charge nucleus is in the middle, surrounded by the negatively charged electrons in three-dimensional orbits, in the case of Artificial Atoms, the gate electrode plays the role of positive charge, which in fact separated from the electrons by an insulating barrier of silicon oxide, and the electrons orbits around the centre of the quantum dot within a certain shells, in two dimensional circular disc instead of spherical shaped space.

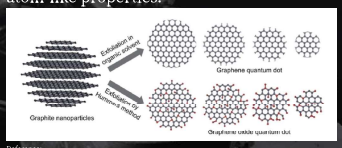
Addition of an extra electron leads to creation of higher order Quantum dots equivalent of Hydrogen, Lithium and Sodium so
on in the periodic table, wherein the lone electron in the outermost shell offers qubit realization, moreover having the either paired or single electrons within the innermost shells ensures the stability to outermost electrons. However, if there exists a pair of electrons within a shell , then they complete the shell and become unavailable to realize a qubit as their spins align opposite to each other resulting in zero spin.

When it comes to realization of qubit via superposition of quantum states, an unpaired electron's spin that could exist in multiple states, is employed by associating the bits 0 and 1 to their spin orientation having different energies. Hence, it is crucial to have an odd number of electrons, for example, an artificial atom with five electrons, or 13 electrons, is much more robust.

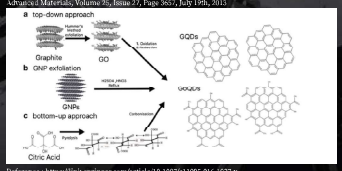
The new artificial atoms having the localized electron states with the same energy allow for switching between different quantum states, which further allows to store information. Here the electrons preserve arbitrary superpositions for a long time, which is an ideal ingredient for realizing quantum computers, moreover, the involved method has the big advantage of scalability, as it allows to fit many such artificial atoms on a small chip required for Quantum Information Processing.

Graphene based ARTIFICIAL ATOMS?

Among different ways of creating artificial atoms, the simplest one is putting electrons into tiny flakes, for example, cutting out a thin layer from a material, ,or chemically producing a single layer structured material with few electrons in its surface orbitals. The newest and most exciting technology is creating Quantum dots using Graphene extracted from Graphite, one of the allotropes of carbon with Diamond being the other one. Graphene, which is a single layer of carbon atoms arranged in a two-dimensional honeycomb lattice, whose name is derived from "Graphite" with the suffix "ene" to emphasize the fact that it is a allotrope of carbon with numerous double bonds. These quantum dots are tiny prisons for electrons confined to certain orbits and exhibit atom-like properties.



Reference:
Advanced Materials, Volume 25, Issue 27, Page 3657, July 19th, 2013



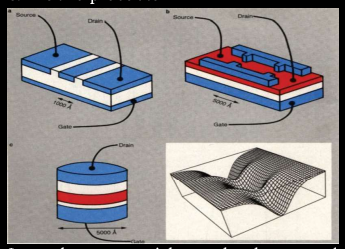
Reference : https://link.springer.com/article/10.1007/s11095-011-0537-x

However, the symmetry of the material is broken by the edges of the flake as they are not perfectly smooth, which results in reduction of the special four-fold multiplicity of states in graphene to the conventional two-fold one. In order to avoid such symmetry loss, one could look for clever combinations of electrical and magnetic fields to trap and confine the electrons from the surface orbital of the graphene to that particular region, in this way a tiny region is created within the graphene surface, in which low energy electrons can be trapped, wherein the electrons are forced into tiny circular orbits by applied magnetic field.

Transistor based ARTIFICIAL ATOMS:

Apart from creating artificial atoms by extracting small particles of metal or semiconductor, it is also possible to make them with help of electronic circuits and chemical processes. Similar to natural atoms these also possess discrete spectrum of energy levels.

When it comes to electronic circuit based preparation, classification is done according to the transistors used:
a. All metal atom
b. The controlled barrier atom
c. The two-probe atom



Inset shows potential seen by the trapped electrons as a function of position.
Reference: Physics Today, Page 24, January 1993

In all these three methods, electrons are confined to a smaller region by employing the material boundaries, in particular surrounding the electron-containing structures, say metal (regions of blue) or semiconductor (regions of red) particles with insulators. In all metal atoms, the electrons have to tunnel through an insulator to constitute a current from source to drain, and along the way they would be trapped to very small regions, wherein the gate metallic electrode used to have a control. In the case of controlled barrier atoms, an electric field induced at the interface of insulator and semiconductor by the positive voltage of the gate electrode, would lead to quantization of energies of electrons motion along the interface, and at low temperatures electrons move only in two dimensional direction. When a negative voltage is applied the electrons do not accumulate at the interface and confine to a narrow channel between the source and drain, which further could be controlled by using suitable source and drain currents to have potential barriers further leads to creation of Artificial Atoms as shown in the figure inset.
The two probe atom case is similar to all the metal atoms with gate electrode missing, here the semiconductor is sandwiched between the insulators which induce barriers that confines the electrons.

Apart from QC the future prospects of ARTIFICIAL ATOMS:

Ability of Artificial Atoms of different sizes, for example Cadmium Telluride, to emit different colors in response to UV light allows one to develop display screens required for electronic devices like televisions, mobile screens, and other display electronic gadgets.

Artificial Atoms with single, double, triple and higher number of electrons suitable for replacement of conventional atoms such as Hydrogen, Helium, Lithium and so on with the same number of electrons, respectively, in making artificial compounds., but still advancements in necessary technology are yet to happen.

In fact having this path breaking technology based on Artificial Atoms is highly mandatory for the future as the number of electronic elements on a chip would double every 18 months according to the Moore Law. With conventional atoms, such advancement along with reduction in the chip dimensions is not possible as the control over flow of charges become very difficult.

By - Quantum Computing Club IIITDWD

Mr. Gaurang Belekar(Club Secretary)
Mr. Saurabh Mani Tripathi(Club Organizer)
Mr. Neel Sahakar(Club Organizer)
Mr. Eswar Ashish(Club Organizer)
Faculty Mentor: Dr Aswath Babu

SOMETIMES!

'Travel of passengers from member countries of the European Union, The European Free trade Association, Turkey and the United Kingdom to India is prohibited with effect from 18th March 2020.'

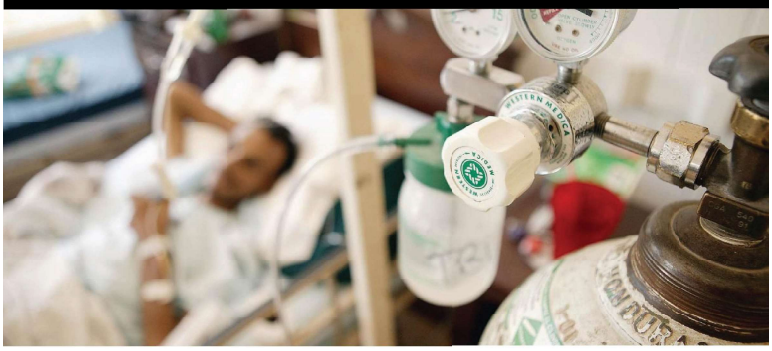
I read this travel advisory on 17th March 2020 in the UK.
My first instinct was to pack everything at hand,
Book the earliest flight,
And reach India before the borcers closed.
I started checking flights frantically,
Only to realize that some airlines had already aborted their operations,
And the ones that were available were awfully long and expensive.
I called up home to discuss my options.
My parents being far more practical and cool-headed than I am,
Told me that I was at a relatively safer place and well taken care of,
That I might carry the virus and put everyone else at risk.
I took deep breaths to fathom what they said.
I was indeed lucky to be at a safer place,
Unlike scores of people who were stranded in the middle of nowhere.
But, I never knew that, someday, not going home would be the best thing for me!

-Ms. Arya katwe

REBIRTH OF A FAMILY: OXYGEN CYLINDER

-MS. YASHASHVI SINGH

It was noon. I could feel the scorching sun sip the last drop of water that my body had saved for its survival. I rushed into my house, sprayed sanitizer on my hands... hands that were now a shade of purple-blue. After riding the two-wheeler for two hours continuously in search of an injection that could save my father's life, my hands were numb; my eyes were on the verge of letting down the guard of emotions, and my head? My head felt dizzy but still determined not to give up. I rushed upstairs straight to my father's bed, hoping that finally, this rare injection will bring his smile and the glow in his eyes back. Before I could call the nurse, my mom broke into tears of pain and helplessness. My delicate heart absorbed all the sharp-edged pieces, not letting a single scream escape my mouth, not letting a single tear roll down my cheeks. She cried, "The oxygen cylinder is empty." the precious cylinder that we paid 20,000 bucks for and that was brought to us from a far away land was empty after 36 hours. Dad was gasping, taking deep breaths, and my heart slowly was preparing to find its peace.



THE WORLD TEST CHAMPIONSHIP

From an Indian fan's perspective

The Ideology behind WTC

The World Test Championship (WTC) started to promote Test Cricket as the audience in this segment was slowly moving towards the shorter form of the game (i.e., T20 Internationals).

The Commencement

WTC started on the 29th of July 2019, with the Aussies winning the Ashes 3-2 to England.

India's Road to WTC Finals

The Indian Cricket Team, led by Virat Kohli, believed in the ideology that 'A test match is won if the team can pick 20 wickets.' Our pace attack comprising Ishant Sharma, Jasprit Bumrah, Mohammed Shami, and Umesh Yadav were enough to dominate the opponent and pick crucial wickets on foreign soil, which wasn't the case earlier.

Comfortably winning the early leg.

India's journey started with a series win against the Windies as in the Caribbean in August 2019, where our pacers were lethal with the ball, and, eventually, it's in this series that Jasprit Bumrah went on to pick his first Test Hat-trick.

The next two series were played in October and November, respectively, against South Africa. Bangladesh didn't quite possess a threat because India was always dominant at home as a cricketing nation. After all, our front-line Spinners Ravichandran Ashwin and Ravindra Jadeja were too good for the opposition to handle. However, white-washing the South Africans at home was a satisfying feeling for all the Indian cricket fans as we lost to them in their backyard back in 2018.

During this period, India played their first-ever Day-Night Test against the Bangla Tigers. Ishant Sharma picked a five-for, and the Indian captain, Virat Kohli, went to score a century. Rohit Sharma and Mayank Agarwal too secured their spots as openers following their incredible performance at home

Taste of their own Medicine

After continuing their domination at home, India was against the BlackCaps in February 2020, a way more dominant team at home.

In a two-match series encounter, New Zealand had the upper hand, and Indian batsmen crumbled to the swing of Tim Southee, Trent Boult, and Kyle Jamieson. Little did we know that it would be the same pace attack that would stand as a barrier for us in the finals of the World Test Championship.

The Ultimate Barrier

The entire world came to a halt with the Outbreak of COVID-19, and eventually, the matches of the World Test Championship were either being rescheduled, postponed, or canceled. With the pandemic, the ICC made changes to the scoring system of the World Test Championship. Cricketing fans were elated as Test Cricket resumed on the 8th of July 2020 with the West Indies vs. England Series in England.

The Final Contenders

During the last leg of the World Test Championship post-COVID, with the revised rules by ICC, New Zealand were the clear favorites for the WTC Finals as they had just two Home Series remaining, and the BlackCaps are way too strong at home.

Meanwhile, India was about to face the mighty Aussies in December 2020 in their backyard for the Border-Gavaskar Trophy, which was going to decide India's fate in the World Test Championship.

The Iconic Border-Gavaskar Trophy

Defeating Aussies in their backyard was a mammoth task, and India was about to lose its star batsman and captain as Virat Kohli was heading back home. By then, India had lost the first test match of the series following the 36-run Collapse, which no Indian fan ever wants to remember. India's chances for the World Test Championship finals was fading away.

Just then, the stand-in skipper Ajinkya Rahane inspired the team with his magnificent hundred at the MCG and led the side to victory in the 2nd test.

All hopes were back, and India suddenly had the Upper Hand in the Border-Gavaskar Trophy. The star opener Rohit Sharma returned for the remainder of two test Matches.

The 3rd match in Sydney witnessed two Indian batsmen, Hanuma Vihari and Ravichandran Ashwin, surviving an entire day battling hamstrings and back spasms to keep the hopes of a nation alive, and eventually, it ended in a draw.

The 4th and final encounter witnessed two outstanding knocks of 91 and 89* by youngsters Shubman Gill and Rishabh Pant, respectively, chasing 327 to conquer Fortress Gabba and hand India a series win in Australia. It will always stand out as a proud moment in India's cricketing history.

The Final Hurdle

After winning the Border Gavaskar Trophy, India's chances of securing a place in the Finals of the World Test Championship was looking quite firm as they had to either Win or Draw a four-match test series at home against England.

Although it was a home series and India being predominantly strong in their home ground, it wasn't going to be easy as England played for a spot in the WTC Finals. However, India still had the upper hand as they were confident after the victory of the BG Trophy.

India lost the first match of the Series following Joe Root's masterclass knock of 218. India had to win at least two out of the remaining three matches to secure a spot in the WTC Finals.

Fortunately, the duo Ravichandran Ashwin and Axar Patel spun a web across the batting line-up of England. Eventually, India went on to win the next three matches of the series, also qualifying for the Finals of the World Test Championship.

In this series, we witnessed Ravichandran Ashwin's skills, scoring 106 in his hometown (i.e., Chennai) in the 2nd test and Rishabh Pant fearlessly taking on James Anderson in the 4th test at Ahmedabad and eventually scoring a hundred.

The Conclusion

After a fairytale ride, India was all set to play the WTC Finals at Southampton on the 18th of June, 2021, but unfortunately, we were handed a defeat in the hands of New Zealand. Let's hope to win the next World Test Championship.

- By

Mr. MOHAMMED ABDUL SOHAIL

WHAT A WONDERFUL DAY

It has been more than a year since all of us adjusted to our new life during this coronavirus period. A lot has happened. What happened to the world during this time hasn't been pleasant for many. The sole purpose of writing this article is for all of you to resonate with me since we have experienced similar things.

At that moment, all I wanted to do was to have food prepared by my mother. When online classes started, we were completely lazy. Attending classes from the comfort of home was like a dream come true for some. I utilized that time to learn new skills, and I am happy to say that those skills are now beneficial to me. But still, there was one thing that bugged me - I hadn't even met with my friends in Mumbai. I was a college student grounded in my house - definitely not something anyone of us had wished for.

Life wasn't going as I imagined. The number of Covid cases were rising, there were new heights on the graphs every day, and people were dying. Our country was in a bad state, and the lockdown affected many people's mental health.

You must have heard of Sushant Singh Rajput's death. One thing that we all can agree on was that he had no support. The death of a star made people realize that many were battling this problem. People started reaching out to one another. Influencers, even abroad, took this case seriously and started spreading awareness regarding mental health.

After some time, the lockdown was lifted, and people were back on streets. That moment felt good. Making plans with friends was the most important thing then. Discovering new places and visiting the old ones was pure because we knew what we were blessed with. I stayed out of my house every day. The world was up and running. In some way, the fun life that we wanted, returned.

Fast forward to December - another college semester had ended online. Everyone was expecting to go back to college, meet their friends, eat together and watch movies late at night - but that didn't happen. Colleges were still closed. The government started opening some colleges in January, which resulted in increased coronavirus cases in the country. Many college students caught the virus. The second wave had begun!

We are in a complete state of lockdown yet again. We might not meet our friends, but I want to tell you that it will pass. We will fight the virus and win again. If you ever feel lonely, talk to someone you are friends with. Only talking and sharing will help you get through this tough time.

I made minor changes in my life which are helping me a lot. Start embracing even the smallest things in life. One should have some time of the day reserved for themselves. Normalize spending time with yourself. It might sound cliché, but in my 'me time' every day, I watch the sunset with a cup of coffee. Let me tell you! It has brought me peace. The above photo, which I clicked, is of the view from my house. I was bored of this view after looking at it every day. But now, I realize the importance of small things and the world that we are gifted with. It's just like what Louis Armstrong said:

"I see trees of green
Red roses too
I see them bloom
For me and you
And I think to myself
What a wonderful world
I see skies of blue
And clouds of white
The bright blessed day
The dark sacred night
And I think to myself
What a wonderful world."

- Mr. Sanchit Goel

LIFE BEYOND

-Mr. Kusumanchi Eswar Ashish

"Given many millions and billions of earth-like planets, life elsewh in this universe without a doubt does exist. In the vastness of this universe, we are not alone."

-Albert Einstein

When was the last time you thought, " Are we alone?" Many of us asked this question to ourselves. An organization called **SETI (SEARCH for EXTRATERRESTRIAL INTELLIGENCE),** founded in 1984 by Carl Sagan and Jiv Tarter, has been trying to answer questions regarding the existence of life beyond our home.

According to data, our universe is 14 billion years old, and our galaxy is 13. 5 billion years old. In this huge span, many life forms would have been developing on their respective planets. To know how many planets in our milky way galaxy can potentially consist of intelligent life, a great scientist Prof. Drake gave an equation in the early 1960s called Drake's Equation. But to date, there are no possible solutions for that equation.

N = (R*) x (fp) x (ne) x (fl) x (fi) x (fc) x (L)

Where N is the number of existing intelligent life forms in our galaxy
R* is the rate at which the stars are born in our galaxy
fp is the fraction of stars with planets
ne the average number of habitable planets
fl is the fraction of planets where life exists
fi is the fraction of life forms that can access intelligence
fc is the fraction of life forms that have transmitting technology
L is the time span of the transmitters and the life forms.

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(Drake's Equation)

To date, we have not found much data to complete this equation. But thanks to the Kepler satellite- we have data about Earth-like planets in our galaxy. We might be able to collect the data required to solve the equation in the next few decades by observing a million planets by satellites and observatories.

https://www.britannica.com/topic/Kepler-satellite

(Kepler Satellite)

This equation also gives a haunting hypothesis on the longevity of human life. As we know, fractions can have a maximum value of one; when we consider all the variables to be one and the rate, a constant, then N is directly proportional to the time span of life forms.

$N \propto L$

That means the existence of life forms depends on the time span they exist. So, to find or get found by intelligent species, we need to exist. In this vast universe, it takes a significant amount of time for signals to travel. We cannot be sure that we will exist till we get to know the existence of other beings.

In the process of finding intelligent life forms, many projects and missions have taken place. The first mission launched the **Pioneer 10 space probe** on **2nd March 1972,** with an image explaining the anatomy of the human body, the physics of our home planet, and the basic mathematics that we humans use with some alphabets of ancient languages.

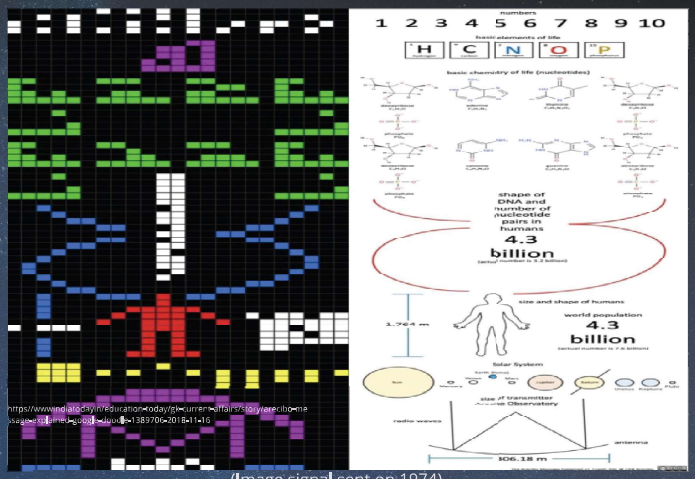
https://wwwnasagov/sites/default/files/thumbnails/image/pioneer10_artjpg

(Pioneer 10 Probe Satellite)

The next mission took place in the year 1974, under the supervision of Dr. Frank Drake. The Arecibo Radio telescope observatory, built in Puerto Rico, transmitted an

image-based signal explaining the number system, the elements of chemistry and itspounds, the DNA structure, human anatomy, and the solar system. On the 20th of August 1977, the sounds of earth's nature with greetings and peace quotations

Ehram was listening to the Big Ear Radio Telescope, he noticed a strange signal from the Sagittarius area of space. He decoded it into characters -6 E Q U J 5. The decoding process of radio signals is based on their intensity. The intensity can vary from



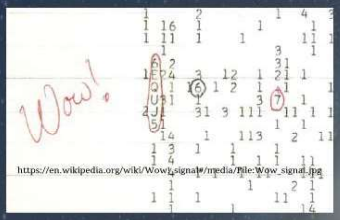
(Image signal sent on 1974)

in 120+ languages were recorded onto a disc. This disc was mounted to a satellite, where its audio systems played them and displayed images of the earth.

No proper reply from the other parts of the universe has been received yet. But, on15th August 1977, as Dr. Jerry

1-10 and A-Z. Most signals have an intensity ranging from 1 to 3. This signal was shockingly intense, and upon seeing it, he wrote a wow note. After that, the signal was named the Wow signal. It existed for such a short time that the scientists could not locate its origin. Since then, we have not received such strong

signals. Many hypothesized that it was a signal by a satellite or a reflection from the military bases but later confirmed it was none of them. The Wow signal is still a mystery messages to those parts of the universe, with potential for intelligent life. In 2014 the director of SETI, Dr. SETI is still trying to receive and send



(Wow Signal)

Seth Shostak stated that many big developments are expected in the next two to three decades in this field. Scientists have studied the fact that we have not found other intelligent life forms, and Dr. Fermi has given a hypothesis called the Fermi Paradox to explain the reason behind this.

According to this paradox, the universe and its life forms are uncertain, especially if they are intelligent. Humans cause problems like global warming, misuse of nuclear power, etc., that can potentially lead to our end. Similarly, other intelligent lives might have gone extinct. Other

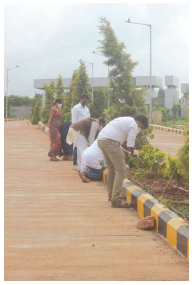
reasons include - the delay in a signal to reach a planet, by which time the existing life forms could go extinct, and the inability to decode signals of forms unknown to humans. NASA and SETI are working together to decode language structures and signals to receive signals from a wide spectrum range. The other reasons can be like the species is too intelligent to ignore as we can be of no use for them, or the species may be too scared to reply. Aliens around us might be capable of accessing higher dimensions too.

Who knows? You might be sitting next to one!

The only thing we can and must do is, survive till we can harvest a good relationship with the other cousins of the universe.

Independence Day

At the onset of 75th Independence Day of India, there were celebrations all over the country. It was a moment of pride for IIIT Dharwad as it hoisted the tricolour flag from its fully constructed campus and dedicated the institute to the nation. Prof. Kavi Mahesh, the founding Director of IIIT Dharwad, took this opportunity to speak about India and the feeling of being an Indian with anecdotes. India has come a long way since Independence. It has made progress in sports, manufacturing and production, healthcare, hospitality, education, and science and technology. The campus was echoing joy and laughter as the community came together for a 'Shramadaana' activity, a cleaning drive for a green and a clean campus.



SOCIAL MEDIA

It is so good to have platforms like Facebook, Instagram, and Youtube to share content that reaches the world within minutes. But, in this article, I would like to enlighten you about the other side of this world.

Reality no.1:

Most youths spend their time on social media on unnecessary things like politics, spoofs, porn, etc. Little do they know how much social media is influencing them on an everyday basis. You may be under the impression that you are getting new content every day. But in reality, you are their product.

Reality no.2:

You are not utilizing social media to earn money. You are helping someone else earn theirs, and this is true for most of us.

Reality no.3:

Prashanth Kishore, the number 1 political analyst, opines that social media is the main reason for manipulating elections.

Reality no.4:

Social media affects share markets. Recently, Coca-Cola's shares came down drastically because Christiano Ronaldo kept its bottle aside. Adani's stocks also came down because of rumors spread on social media.

If you want to release your IPO in the share market, you can use social media to boost your stock value.

Reality no.5:

You can earn through social media by creating good content. Many creators quit full- time jobs to work on YouTube.

If you have an idea, you can create a channel. Not only this, as a student, you can create content and share it with the world.

Reality no.6:

Social media can make you a celebrity overnight. CarryMinati is a big celebrity today. Most of us don't even know his original name. He became popular for creating content on YouTube.

A brand is what sells today.
To become a politician, you require a brand.
To make your book a bestseller, you require a brand.
To get loans from a bank, you need a brand.
To get a contract, you need a brand.
Brand is associated with wealth.
So, I would suggest using social media to create good content and raise awareness rather than become addicted to it and promote consumerism.

- Mr. MSVPJ SATHVIK and ESHWAR ASHISH

WHO ARE WE? WHY ARE WE?

The world is more than what we see, do, and what happens. Are we aware of this world? Or are we just following the path that is laid by brilliant minds? What is the role of an average person in today's world?
Wherever we look, everyone is choosing a predefined path created by the brilliant minds who did not choose a predefined path themselves. So, why are we choosing what everyone is choosing? Do we not have the courage to decide our path?

Kismat Theory: So,what is Kismat? In simple words, "Kismat is the impact of others on your work or impact of others on people associated with your work." If we say that the impact is negative, then Kismat is not in your favor; if it is positive, then Kismat is in your favor. And that impact is decided by you. If the bonding with those nfluencers is positive, then the ball is in your court. So, if you are blaming Kismat for something, stop doing it because it's you who controls your Kismat.

Why are we sitting idle & who are we waiting for?
The life expectancy of an average person in today's world has decreased at a rapid pace.

If you are waiting for someone to come to you and help you, you are wasting your time. Get up and start working now within 10 seconds. If you ignore these 10 seconds, then the idea is out of your head.

Why do people follow predefined paths?
People follow predefined paths because it is tried and tested and gives a clear picture and full guidance so that nobody has to go out of their comfort zone.

People follow traditional methods to solve their problems: Problems are often the same in everyone's lives. If we use traditional methods to solve new-age problems without using our creativity and knowledge, the problems remain unsolved. If we apply creative methods, we will inculcate the sense of right and wrong and create our own path.

What qualities should we exhibit?
These qualities are simple. First, always think out of the box; second, never follow anyone entirely. And lastly, always use your brains and knowledge in every aspect of life.

- Mr. Pankaj Kumar

SUFFER FOR OTHERS

To all my self-indulgent friends, today I want to tell you something about myself. I am the one who makes the earth look beautiful. I am the one who lived where you are living today. I am the one whose life you have taken. I am being killed for your convenience and benefits. You may not hear my voice, but science has proven that I do have a voice. We all are created by one God, then why is there inequality?

I give you fresh air to breathe. But, what do you give me in return? A few days ago, someone cut my friend in front of me. Every day I see someone cut off. How would you feel if this happened to you? Relate it to the current covid scenario. How do you feel when your fellow humans lose their lives?

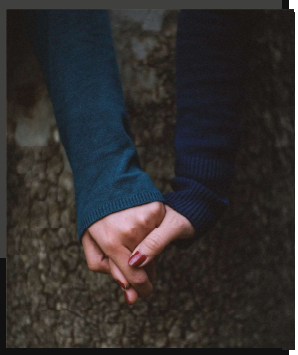
Why do you not call it apandemic when millions of trees lose their lives in every corner of the world year after year? I hope that you become my voice and use it to save the remaining trees.

'People who don't save trees will soon live in the world that doesn't save people'

Your friend,
TREE

-Mr. Tanzeem

My Diary



During my visit to Bangalore in 2019, I learned from one of my friends that my engineering classmate from the Electronics department was suffering from cancer. It was hard to digest because she was hail and hearty and was running a gurukul at her mother's home, which involved creating awareness about Bhagavadgita to school children.

She quit her full-time job at a reputed MNC and also conducted chanting of Lalitha Sahasranama every year with hundreds of people.

During college, all my friends gathered at her place frequently. We talked about everything under the sun. She was a joyful person to spend time with.

After hearing about her ill health, I met her. I was glad that we were meeting after 27 years and that she was recovering with proper treatment. I promised to meet her during my subsequent visits to Bangalore.

Shortly after, the spread of Covid became rampant, and we were confined to our homes. One fine day, I received a call from my friend in the US after 30 years. She informed me that a WhatsApp group was created for our batch. We spoke for about 45 minutes, reminiscing our college days and talked about our families. In the end, she broke the news about the same friend who was undergoing chemotherapy. I was shocked to know that she had developed yet another cancer after recovering from the previous one. I checked on her and learned that she had already undergone 3 chemotherapies, and the 4th one was due soon.

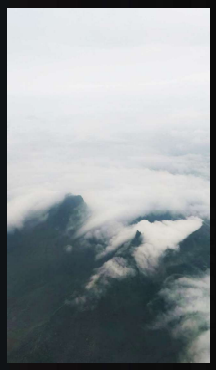
I could empathize with her as I had lost my father-in-law to cancer. We hoped and prayed for her speedy recovery.

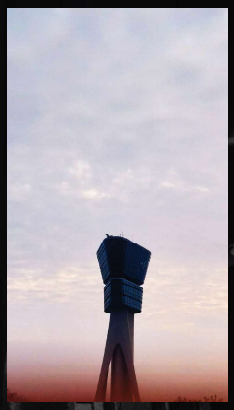
I could keep in touch with my batchmates during lockdown through a WhatsApp group. It was a virtual reunion after 30 years. I realized how important it is for all of us to stay connected through difficult times.

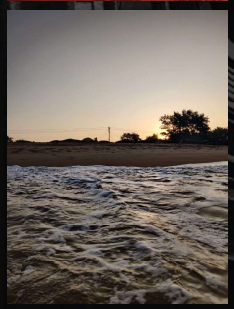
I am ending this note with hopes and prayers for my friend. I will soon be back to share my childhood memories with you!

-**Ms.**Suma Shetty

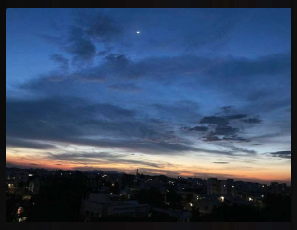
PHOTO GALLERY



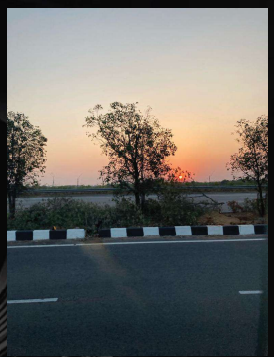




-Mayank Kumar



-Sankeesa Anshu



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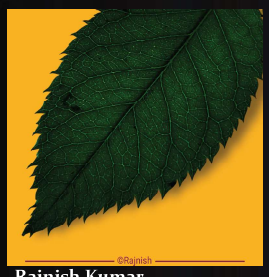

-Rajnish Kumar

-Mayank Kumar

DID YOU KNOW?

1. TYPEWRITER is the longest word that can be made using the letters only on one row on the keyboard.

2. People visit France more than any other country.

3. Sleeping in a cold room can help you slim down.

4. The current American flag was designed by a high school student. It was a school project and he was graded with a B-. It was changed to A after his design was approved.

5. Thanks to 3D printing, NASA can basically E-mail tools to astronauts.

6. The only food that doesn't spoil is Honey.

7. Continental plates drift at about the same rate as fingernails grow.

-Mr. Aman Vignesh Kundeti

"Knowledge has birth, but it never dies"

"Knowledge is like water, it has origin but no death, the one who swims in knowledge not only makes himself wise but also spreads knowledge to the world and makes knowledge eternal"

Dr. Rajesh N.S.
Cheif Editor

"....and all I could do was witness, hope, and pray".

[Wait for the next issue]