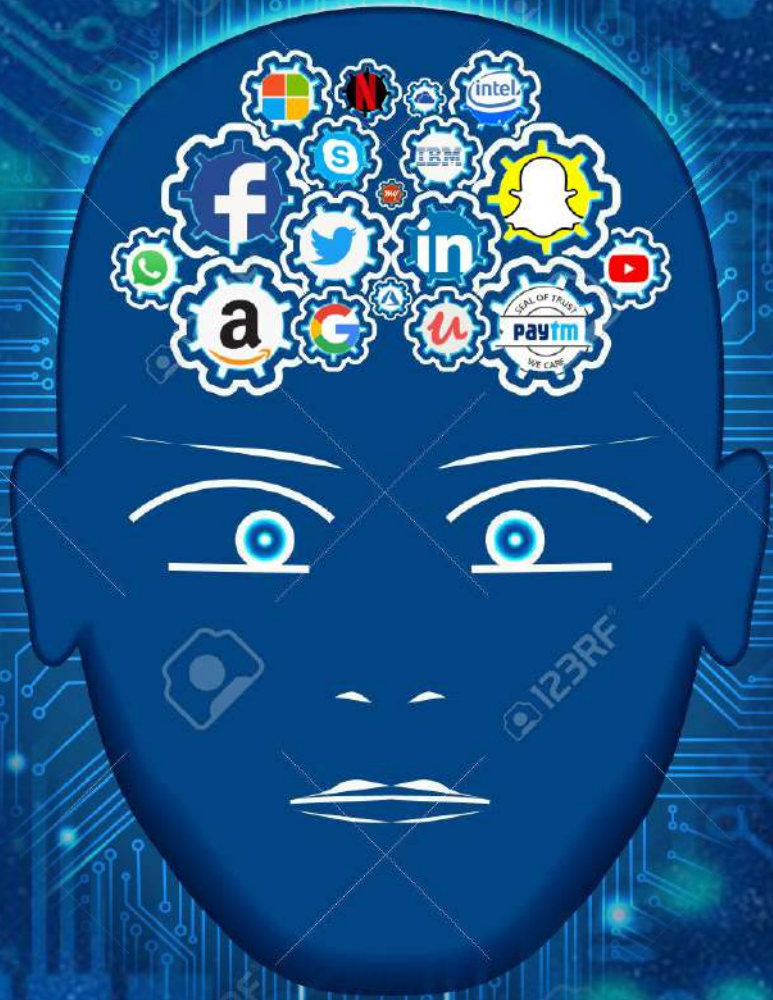


# Simplius

Endless path to endless erudition

## Impact of Technology on Human life



*In pursuit of Innovation, Infinity and Beyond...*

### Department of Computer Engineering

# COMPUTER ENGINEERING DEPARTMENT

## *VISION*

"To become a department of national relevance in the field of Computer Engineering."

## *MISSION*

The Department of Computer Engineering is committed to nurture students with sound engineering knowledge in the field of computing through effective use of modern tools with a focus on global employability by imbibing leadership qualities, ethical attitude, lifelong learning and social sensitivity.

## *PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)*

Students of BE Programme in Computer Engineering will be able to:

**PEO 1:** Attain Sound Engineering knowledge and use of modern tools effectively to solve real life problems (KNOWLEDGE)

**PEO 2:** Attain need based skills and life long learning to ensure global employability (SKILL)

**PEO 3:** Become successful professionals and responsible citizens with good leadership qualities and strong ethical values (PROFESSIONALISM)

## *PROGRAMME OUTCOMES (POs)*

**PO 1: ENGINEERING KNOWLEDGE:** Apply Knowledge of Mathematics, Science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

**PO 2: PROBLEM ANALYSIS:** Identify, Formulate, Research Literature and Analyze Complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

**PO 3: DESIGN / DEVELOPMENT OF SOLUTIONS:** Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.

**PO 4: CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS:** Using research based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions

**PO 5: MODERN TOOL USAGE:** Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of limitations.

**PO 6: THE ENGINEER AND SOCIETY:** Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.

**PO 7: ENVIRONMENT AND SUSTAINABILITY:** Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

**PO 8: ETHICS:** Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practices.

**PO 9: INDIVIDUAL AND TEAM WORK:** Function effectively as an individual, and as a member of leader in diverse teams and in multi-disciplinary settings.

**PO 10: COMMUNICATION:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.

**PO 11: LIFE-LONG LEARNING:** Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

**PO 12: PROJECT MANAGEMENT & FINANCE:** Demonstrate knowledge and understanding of engineering and management and leaders in a team to manage projects and in multi-disciplinary environments.

### **PROGRAM SPECIFIC OUTCOMES (PSO)**

**PSO 1: Develop** academic aptitude and apply knowledge of computing and mathematics to computer science problems and thereby design and develop Software and Hardware Systems.

**PSO 2: Enhance** research skills and utilize advanced computing tools for analysis, design and implementation of computing systems for resolving real life / social problems.

**PSO 3: Utilize** multi-disciplinary knowledge required for satisfying industry / global requirements and hence develop an attitude for life long learning.

**PSO 4: Have** all round personality with skills like leadership, verbal and written communication, team work, sensitivity towards society in order to become valued and responsible professionals.

# TEAM

# Symbolus



**Mr. Adit Rathi**  
Head of Art-Design



**Ms. Athashree Vartak**  
Chief Editor



**Anand Vishwakarma**  
Art Designer



**Rakshit Shetty**  
Art Designer



**Parth Dahima**  
Editor



**Srishti Singh**  
Editor

# Messages



# DEAN'S MESSAGE



**Dr. R.R. Sedamkar**

To balance minds with progress in the field of technology, today's engineers must possess an ever-changing skill set and they should be aware of its impacts on human beings. With that in mind, this edition of *Nimbus* focuses on the Impact of technology on human life. *Nimbus* has not only proved to be the technical platform for TCET's CMPN Department students but it also serves as a source of inspiration to young minds.

The magazine allows students to share their views and ideas regarding the development in technology and engineering as these are the crucial part in this ongoing competitive world and hence it churns out the technical writing skills among students.

I would like to congratulate the students and faculty members of the editorial team for their commendable performance in publishing this edition of *Nimbus*.

Wishing everyone good luck and all the success in their future endeavours.

**Dr. R.R. Sedamkar**  
**Dean Academic &**  
**Mentor Dean**



**Dr. Sheetal Rathi**

# HOD'S MESSAGE

*NIMBUS is not just a magazine, it is a vessel which carries a student's creative flair to the levels of professionalism. As the departmental magazine, it provides an opportunity for student and staff to reflect their ideas and research into knowledge and motivation for their readers.*

*In this 8th Edition of NIMBUS, we highlight the theme "Importance of Technology on Human Life". We have focused on the topics ranging from Finance to Health. We hope that the readers will be able to absorb all that we wish to convey while we've compiled this issue, considering the hard work and efforts put in by the stakeholders of the department.*

*Lastly, we would like to congratulate and thank the committee and the students, faculty, industry experts for their exemplary contribution, their valuable time and effort.*

**Dr. Sheetal Rathi**  
**HOD CMPN**

# Faculty Incharge's Message

---



**Mrs. Vidyadhari Singh**



**Mrs. Ruta Pathak**

*Technology has become an integral part of our daily life and our needs and demands for it is rising exponentially. It has become one of the primary driving factors in all of society's progress. The society has a cyclical co-dependence on technology. Humans use technology to travel, to communicate, to learn, to do business and to live in comfort. Technology has made our lives easy. It is unimaginable to explore how each new advanced technology has impacted our lives and how it will impact the future. Technology also has impacted the environment, people and the society as a whole. Technology has improved Communication, Transportation, Education & Learning process, Health-Care and many other infrastructure business areas.*

*As Engineering is the practice of developing Technology, it is seen as the primary cause of Technological changes in society. This profession as a whole to incorporate the impact of the technology as a core value is more critical than ever as the rate of technological change accelerates and Engineers must balance the development of Technology with the Cultural, Ethical and Social aspects. We present to you the 8th Edition of NIMBUS, showcasing the influence of Technology on human lives. We would like to thank the faculty members, students, Industry experts who have contributed their valuable thoughts and views and making this Magazine turn into a reality. We truly appreciate the Team-Work of the Editorial who have toiled in the construction of this Magazine and the Creative Team who have worked hard to create and design to give it beautiful sight. We wish Good Luck to all of our Readers and wish all of them achieve great success in their life.*

**Mrs. Vidyadhari Singh**  
**Faculty In-charge**

**Mrs. Ruta Pathak**  
**Faculty In-charge**





# FROM THE EDITOR'S DESK



*At the very beginning we would like to extend our earnest gratitude to our Principal Dr. B K Mishra, our Dean-Academics Dr. R R Sedamkar, our Vice-Principal Dr. Deven Shah and our Head of Department Dr. Sheetal Rathi for their inspiration and ceaseless motivation towards the working of this issue of Nimbus.*

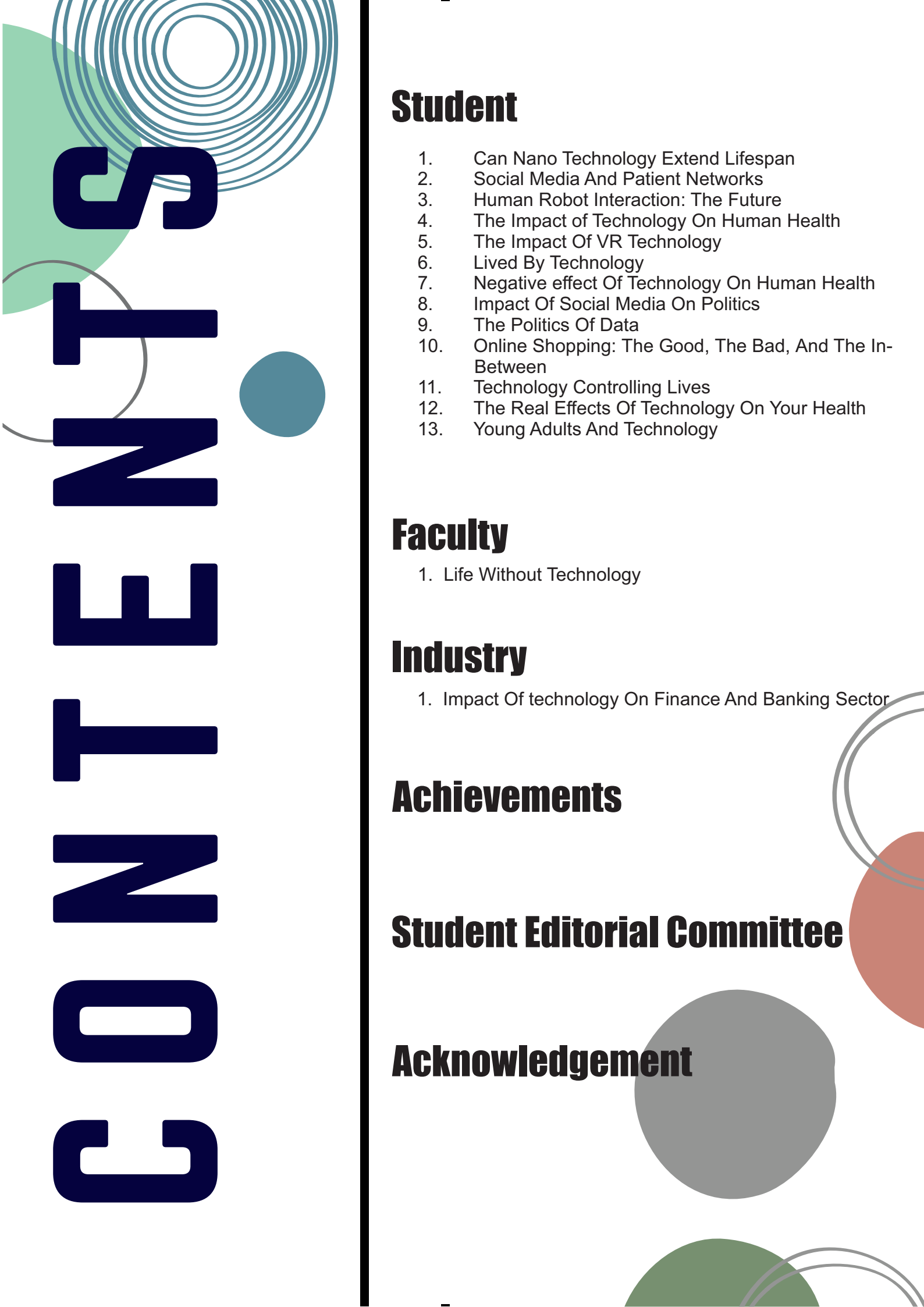
*In this pursuit of knowledge, we have covered many aspects of the field of computer sciences which have proven to be helpful to our readers to understand new concepts and think in a new direction with positive intent altogether.*

*This edition is aimed at apprising engineers about the Impact of Technology on Human Life and thus understanding other's perspective of booming technology. Impacts of technology on various fields like health and medicine, finance and banking sector, politics and many more are being addressed in this edition.*

*On a closing note I would give special thanks to our faculty in-charges of this issue Mrs. Vidyadhari Singh, Mrs. Ruta Pathak for their support and motivation and our team of editors and designers for their motivated and eager attitude to their work and in making sure, that Nimbus maintains its standard it has set through the previous issues, by bringing in phenomenal content. Without them, this issue would have remained what we dreamt it to be.*

**Ms. Athashree Vartak**  
**Chief Editor**

**Mr. Adit Rathi**  
**Head Designer**



# CONTENTS

## **Student**

1. Can Nano Technology Extend Lifespan
2. Social Media And Patient Networks
3. Human Robot Interaction: The Future
4. The Impact of Technology On Human Health
5. The Impact Of VR Technology
6. Lived By Technology
7. Negative effect Of Technology On Human Health
8. Impact Of Social Media On Politics
9. The Politics Of Data
10. Online Shopping: The Good, The Bad, And The In-Between
11. Technology Controlling Lives
12. The Real Effects Of Technology On Your Health
13. Young Adults And Technology

## **Faculty**

1. Life Without Technology

## **Industry**

1. Impact Of technology On Finance And Banking Sector

## **Achievements**

## **Student Editorial Committee**

## **Acknowledgement**



# Student Articles



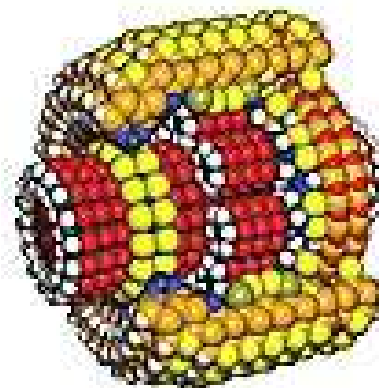
# Can Nano Technology extend lifespan?

To really answer this question we first understand what nanotechnology is? Nanotechnology is engineering at a molecular level. The "Nano" denotes the ninth negative power of 10 which is equivalent to 1 billionth of meter or width of (almost) five carbon atoms nestled side by side, hence nanotechnology refers to the scale at which these constructions work. If we were to compare the functioning of a cell to a large city to make the point and if a cell were the size of a city such as London, then a nanometer, the scale on which nanotechnologies operate, would be about the size of a car. Nanotechnology could be used to manipulate these cars, or make totally new types of car, with new functions. "Imagine a city where nobody collects the rubbish, well we could invent a rubbish truck. It is that complex."

How in medicine?

The ultimate tool for nanotechnology in medicine is nanobots. A red cell is about seven microns wide. A blood-borne medical nanorobot will typically be no larger than two to three microns in its largest dimension. The parts that make up a nanorobot will be much smaller still, typically one to ten nanometers in size. In repairing defective portions of individual cells.

For instance, the planetary gear shown in figure below is a proposed simple mechanism that converts one kind of rotary motion into another. It is about four nanometers wide and would comprise about 4,000 atoms arranged in an atomically precise structure. Designed and manufactured as per the type and stage of disease, nanobots can be interpreted as artificial white blood cells. Instead of creating antibodies which takes a lot of time to kill the pathogen these bots will simply trap or capture them and exit the host with excreta. It can eliminate bacterial infections in a patient within minutes, instead of using treatment with antibiotics over a period of weeks. The ability to perform surgery at the cellular level, removing individual diseased cells.



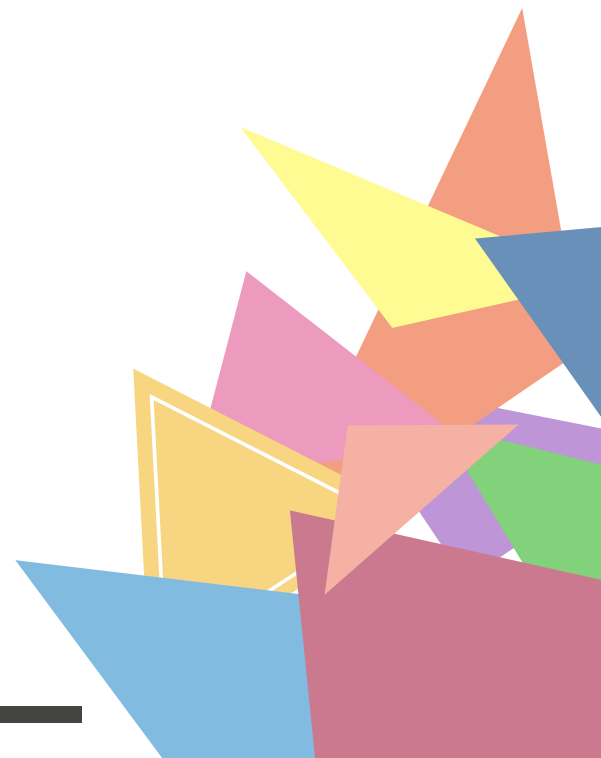
Now, we can visualize the impact it can have on humans, but there is no dead end. Nanoshells another nanomedicine which holds the promise to eradicate cancer cells to their fullest. Nanoshells could be used to deliver various drugs to a targeted specific area. The nanoshells are placed in the bloodstream of the host near the cancerous tumor, and because of the leaky characteristics of a tumor's blood vessels, the nanoparticles leaks through the vessels in the tumor and frame it. Following with the exposure from a near-infrared laser generates heat that bursts the cancer cells' walls. Since the light is harmless, the heating is localized. It affects only cells adjacent to the nanoshells and destroys cancerous cells without harming healthy surrounding tissue. After following the given procedure the nanoshells eventually are eliminated safely from the body.

Nanospectra has completed and is in the process of doing clinical trials for head and neck cancer, lung cancer, and prostate cancer. Human testing experiments began in year 2008 and has been conducted in a number of hospitals and Universities.

Nanorobots can even stop aging. Aging is a physical disorder where body slowly discontinues replication or stops altogether. As human starts to age the body or the organ loses some functionalities, even the replicas formed by mitosis loses some information (DNA). After many copying process the body loses a lot of information. That is the reason when a person ages, they look very like the skin becomes elastic, gray hair, wrinkle appears and common bone weaknesses. But nanorobot provide us with a solution where it replaces the damaged chromosomes from the host and replace it with the healthy ones which will be artificially made. Changing DNA can result in changing the way the person appears. Though it's theoretical still many hopes it to be factual and feasible.

The medical community is very sanguine about the odds for other medical applications of nanoparticles as well.

**Ashwin Yadav**  
**TE-B/56**



# Social Media And Patient Networks

Some medical institutions are using social media to improve collaboration and communication, both among patients and doctors as well as between patients themselves because in today's world the contribution of social media can't be ignored, the best example of this is promotion of free health camps, blood donation camps, awareness programs about organ and skin donation.

Technology is moving forward so fast that the developing countries may not be able to move up with that pace.

## Technology's Effect on Our Health: Good or bad?

### Are Screens Impacting Our Eyesight?

This is one of the most common concerns related with the evolution of technology: Do digital devices really cause strain in the eyes? The answer is yes. Many individuals suffer from physical problems related to eyes after screen time for more than a couple of hours. Have you ever checked your phone in the middle of the night, only to be partially blinded by the brightness? Our eyes did not develop to read tiny text on tiny screens with bright lights.

It's not only our eyes that may be affected, however. Some worry that digital eye strain may also affect your shoulders and neck and also the optic nerves depending on your posture as you use different gadgets. If you find yourself with health-related problems like head and neck aches, lack of sleep you might want to consider adjusting your posture or reducing your screen time by a bit., the best alternative to it can be trying to read a book, going

## Are There Any Positive effects of Technology On Our Health?

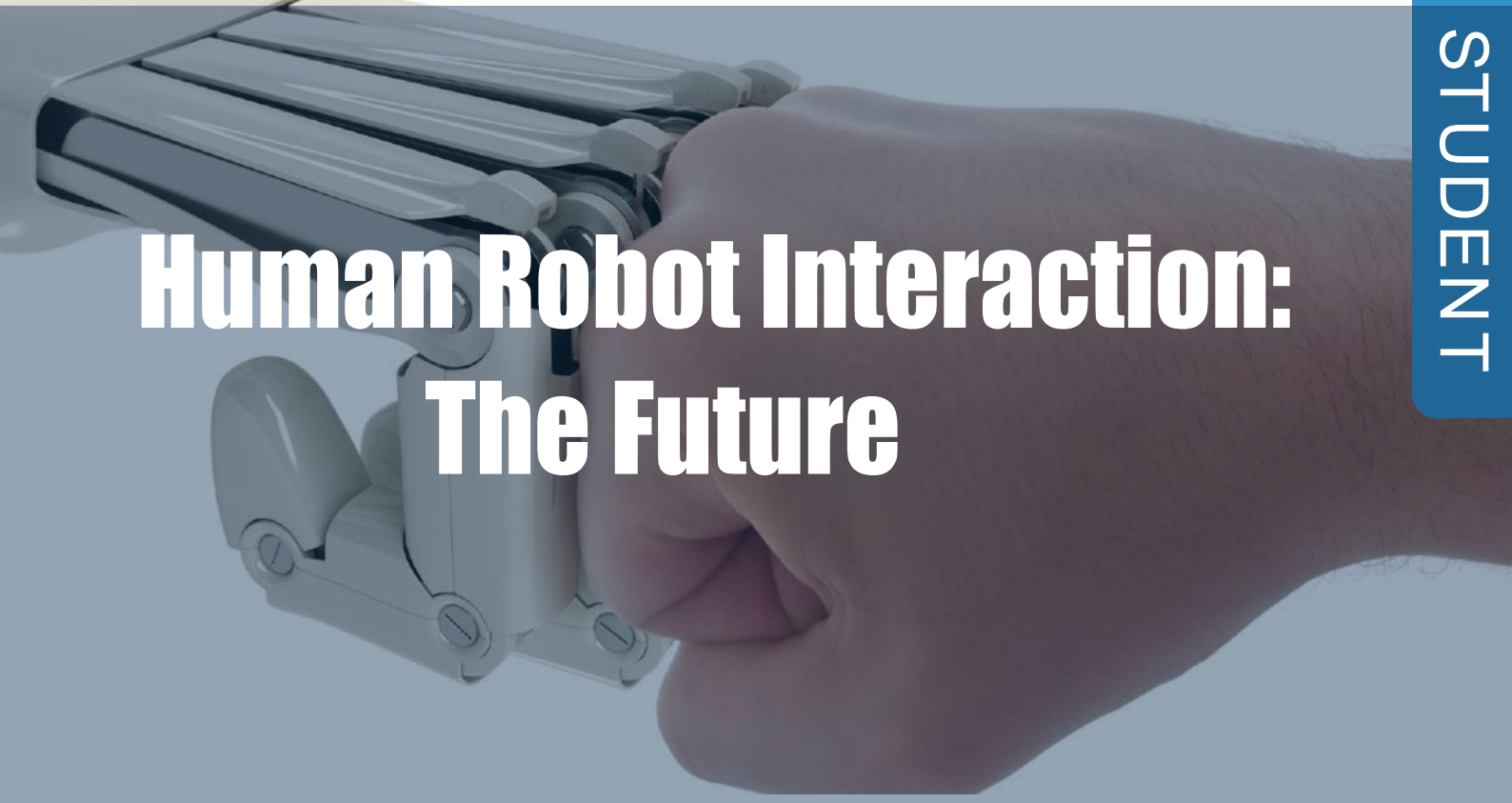
Counting our steps with the help of gadgets has become trendy. While physical health is likely still not as important to as many of us as it should be, smart tech has made workout a lot more fun for some. Popularly called as fitness bands or smart watches, to mention a few Apple Watch, Fasttrack reflex, Fitbit other devices include blood pressure checking device.

Here are some ways that technology has positively impacted our health:

A mobile app called Achievement(for US natives)is designed to interconnect to other fitness and health related apps you might have on your device. You earn points for every bit of activity you do. Once your reach 10,000 points you earn \$10! (Approx 750 INR)Most of us would be motivated to do something physically challenging if the reward in return was fiscal.

Another application named is Charity Miles. With this app, any time you cycle, run or walk money will be donated to charity of your choice. This technology productively affects not only our desire for significant causes but also our health.

**Written by:**  
**Rutik Ambre**  
**SE CMPNA07**



# Human Robot Interaction: The Future

**W**ill robots change our lives in the future? It's a question that appears to be ridiculous at first since we have been surrounded by various models which make our day to day life easier, ranging from cooking food or playing music to running our very own car. We simply do not notice them in light of the fact that these "robots" do not have a face to converse with or interact with, in a human related manner.

Technically robots are mechanized tools that are designed to execute tasks with more precision and speed which humans are unable to do. Robots that resemble humans are called as androids, they are capable of moving and performing tasks in a similar way as humans do, and one of the prime example is the Google-owned Boston Dynamics' Atlas robot. The Atlas robot uses 3D printing to spare weight and space, bringing about a remarkable robot with high quality to-weight proportion. Boston Dynamics has turned Atlas into a marvel that may do backflips, way outpacing the counterparts that have a tough time even walking.

Today, in the era of present technology, robotics has become a big part of our collective lives. Robots are utilized for their knowledge, exactness and interminable vitality, to perform assignments consistently and profitably, that when performed by people tends to create flaws. In a controlled situation like a mechanical production system, robots work just fine. If a robot realizes that each time it needs to go after a particular part, it'll be in a similar place and orientation each time.

AI robots have already started an enormous job in improving waste administration and finding distinctive approaches to handle the waste issue endured by most developing nations like India.

It incorporates complex systems of conveyor belts carrying rubbish, utilizing refined sensors to sort plastic from aluminium and paper. While this innovation may modernize waste sorting, it is right now not agile and sufficiently accurate enough to complete the activity.

Robotics is something which is a tremendous field of research all by itself, robots are changing the world in their own specific manner, by changing the way in which we can conduct research. The military is the greatest field to utilize robots in this capacity, as robots can be utilized under conditions which will be hazardous for people.

Another very important field that robotics contributes to, is security. Security is right now dealt with by either a home security framework, or by human security guards. The presence of robots can make conceivable changes to either of these cases. A robot is made out of materials which are by and large more sturdy than people are, and they can be intended to be more strong and quicker than people as well. Any security taken care of by robots can possibly be more secure than if it were dealt with by people alone.

Established in 2014, San Jose start-up "Aptomony" has taken in \$620,000 in financing to build up a robot that flies over your business or property while checking for any trespassers. It likewise provides you with a video feed and facial recognition. With infra-red, chemical and anti-drone sensors, you can be updated of what is going on inside your property. Seeing the capability of robots in this field, more and more start-ups are willing to invest in money in order to provide for a system that is self-reliant, requires no health insurance and can work twenty-four hours a day without getting tired or without losing attention towards guarding the area.

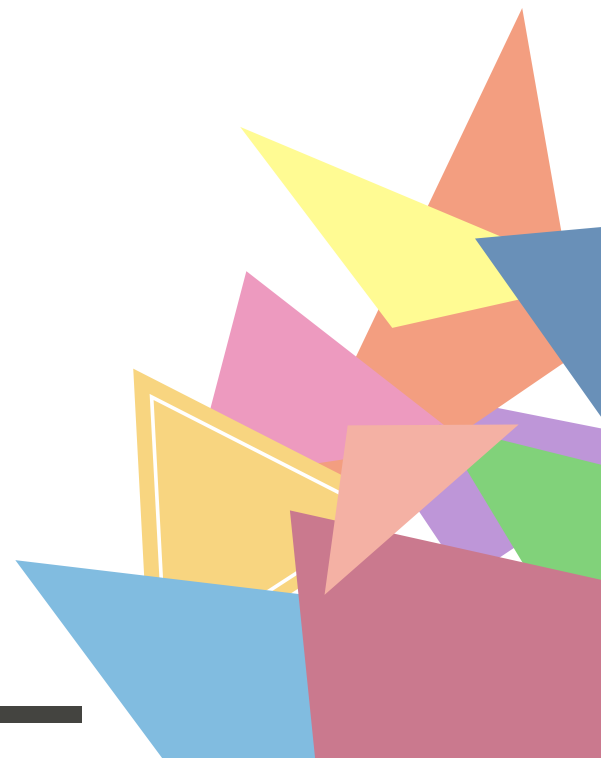
The impact of robotics on medicine is undeniable. Their use in medical field is slowly increasing as technology progresses. Researchers are experimenting on using robots that are just millimeters in size to perform heart surgery. Engineers at Autodesk are working with medical researchers to enable them to create nanosized robots that could be infused into disease patients to specifically execute growth cells. A surgical robot called the "CyberKnife", uses "accurately targeted megavoltage X-radiation" to fight cancer. In other words, the CyberKnife sends very focused pulses of radiation to destroy tumor cells inside the body without really cutting or harming the tissue. In fact, the process is easy and painless and is conducted without anaesthetics.

Self-driving cars is one of emerging technologies in today's world. Car companies like Tesla and Google are striving towards making self-driving cars safer and more reliable. Most of the cars that we are using already have robotic parts built into them but creating robotic cars that drive on their own by minding their surroundings, is an exceptional feat in itself. These cars are equipped with dozens of sensors and would be able to determine speed limits, traffic lights and signs. As per Google, we are just around three to five years from a self-driving car that is roadworthy.

The robot age has arrived. The possibility of robots may bring to most minds the possibility of androids like T-800 in the movie "Terminator". The vast majority of us are not able to understand that a lot of robots exist in the most basic forms today; they are not so much android but rather more like industrial tools or equipment.

With the use of wireless internet connections and the ability to grow real-time intelligence, robots are the future. While it requires society a touch of investment to adjust, it appears to respond to innovative progressions well. This implies the world would be prepared for more smart intelligence to be utilized in day-to-day applications.

**- By Sarandeep Singh  
SE CMPN-B**





# The Impact of Technology on Human Health

**T**echnology has crept into every corner of our lives, from obsessive texting to checking emails more often than a stockbroker eyeballs the Dow.

Sure, you're on top of #MeToo latest victims, but smart phones, tablet computers and gadgets "have an impact on your body, even if you're dealing with irrelevant information," says Adam Gazzaley, M.D., Ph.D., associate professor of neurology, physiology and psychiatry at the University of California, San Francisco.

Most of us absorb three times more information every day compared with 50 years ago, according to University of California researchers. We spend 12 hours in front of TV and computers – and that's just at home.

So is all this techno-toiling bad for us? That depends on the devices you use and how often, medical experts say.

You drive while talking on the cell phone, text while listening in on a conference call, surf your iPad while watching TV. Multitasking is the new normal, and though it feels like we're more efficient, studies show it has the opposite effect.

"Your performance level drops if you stop one activity to pick up another," says Gazzaley, who conducts ongoing studies on the effects of media on our brains

Multitasking participants had more difficulty filtering out irrelevant information than those focusing on one task at a time. Multitaskers also took longer to switch tasks, juggle problems and wasted time searching for new information when information they had was better and more reliable.

Most adults don't need 450 Facebook friends to feel validated. Teens, however, are emotionally more vulnerable to the effects of rampant texting and online sharing.

Wear and tear on ears is normal, resulting in some hearing loss in seniors. But what you do early in life sets the stage for how well you'll hear as you age, Fligor says.

If you use poorly fitted ear buds, attend loud concerts frequently or shoot guns for target practice, hearing loss can arrive even in your 20s. Teens, in particular, crank up their iPhones loudly to drown out traffic noise, conversation and even other ambient music. About half of college students in urban settings risk hearing loss.

On average, we send and receive text messages 3,339 times a month, according to a 2010 Nielsen Company survey.

In Britain, about 3.8 million thumb-typers complained of pain from similar activities. Nearly 38% said they suffered from sore wrists and thumbs, the result of repetitive movements, according to a 2006 survey by Virgin Mobile, a British cell-phone company.

"That's an urban legend," says Peter W. Johnson, Ph.D., associate professor of environmental and occupational health sciences at the University of Washington.

Typing on a computer is like "bingeing and gorging, while texting is like snacking," he says. "It's intermittent, so you don't have the same cumulative effect as working at a computer for 4-6 hours.

The longer you sit either in front of a computer or TV, the greater likelihood you'll die earlier – even if you lift weights, jog or swim for 30 minutes a day, according to an ongoing study by physiologist Marc Hamilton, Ph.D., a professor at Pennington Biomedical Research Center in Baton Rouge, La.

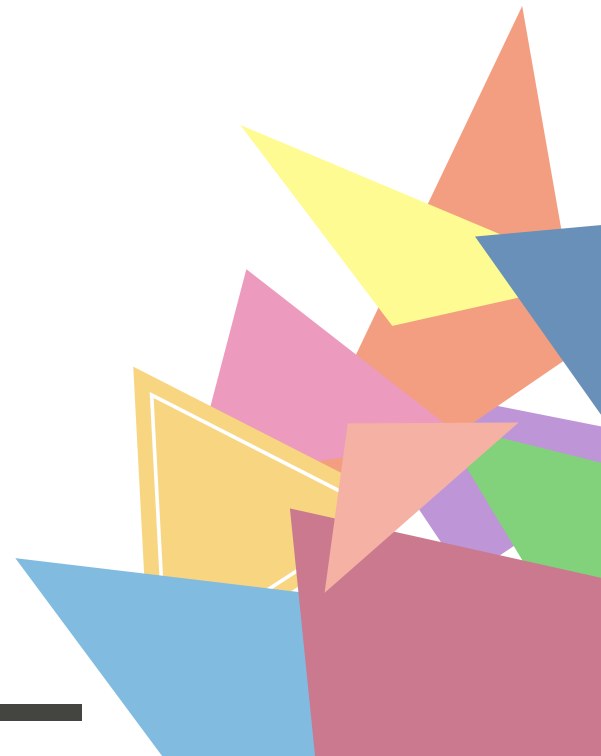
A 2015 study confirms this

.Women who remained glued to their chairs more than six hours a day were 37% more likely to die during the time period studied than those who sat fewer than three hours per day, according to an American Cancer Society study that followed 123,000 adults for 14 years.

It didn't matter if they were fat, thin or worked out daily, according to the study published in 2010 in American Journal of Epidemiology.

So it's better to get out in the open once in a while, dumping all your restrictions inside the house, and just experiencing the cool breeze flowing past your face while you enjoy a conversation with your loved one.

**-Mitesh Deodhar  
SE CMPNA**



# The Impact of VR Technology

## 1. What Is VR Technology?

VR Technology is a computerized simulation environment that allows a human to experience a thing that is not taking place in front of them but is virtually happening in front of their eyes making their minds to feel, sense, and get immersed into the virtual reality at any place, anytime and anywhere.

## 2. What are the Key features of Virtual Reality?

Virtual Reality is an artificial environment that automatically pulls our mind, due to our senses to get involved in it. Virtual Reality has the following key features:

### ● Virtual World

It is a three-dimensional virtual environment that is often experienced through a medium, where a person can interact and create objects as a part of their interaction. In this interaction, the vision of the person helps to be responsive towards the movement.

### ● Immersion

Virtual Reality Immersion is the perception by which we become physically present in a non-physical world. Our mind is immersed in the artificial world.

This is accomplished with the sense of presence, where the brain believes that it is at somewhere it is really not. The state of total immersion is achieved when enough senses are active to create the perception of being present in a virtual world.

### ● Sensory Feedback

It is a key aspect to experience a virtual reality. This requires simulation of as many senses as possible. This sense includes visual (eyes), aural (ears), haptic (touch) and more.

### ● Interactivity

This feature is a crucial aspect for virtual experience since it provides the user the comfort which will engage the user with the non-physical world. In simple words, interactivity can be explained as, If the virtual world responds to the user's action in a natural way than the sense of immersion satisfies our brain and it will be exciting. But if it does not respond quickly and delays than this can get quickly noticed by our brain and it vanishes the excitement and the sense of immersion.

## 3. How Virtual Reality works?

In order to make the human brain feel the virtual environment, we must provide some instruments to not only make it look real, but also feel real. This feeling of reality can be achieved through the use of these components as mentioned.

Firstly there should be a source to view Virtual Reality to the user. This can be achieved with help of Personal Computer if viewing for an indoor purpose, Console for a real-life experience and Smartphone for experiencing at outdoors. They act as a powerful engine to the content being produced.

Secondly, there must be an interface between the Human brain and the Virtual World which is achieved by Head-Mounted Display. These are devices which make our mind to feel and sense the virtual reality. And finally, the reflex which is required when an action is done. This can be done with any of the input devices like Joysticks, Tracking Balls, Data Gloves, Track pads, Motion Platforms.

#### 4. Impact of VR on Human life!

Whenever life meets technology a new kind of life is created and that can be called as TECHNOLIFE. In Techno life, life becomes easier and extraordinary to live in. There is an advancement of the pace in everything that a person works with. Here is some example which has led to the beginning of Techno life in every person's life.

- VR in Medical Field

VR is helping out Doctors and the patients to fight against the situation that is tough for the patients to be in and for the doctors to handle it. VR is making the amputees feel not as an amputee. It helps them to get rid of phantom pains.

In Sweden, in the Chalmers University of Technology, the experiment was conducted. Patient with an amputee's hand was provided with a VR SIMULATOR. Because of this simulator, he was able to see himself driving a car in the Virtual Reality. The motion sensors were put up to his limb. His brain got the visual confirmation that his amputee's hand was moving and reacting on movement. The intensity and frequency of pain have decreased after the experiment.

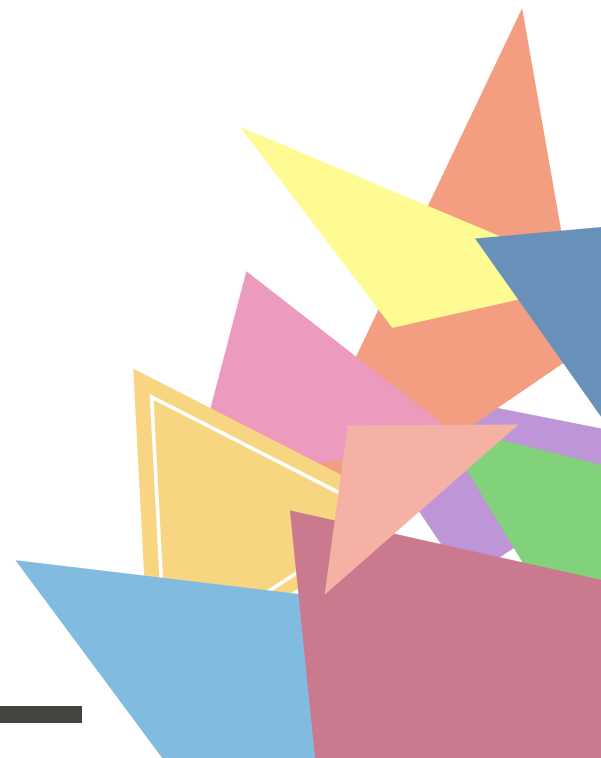
The most effective way of utilizing VR is found in psychotherapy also known as VR THERAPY. It helps, particularly to struggle with different forms of phobias like fear of heights, spiders, darkness, etc. Under supervision, it was found that the patients get immersed in a comfortable space of their virtual reality, where they face their psychological problems.



The professors at Stanford University are also going to use VR for giving training to their students. VR simulator will help the students to study the anatomy of the human body. In general, VR has saved lives and help the doctors to change their discipline of medicine—from surgery to rehabilitation.

- VR in Educational Field

VR is affecting the level of the expedition at schools with children getting a field trip through the VR EXPEDITION. This Techno life of the student is being powered by Google Expedition App. This app is taken by schools to make the students experience the field trip by just sitting in the classrooms. This decreases the time and is not that costly than the real expedition would cost. This is the impact of VR on Education.





- VR in Gaming field

Based on the features of VR Technology, it is obvious that this should be used in the gaming industry too! This kind of thing is showing up in a Bollywood movie named RA.ONE, where the child uses a VR display to play the game.

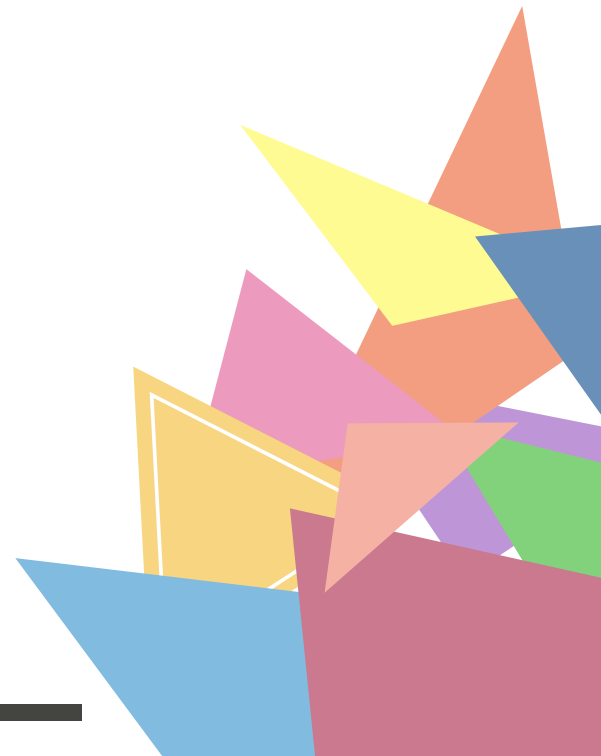
Similarly, there is a gaming console top which you can use to play like the way you want. You jump around the surrounding, run, fight, drive a car and race on tracks. Gaming is the cornerstone upon which the VR technology is built.

These were the impacts of VR Technology on Human Life. Adoption of this technology is growing rapidly and the thinkers in the industry started believing that VR Technology has come to stay. With considering these impacts of VR Technology, it has proved that life can be converted into a TECHNOLIFE.

- VR in Skill Training

VR training is absolutely the most immersive learning technology. The innovativeness of training is increasing through VR SIMULATION. The virtual environment can be useful for the training of both hard and soft skills. A virtual environment is created for the learners to interact with. This can be used in any fields like Business, Mechanical, Civil works, Architectural works, etc. For Business or E-commerce training it has a menu built for the teaching of presentations, meetings. In Architecture and Civil fields, it is easier for the learner to learn in 3D manner along with collaboration with colleagues. Due to low latency, high frame work and easy navigation in VR, this technology is best suited for Mechanical and Architectural fields as they require precision in drawings and layouts.

**By,**  
**Swati Dubey, SE CMPN A**  
**Kaustubh Shete, SE CMPN B**  
**Shivam Sharma, SE CMPN B**  
**Rakshit Shetty, SE CMPN B**





# Lived By Technology

In the days of the old, men lived their lives to the fullest. Bound only to nature and duty, without any distractions, our ancestors truly lived the simple life. But, now that fact is just a distant echo lost somewhere in a dusty library. In this age of electronic circuits, we have lost that simplicity. Drowned in work and full of distractions, our lives are lived by technology.

Technology is what humans were seeking for from the beginning. From the first light bulb sputtering and glowing to life to a series of 0s and 1s making calls and being able to talk to human beings, we have come a long way. The very purpose of technology, from its birth, was to assist human beings and make their lives better. Everyday our lives get simpler to live as technology relieves us of some of our day to day activities. What happens when there are no more activities left for humans to create technology for?

Let's take a look at the latest sensation, The Home Assistant. By now, the Amazon and Google Home Assistants might have been heard in every household, and might have even entered in most of these houses. These are nothing but Artificial Intelligence, an attempt of humans to install a sense of self-thinking into machines. They can do a wide range of actions, from supervising your devices to even being able to strike a conversation with you. They can get your switches for you, play your favorite music and can soon make your calls for you. Alexa and Google are already changing your life at home.

Another marvel of technology is the social media. Almost every human being has a social media account now, whether it be Twitter, Facebook, WhatsApp or Instagram. There is a whole galore of sites now. As of the 2nd quarter of 2018, Facebook reported to have 2.23 billion active users. These social media accounts have actually become an extension of ourselves, a virtual organ within our bodies that has a direct impact on our minds. When these ideas were given birth, they were done so to

create connectivity amongst human beings from all over the world. What social media has done is that it has created a virtual extension of a human being in the digital world. This extension has actually made humans, especially teens, vulnerable. They consider their performance and achievements on social media as the performance and achievements of themselves in reality. This has left people very emotionally vulnerable. The death cases because of social media has now become a common concern. Estimated by the WHO, there will be approximately 1.53 million deaths caused by social media. An invention used to connect people is now making them self-doubt themselves and judge themselves only on social media terms. People actually live their lives now with an aim to make their digital self look better than their reality.

People now talk of a technology where a human being could be made immortal. It involves the concept of creating an artificial intelligence that would be a digital copy of our brain. We could imprint our brain and our thoughts on this machine and have it think like us. In a sense, our thinking process would be immortal. The idea of immortality is tempting, but the consequences of such a technology is something that I cannot even fathom. Living life itself will have a completely new definition, an unnatural definition.

From the continuity of the advance of technology, further activities will be left over to technology to perform. This brings into mind the concept of the movie, 'I, Robot'. Not that I am feeding more controversy into the 'AI gonna capture the world' idea, it is the theme I find intriguing. Robots take over so many jobs that humans become overly dependent on it. From the Home Assistant and Artificial Intelligence, where does the future lead us? Does humanity soon give up on all jobs to robots and cease to exist as a living entity? Do we stop living and dissolve into a digital world? In that case, we will become mere instruments to the tool we created. We will have lives, but they will be lived by technology.

**Paarth Singh Dahima**  
SE CMPNA

# Negative Effect Of Technology On Human Health

**T**he difference between technology and slavery is that slaves are fully aware that they are not free"- Nassim Nicholas Taleb

Technology impacts the earth as a whole, be it environment or society. Nothing escapes its grasp. In the recent times, debates have been conducted over the misuse and negative impacts of technology but only over teenagers. The fact that its roots are deeper and it impacts everyone equally is ignored. Since its birth, technology has been both, useful and harmful. Now the tables are turning due to the increase in its negative impact.

Technology causes Physiological, Psychological and Social issues. The Psychological disorders include narcissism, ADHD, addiction, depression, expectation of instant gratification and obsession while the Physiological disorders include vision problems, headache, neck strain and hearing loss. On the other hand, the Social issues are lack of skill development. While the Physiological issues are mostly temporary and non fatal, the Psychological issues result in severe consequences. Staring a screen for a long time can result in 'Computer Vision Syndrome' which includes eye strain, blurred vision and dry eyes. Sitting in a particular posture which puts a strain on the spine can cause neck sprain, back ache and in extreme cases Scoliosis.

Psychological issues arise from the fact of e-competition which forces individuals to try to be better than everyone else on the internet. The compulsive need to be 'in the game' or 'in trend' gives rise to a miserable life. Everyone on the

gives rise to a miserable life. Everyone on the internet wants to be better than everyone else. This need of being superior gives rise to narcissism or the inflated sense of self importance. The word sounds very cool and every other teenager on the internet takes pride in calling itself a narcissist. This disorder is termed as NPD that is Narcissistic Personality Disorder. This happens when people seek validation on the internet and when they don't get any, they try to fill the void by praising themselves beyond limit giving rise to superiority complex.

The constant need for attention not only causes ADHD but also depression when one doesn't get enough. ADHD causes people to become impulsive and causes distraction from their actual life situations or problems. Most of the people are under e-stress more, rather than their real life stress which burdens them further. This e-stress causes emotional trauma, lack of trust and self doubt. This hampers the relationships in today's time. This e-stress causes individuals to take wrong decisions and to end up in an even more difficult situation. The impulsiveness generates wrong reaction to a particular action. The reason these disorders arise is because of the barrier of distance that's been broken and the lack of privacy for individuals.

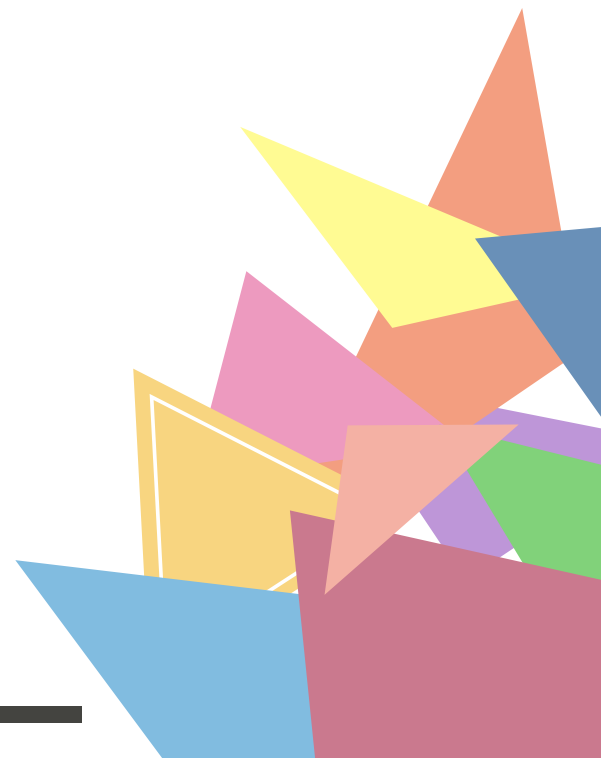
The fact that these disorders have been normalized creates a lack of awareness and attention towards it. These disorders if untreated can increase the severity of it and can prove dangerous after a certain limit. The greatest example of such situations is depression. Depression is not a single disorder. It is a collection of multiple disorders which remain untreated on the right time. The increase in depression in most people is relationship problems. The constant need to check up on people has made individuals detectives who keep a track on the activities of their peers. This causes a sense of distrust and doubt. This in turn gives rise to Anxiety which worsens the situation even more.

The Social issues on the other hand are rarely addressed. The lack of physical communication gives rise to a lack of personality growth in individuals. Too little human interaction can cause a lower self esteem which in turn causes stage fear and social anxiety. Not socializing enough can lead to professional problems. The most important social issue is cyber bullying. The teenagers are most vulnerable to it and it happens almost anywhere and everywhere. The use of inappropriate language over social media platforms could hurt sentiments and cause defamation. The victims can be total strangers to anyone close. Another important issue is terrorism and crime. Crime like cyber theft is spreading easily and even though there's so much of awareness about it, people still fall for it easily. Terrorism on the other hand is brainwashing and hates speech. People have become so intolerant on social media that hate speech has become so common. When someone doesn't agree with someone else's views they use hate speech as combat. Social media is making us intolerant due to the very fact that it boosts our ego and we become furious when we are acknowledged about our wrongs.

The reason these issues exist is because technology controls us instead of we controlling the technology. Day by day the technology is evolving while humans on the other hand are walking back on a path of doom. The overuse of technology has left the libraries empty. It has gained an indirect control on our minds and it is programming us to become puppets which work according to it. It is necessary for us to question everyday, who is controlling whom? Everyday humans are drifting away from each other and the day is near when we will turn against each other. The use of technology should be kept in check by every individual because anything beyond limit becomes disastrous.

"Technology is a useful servant but a dangerous master"- Christian Lous Lange.

**- By Avinash Pandey  
SE-CMPN-B**





# Impact Of Social Media On Politics

The media plays a significant role during a democracy; informing the general public regarding political problems and acting as a watchdog against abuses of power. throughout election campaigns the media provides info and analysis regarding the political parties' programmes, policies, candidates and performance. transmission appears to form politicians appear a lot of remote; there's still no association between politics wherever power is brokered, and also the network society itself. during a similar means, social media has additionally remodeled politics in Asian country and globally. Its result has wedged the means candidate campaign for his or her election. Social media permits politicians and political parties a technique to attach directly with folks across the country at a reduced price and larger reach than ancient media. Social media isn't merely succeeding during a line of communications technologies: it's additionally modified everyday activities and connected folks during a manner ne'er before attainable. The paper aims to look at the extent use of social media by the political parties to market their image and political messages, among their supporters and peoples in social media.

The paper intends to look at however folks consume the political problems or political discussion on social media. it had been studied on the idea of the responses received from a sample of a hundred respondents in Hyderabad state region. Results reveal attention-grabbing info on the kinds of social media used the ratings of the foremost used social media and their impact on society.

Social media was a well-liked word in Indian parliament election 2014. Political parties use social media as a result of ancient mass media communication medium square measure extremely regulated bye election commission of Asian country. For over a decade politicians have taken the net in an effort to higher reach voters in our new media society. initially it had been the employment of static webpage to market campaign goals, guarantees and knowledge. However, as social media or the social networking sites (SNS) began to rise in quality within the mid-2000, campaigns began in earnest trying to harness their power to achieve a lot of voters.

For instance, the 2008 U.S. presidential election was the benchmark as the first election to fully grasp the power and reach of the SNS's to impact voters. The U.S. President, Barack Obama's campaign used Facebook in an exceptional ways to reach out the young voters. It worked, allowing him to win the votes nearly 70 percent of voters that were under 25 years old.

Social media is also facilitating a new way by which people are able to search and share information and increasing their awareness. It plays a vital role in converting street movements into large cities of Romania in 2012. In the same passion during anti-corruption movement 2012, social activist, Anna Hazare used social media to connect people in New Delhi.

This has caused lot of adverse effects on health. The very first is eye strains, continuously looking at screens has led to lot of eye problems. The major issue that has been much talked about is Stress. That doesn't feel shocking because Yes , people are very much important to us. It works both the ways. Suppose for an instant, one of your friend is calling you repeatedly and due to some reason you are not able to receive the call. This develops a tension in mind of both the people. The stress work both the ways. So much of social connect with people results into losing yourself.

In the above paragraphs we talked about how much time we give to our parents. Now the most important question is: How much time do you give to yourself? You are so worried about others and their lives but what about your life. Did you ever sit back and talked to yourself. We are so into others that we forget ourselves. That is where the psychology issues come into picture. This is where the limit has to be mandatorily set. Everyone is not worth of our time and our ideas. Everyone is not worth our care and love. One must prioritize people in their lives. That is where you will also understand you Politicians use social media to communicate with their audience and to call them either to protest, or to vote. So, the use of Web 2.0 technologies has made it incredibly easy for a wide range political parties, social activist, individual leaders are getting attention towards social media.

In addition to the impact that social media has for campaigns in the traditional sense of expanding the reach of their message to more voters and often younger voters. Social media activities can be either used to predict the outcome of elections. However, many companies have attempted to use the data which is available from the social media sites such as Facebook, Twitter, Google Plus and other platforms to predict election outcomes. It is assumed that people visits these social media platforms with their ideas and thoughts regarding their political leaders during the election periods. While through careful content and structural network analysis these platforms will provide similar results to traditional election polling.

Hence, social media has emerged as an essential tool of communication and has created new ways of political mobilizing and encourage social media users in political activities ranging from joining their political groups by tweeting, status update, expressing supports through blogs and videos on Youtube.

## **Social media and its uses in India**

Social media is playing a considerable new role in Indian democracy. With the changing politics of India political parties and politicians have found a new ways of reaching out to a younger and aspiration population.

The use of social media by Indians was first highlighted during the 2008 Mumbai attacks when information shared through Twitter and Flickr between Indians and the outside. "The second mass use of social media in India was the May 2009 national elections, when, for the first time, online voter registration and transparency campaigns started" where first time political parties tried to reach out to voters through social networking websites.

Social media has also credited with helping the new Aam Aadmi Party and its candidate, Arvind Kejriwal, won a surprise victory in Delhi against major political parties. But social media can also be subject to significant abuse. Some politicians have been accused of boosting their apparent popularity on social media with legions of followers who don't exist and of using social media to smear their opponents. Worse, social media have been used to fan violence against religious and ethnic groups.

**Siddharth Tiwari**  
**TE-B**



# The Politics of Data

You are most probably reading this article on your smartphone or your desktop. We are citizens (or should I say Netizens) of the 21st century. This is the century predicted as the century of technology and is widely expected to further change our day to day lives. Recently we heard about the rumor of the internet going down for 72 hours. (Which was ultimately false) We saw some extreme reaction on social media regarding the same. Imagine the Internet actually going down. Sounds horrible, doesn't it? I haven't even mentioned other aspects of technology except the internet. Such is the dominance of technology in our lives.

We all are aware of the Facebook data breach. Even though the investigations are still underway, an estimate is that the data of around 30 million users (Figure latest to the time of writing) was stolen and misused, tells a big story. There are various aspects related to it. Let's focus on the one which turned out to be nightmare for many 'Powerful' people in the world. Yes, the political one. Right from the Indian Lok Sabha elections in 2014 to the latest US presidential elections, everything has come under the scanner. It was considered that the data breach "Largely influenced" the elections.

Let me explain this to you with an example. We all are on Facebook. The firm knows the details about us such like the nationality, age, sex, city etc. So during election time, by virtue of ads we will be mostly shown the posts praising a particular party while also spreading hatred towards the opposition. This is basically a well designed trap to catch and influence the voters and effectively turn the tide in someone's favor. This is the most basic way of how the audience are targeted and influenced. There are a whole lot of different things if we want to go deep into the topic. This is what we can consider as one of

We all like to follow meme pages on social media. Some of these pages are "Politically influenced" during the time of elections. This lead to further consequences, something which we already are aware of, so I won't talk much about that. How can someone ignore the superstar of social media-WhatsApp? We are all in some WhatsApp group(s) we don't want to be in. There are some extremists on the platforms who serves you hatred in the form of some memes or status(es) or via other means. My advice is to stay away from such people. Be firm on your decisions. Now let's get back to the topic "The politics".

Now, let's talk of the advantages of technology in politics. The technology has enabled the Government to increase its reach even to the remote areas. The citizens have actually become the watchdogs of politics. The politicians cannot simply manipulate people to win over the votes. They are answerable to the citizens who keep an eye on every activity of Government and opposition. The Government can now directly interact with the citizens and get a feedback on their policies. We just cannot ignore the influence the role of technology had in the 2014 elections. We all know many more advantages. I won't mention them as it will start looking like an essay.

In conclusion, I would like to say that, we should stay aware of all these stuff served to us using various platforms. While the role of technology on the politics can't be ignored, but we as a responsible citizens and future engineers in the field of technology should ensure that the technology is used in right manner. Try to not get influenced by Social media.

**Lokesh Agrawal**  
**SE CMPNA**

# Online Shopping: The Good, The Bad, And The In-Between

Everything looks misty for you when it comes to online shopping? You don't know yet if it's good, bad or something in-between of that? You are probably not the only one. And I can ensure you what you are now going to know everything you need to in order to understand it all. So put your seat belts on, and let's go into the trip of getting to know the good and bad of internet shopping right away!

## The Good

**Coupons.** From clothing to food, from toys to car parts, online you can purchase stuff as easily as offline and get it at the same quality or even better. But another great thing about online shopping is thousands of different coupons that are waiting for you. So, as mentioned before, if you are looking to shop for groceries online, you can find a bunch of coupons. If you are looking for clothing – you can easily find it too! Everything online is easy to find. And it is easy to use coupons to reduce the price! Even if you are searching for some cheap car parts, you can get some coupons and get it all less expensive!

**Time-consuming.** Another amazingly good thing about online shopping is how time-consuming it is. I mean, how less time it consumes, actually. You don't need to dress up, go stand in huge lines and wait for hours to shop. You can get your wished item within a few minutes! Or even faster if you are a real pro in this. It also means that you can shop at whatever part of the day you want. So if you feel more comfortable to shop at midnight – you can definitely do it without any problems. Thus saving time while shopping online is a definitely good thing.

## The Bad

**Scams.** As everywhere in life, by shopping online you are taking a risk of being a victim of criminals. Since online shopping becomes more and more commonplace for masses, the number of online scams is also increasing. This is why you

should always buy from trusted websites only. These trusted websites will generally make an effort to police what products are being sold so you have some degree of protection. So just be caution of where you are shopping and you will be fine.

**Losing touch.** Another bad thing about shopping online is that you are taking the risk and buying things without even the ability to touch it. And with some products it is very important to take a better look of what you are purchasing – groceries is a good example of this. Otherwise, you will be unsatisfied and might get in trouble while trying to return it. So remember that shopping online doesn't give you a chance to feel the item you wish for.

## The In-Between

**Salespeople.** If you can't stand people trying to make you buy stuff you don't want, then shopping online is great for you. You will not have to handle with it at all if you don't want to. But if you want some advice, you can contact with people who are responsible for customer care and talk as much as you want! Online salespeople are actually waiting for you to come, rather than trying to make a contact with you first.

**Enjoyment.** By shopping online, you might lose the enjoyment of dressing up and going out with your friends to shop. But on the other hand, you will be able to feel the rush then you see that delivery guy is coming with your package! So it is also a lot of in-between deciding whether or not shopping online is good. But the best way to solve this problem is not to choose absolutes – shop both online and off to get the best of it all together!

Yogesh Bharambhe  
TE-B



# Technology Controlling Lives

**T**echnology is a useful servant but a dangerous master. – Christian Louis Lange"

As the time passed we never realized that we were slowly getting trapped by something that have been in existence due to us. Everything built has its cons and pros. When it comes to technology we never looked upon its consequences because the perspective for the advancement of technology has always been for the betterment of the society. It turned out as a miracle and its advancement has no end. Technology has proved to be very beneficial to all of us because it reduces human labour and saves time.

Technology has turned out to be our saviour . Technology is constantly improving and doing more impressive things, and it has a huge impact in the field of education. With the help of technology, students can learn on a global scale without leaving their classrooms or homes. But it has its disadvantages too. The immediate online response or ability to instantly communicate with anyone has resulted in stress much in the teenagers and adults. Many of the teens and adults get addicted to it which has adverse effects on our body. From a small baby to a 80-year old man we all are bound to technology. Did you ever sit back and think how could a day be without technology? As the time has passed by both time and humans are losing its value slowly and slowly. As a result, the major issue over the time is of human connection. We all are connected digitally, no doubt. But are we connected emotionally? We could spend hours talking to a person in a digital way(either calls ,texting ,video calls) but when it comes to face to face communication we don't have time. This is very true. Our bond with people in a digital way is very strong.

Have you ever imagined yourself a day without a cellphone? Did you ever think in life how much are we dependent on it? For an instance, the first thing many of us do in the morning as the alarm goes off is to check cellphones. No person in this world could ever exist without a cellphone. The reason being is helplessness. It is sometimes impossible to measure how much we use technology each day. We can never escape technology, our day to day work is completely dependent on it

When we talk about small kids, they are much into gaming and understanding its features. It doesn't have much adverse effect on them, but the radiation from the cellphone, laptops, television may affect their eyes. But still they are being under the guidance of their parents. When we talk about teenagers and adults here is where the main issue begins. This is our working and developing age group ,the youth of our future. No doubt we are being benefitted the most through technology but we don't know our limits. First and the most important thing is to set our limits. We are so bound to it, that we are losing our social contacts with people. According to the statistics, young generation talks about 11 minutes to their mother and 8 minutes to their father. Isn't that shocking? We are so hooked to this social world that we lose our connect with our parents as well. Imagine that day when you sat with your family and had a talk about hours. The whole blame is not to be given to the youth because the adults are even more busier than us.

This has caused lot of adverse effects on health. The very first is eye strains, continuously looking at screens has led to lot of eye problems. The major issue that has been much talked about is Stress. That doesn't feel shocking because Yes , people are very much important to us. It works both the ways. Suppose for an instant, one of your friend is calling you repeatedly and due to some reason you are not able to receive the call. This develops a tension in mind of both the people. The stress work both the ways. So much of social connect with people results into losing yourself.

In the above paragraphs we talked about how much time we give to our parents. Now the most important question is: How much time do you give to yourself? You are so worried about others and their lives but what about your life. Did you ever sit back and talked to yourself. We are so into others that we forget ourselves. That is where the psychology issues come into picture. This is where the limit has to be mandatorily set. Everyone is not worth of our time and our ideas. Everyone is not worth our care and love. One must prioritize people in their lives. That is where you will also understand your worth and limit yourself when it comes to being social.

Yes, being not so actively social in this generation may turn out be very hard to even pass through a single day. But it totally rely on us how we handle it. Technology is something we have created and now we are only letting it dig our own grave. Technology isn't a bane, it has really benefitted and changed lives of thousands of people. Hence let it not turn out to be a demon to us because everything is on us. Hence, now it is on us to decide whether we should control ourselves towards technology or letting it control us.

**-By Sakshi Singh  
SE CMPN-B**





# The Real Effects of Technology on Your Health

All you laptop-using, touchpad-checking, two-thumb-texting, smart phone-listening grown-ups and kids beware: Those devices subtly change your back, eyes, ears and brains. Lifescript's Health Detective describes the damaging effects of technology on our bodies and minds...

Technology has crept into every corner of our lives, from obsessive texting to checking emails more often than a stockbroker eyeballs the Dow.

Sure, you're on top of Kim Kardashian's latest crisis, but smart phones, tablet computers and gadgets "have an impact on [your body], even if you're dealing with irrelevant information," says Adam Gazzaley, M.D., Ph.D., associate professor of neurology, physiology and psychiatry at the University of California, San Francisco.

Most of us absorb three times more information every day compared with 50 years ago, according to University of California researchers. We spend 12 hours in front of TV and computers – and that's just at home.

So is all this techno-toiling bad for us? That depends on the devices you use and how often, medical experts say.

No one expects you to put down your smart phone and live like our ancestors did. Researchers are conflicted so far, though, about whether the effects of media are good or bad for our brains. They do agree that it's changing how we think.

Which in itself isn't alarming: "Throughout our lifespans, our brains always change," Gazzaley says.

Lifescript called, texted and emailed experts nationwide to learn about the effects of media on our health. Read on to learn how it might be changing

## Effects of Technology on Health

### #1: Failing Memory

You drive while talking on the cell phone, text while listening in on a conference call, surf your iPad while watching TV. Multitasking is the new normal, and though it feels like we're more efficient, studies show it has the opposite effect.

"Your performance level drops if you stop one activity to pick up another," says Gazzaley, who conducts ongoing studies on the effects of media on our brains.

Multitasking participants had more difficulty filtering out irrelevant information than those focusing on one task at a time. Multitaskers also took longer to switch tasks, juggle problems and wasted time searching for new information when information they had was better and more reliable.

In fact, students from Columbia and Harvard universities retained facts better when they knew they couldn't get them from a computer, according to a study published in *Science* magazine in 2011. If they knew they could get the facts later online, they just remembered how and where to get it.

It gets worse as you age: Younger adults can retrieve the temporarily lost memory more quickly than older adults, Gazzaley says.

Tech solution: So, how should we handle the daily barrage of information and multitasking?

Gazzaley sets aside small amounts of times each day to "listen to music while I email and talk to a colleague." Otherwise his door is closed, his phone is turned off and he works uninterrupted. That's when "I can engage in high-quality thinking," he says.

## Effects of Technology on Health

### #2: Emotional Instability

Most adults don't need 450 Facebook friends to feel validated. Teens, however, are emotionally more vulnerable to the effects of rampant texting and online sharing, psychologists and physicians say.

Here's how:

**Sleep deprivation:** Teens need about 9 hours sleep each day, but often text late into the night, says Sherry Turkle, director of the Initiative on Technology and Self at the Massachusetts Institute of Technology (MIT) and professor of the school's Social Studies of Science and Technology department. That means they can't focus at school and cope well with social pressures.

**Too much codependence:** Modern teens are failing to separate from their parents and become independent thinkers, a major developmental step for adolescents. Blame cell phones and texting, says Turkle.

"Fifteen years ago, if a kid called his mother 10 times a day for advice, I would be concerned," she says. "Today it's, 'What else is new?' It's become the norm, but it's still an issue."

**No alone time:** Phones and social-media sites prevent teens from experiencing solitude, setting them up to be lonely when they don't have a connection. As a result, they often suffer from "fear of missing out," Turkle says.

"We're condemning a generation to not know how to sit in solitude," Turkle says.

Time spent alone helps teens better withstand periods when they're disconnected from their digital devices and improves the sense of intimacy and bonding that face-to-face – not virtual – social interactions provide.

**Kids' parents don't set a good example either.** "They can't walk around the corner to the store with their child without a phone attached to their ear," Turkle says. "It's modeling to kids that it's not OK to be unconnected."

**Tech solution:** Parents should insist that family members turn off their phones at dinner and spend time together, minus the media distractions, experts advise.

## Effects of Technology on Health

### #3: Strained Vision

About 40% of optometrists' patients experienced eye strain due to computer vision syndrome (conditions related to "near work"), while 45% complained of neck and back pain associated with computer or handheld device use, according to a 2008 survey by the American Optometric Association (AOA).

Many computer users assume awkward postures to position their eyes for better performance, according to the association.

Close computer work can cause light sensitivity, dry eyes, blurred vision, double vision, fatigue and headache.

Handheld devices force users to position the equipment "closer than eyes want," says Jim Sheedy, Ph.D., director of Vision Performance Institute at Pacific University in Forest Grove, Ore. "You have to exert more muscular effort to see at that distance and experience more symptoms than other technologies."

**Tech Solution:** To avoid eye problems:

- Limit time spent continuously in front of a computer. Look away from the screen every 20 minutes for 20 seconds, the AOA recommends. For the ideal viewing distance, set your monitor about 20-28 inches away from your body.
- Adjust the top of your monitor at eye level, so you're looking down at the screen by 10°-20° (4-5 inches). That way you'll avoid nodding your head up and down, causing neck and back strain, Sheedy says. Laptops, especially, need to be raised to "that sweet spot" where your eyes are looking down slightly.
- Lighting above your head should be dim. The areas within your line of view – the wall in front of you, for example – should be as bright as your computer screen. Avoid sitting in front of an un-shaded window or with one behind you.

You can "embrace new technologies but organize your day so you spend more time working at a desk, not on your lap," Sheedy says. It helps avoid eye, neck and back strain.





Also, research suggests that men who work with laptops on their knees may damage fertility. A study published in 2011 in the journal *Fertility and Sterility* revealed that men who sat with their knees together and their laptops on them raised their scrotum temperature by about 2°F in just 28 minutes. Earlier research showed that even that small rise in temperature can destroy sperm.

## Effects of Technology on Health

### #4: Hearing Loss

Can you hear me now?

Probably not well, if you blast music through earbuds for long stretches, says Brian Fligor, D.Sc., M.S., director of diagnostic audiology at Children's Hospital in Boston and an instructor at Harvard Medical School.

Wear and tear on ears is normal, resulting in some hearing loss in seniors. But what you do early in life sets the stage for how well you'll hear as you age, Fligor says.

If you use poorly fitted earbuds, attend loud concerts frequently or shoot guns for target practice, hearing loss can arrive even in your 20s. Teens, in particular, crank up their iPhones loudly to drown out traffic noise, conversation and even other ambient music. About half of college students in urban settings risk hearing loss.

Tech solution: To avoid hearing loss:

- Make sure your earbuds fit snugly.
- Limit your exposure to loud music (80% of maximum volume) to 90 minutes per day, says Fligor, an unabashed loud-music guy himself. You may listen to music at half the maximum volume all day without any risk. That level is acceptable to most people, he says, if it's not competing with loud background noise. "If I listen to cranked-up music for five minutes, then I give my ears a break the rest of the day," he says.

## Effects of Technology on Health

### #5: Muscle and Joint Pain

On average, we send and receive text messages 3,339 times a month, according to a 2010 Nielsen Company survey.

In Britain, about 3.8 million thumb-typers complained of pain from similar activities. Nearly 38% said they suffered from sore wrists and thumbs, the result of repetitive movements, according to a 2006 survey by Virgin Mobile, a British cell-phone company.

But not all researchers believe the thumb fatigue claims.

"That's an urban legend," says Peter W. Johnson, Ph.D., associate professor of environmental and occupational health sciences at the University of Washington.

Typing on a computer is like "bingeing and gorging, while texting is like snacking," he says. "It's intermittent, so you don't have the same cumulative effect as working at a computer for 4-6 hours."

Tech solution: To minimize potential pain from texting, Johnson recommends:

- Use both hands to avoid overburdening one appendage.
- Avoid sending texts continuously because it may hurt your hand and neck tendons, muscles and nerves over time, Johnson says. "If you feel pain from texting when you go to sleep and wake up with it in the morning, it's time to give it a rest," he advises. "Ligaments can take 4-6 weeks to heal when damaged."
- Rest your arms on a table to relieve your neck and shoulders.

## Effects of Technology on Health

### #6: Heart Trouble

The longer you sit either in front of a computer or TV, the greater likelihood you'll die earlier – even if you lift weights, jog or swim for 30 minutes a day, according to an ongoing study by physiologist Marc Hamilton, Ph.D., a professor at Pennington Biomedical Research Center in Baton Rouge, La. Women who remained glued to their chairs more than six hours a day were 37% more likely to die during the time period studied than those who sat fewer than three hours per day, according to an American Cancer Society study that followed 123,000 adults for 14 years.

It didn't matter if they were fat, thin or worked out daily, according to the study published in 2010 in *American Journal of Epidemiology*.

"Every chance you get, bend over to pick something up, walk or stand. Instead of sitting when you're on the phone, walk up and down the stairs at work – just move," Hamilton says.

Yogesh Bharambhe  
TE-B



# Young Adults And Technology

I fear the day that technology will surpass our human interaction. The world will have a generation of idiots. - Albert Einstein"

Technology is such a vast network which leads many people fall into its spiral behaviour. It basically has no end. Knowingly or unknowingly it is creating a wide gap between a real life and a social life and due to which it lead the young generations to live a more social life than focussing on reality. Adults these days are on the falling edge of the term known as life. They had changed the basic meaning of life, and technology plays a vital role in this issue.

Along with physical issues such as neck pain, strain on eyes caused by the harmful rays coming from the screen of the laptops or phone, headache, the youth are troubling themselves with mental issues like comparison of selves with other people and this increases inferior complexity amongst them. By looking more and more people on internet achieving high and setting goals in their fields, they start to compare themselves with those people and get confused about their career. Youths get easily distracted and stressed out. If they are alone, most of the time it is seen that they use social media for avoiding the loneliness factor which can also increase loneliness and leads the youth to depression. The real problem is youths want to achieve everything and they keep the potential to achieve what they want to but they do not want to put any efforts, they always want a shortcut usually in every problem in life. They prefer smart work over hard work which is good but simultaneously it worsens the situations sometimes and all the reasons behind this is Laziness. Laziness is one of the most common factors in everyone's life which is

directly or indirectly effect of technology on human body. Due to which many physical illness occurs such as obesity causing life of youth towards death.

One of the major drawbacks of technology is security issue. Cyber Crimes are increasing day by day and security and privacy became an illusion. Fake accounts can be created and many nuisances can be done causing the deterioration in the image of the real person. Technology is also a platform that leads to many threats including terrorism. It is easy for the People who are a part of any crime to use this technology for threatening purpose. Anyone can fake the news and publish it and people will believe the same because people think whatever is in the news is truth anyways. Youths nowadays are more into faking themselves than to show the reality of selves because some or the other way they feel that in social life, nobody cares for reality. Due to which, the real side of the youths are fading day by day which results the youth to carry that fake mask and slowly they start to become the one like they fake. Technology results to less face to face meetings. Relations are losing its importance and values. Personal Gatherings are replaced by online messages and calls which results in huge misunderstandings between people sometimes. Libraries are replaced by Televisions and many online shows. Books are replaced by movies resulting in less imagination, less thinking ability among all the youths.

Impact of anything are both positive and negative as well. It is always us to decide how to grasp it. Technology can also be used as one of the great opportunity for being in this rat race competition. Many of the youths are taking the technology as a tool and using it as their study material such as many online courses and certifications are provided by top institutes. Be it gathering information from the internet or choosing the correct path for them. For e.g. Many of the youths are grabbing attention from all over the world, be it writing the blogs, posting the photographs for photography, uploading the art videos which includes dance, cooking, music and many more. Using Technology as a platform to serve people entertainment is one of the mainstream for influencing people to do more. Internet is one of the sources where things go viral at the speed of light. So the aim behind creating every technology is to use it beneficially and not for the harmful purposes. The current generation should learn the things as many as possible because the lifetime is less for learning everything in life. Many more apps were made for making one's life easy. Examples are online shopping, online delivery of food, etc. These all things have made life much easier than before it was. Communication became easy amongst all. People can sit and communicate with anyone across the world.

Youths are the future of the world. Everything they do affects the same to others in the world. The Life is a chain and all of the people living it are connected with each other by some or the other means. So if one does wrong, its effect will be universal. At the same time if someone does correct it will lead to a good life which can be a motivation for others. Using the technology in a proper way is to be understood. Learning from every tools of technology should be achieved to lead a precious and productive life.

“One machine can do the work of fifty ordinary men. No machine can do the work of one extraordinary man. - Elbert Hubbard”

**-By Srishti Singh  
SE CMPN-B**





# Faculty Inputs

# Life Without Technology

Technology drives our lives today and we are totally impacted by it in many aspects, that sometimes we miss on those beautiful things that can bring to us so much joy and happiness.

Life Without Technology...

We barely hear the morning birds chirping,  
As we wake up with our mobile clock snoozing!

We rarely hear the rustling of papers and leaves,  
As we are too busy typing away keys.

We will never learn to surf the ocean waves,  
As we are too busy surfing from page to page.

We will forget what it feels like to live our lives  
Offline.  
As we are 24 by 7, Online.

We will forget saying "Bye's" before going out  
from our homes.  
As by the time we're out the door, we're already  
listening to music on our phones.

We tweet so much with each other,  
As more than baby-birds tweet for their mothers.

We don't prefer chatting in person, but to chat  
online,  
As we have more friends on Facebook than in  
real life.

We don't remember Birthdays and Anniversaries  
anymore,  
As we know that our phone wishes them  
foremost.

We no longer require a Torch-light,  
As we are guided by our phone-light.

We hardly look out of our windows, to enjoy a  
sunrise,  
As we are busy forwarding Good Morning  
messages through "WhatsApp" and "Hike".

We just don't see our wall clock ticking,  
As we only bother about our phone battery  
dipping.

We buy a Dictionary, just to keep it in the  
bookshelf,  
As we find the meaning of words only through the  
Google Help.

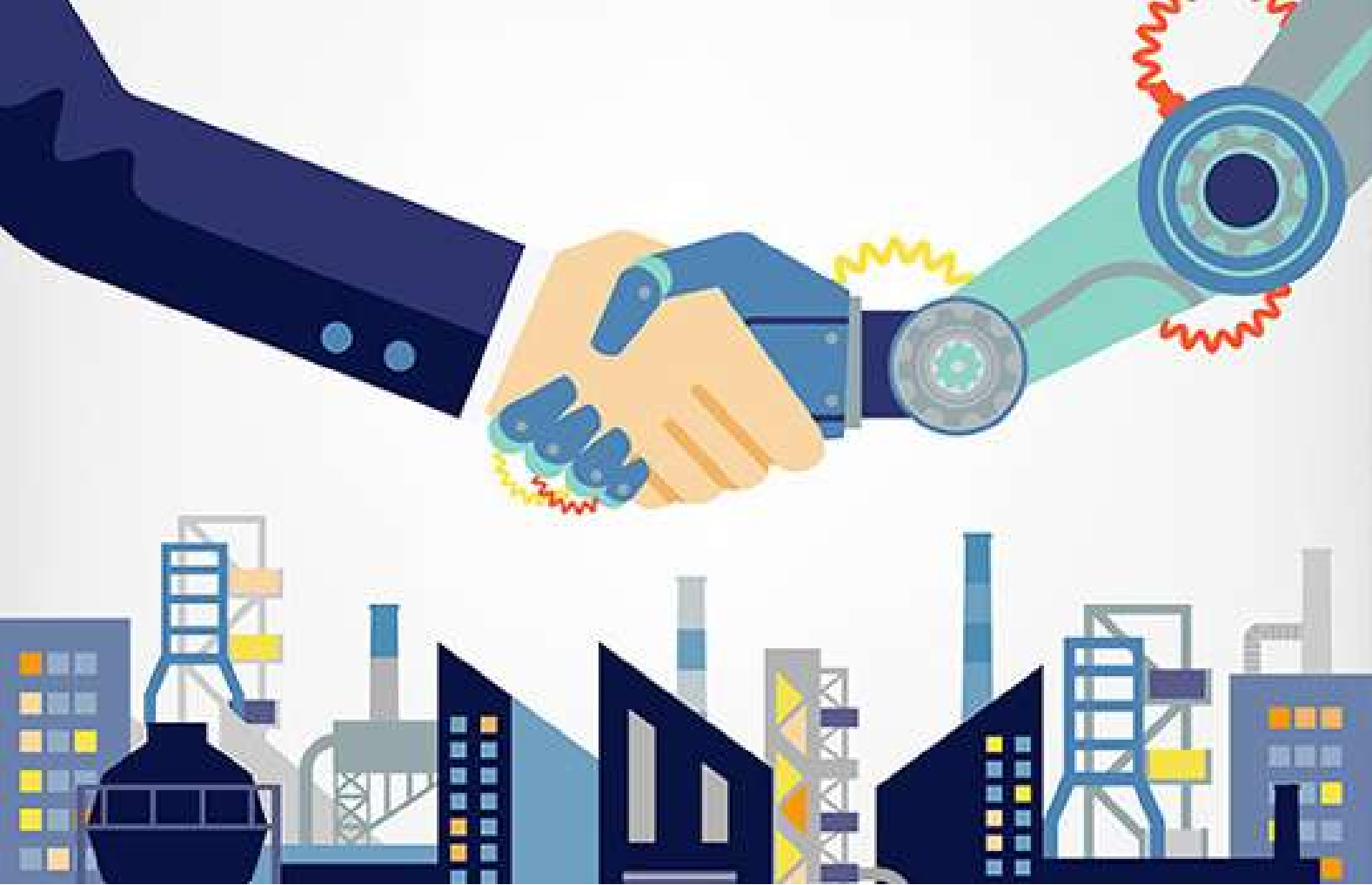
A "home" is now just a button we press,  
To escape from the multi-tasking mess.

The mornings have gotten dark and cold,  
But we're too distracted by the "Apps" on our  
phones.

We are mesmerized, hypnotized and satisfied,  
By a two-by-four block of metal that sits in our  
pockets.

We have settled for something that cannot love  
us back.  
Emotion is the only thing that technology lacks.

**-Vidyadhari R. Singh**  
**Assistant Professor-CMPN Dept.**



# INDUSTRY ARTICLE

# Impact Of Technology On Finance And Banking Sector

I always wanted to work in the financial sector and was lucky to start my career in the retail banking space. I had no idea that the banking sector which I studied during my graduation had already changed and continued to change rapidly. To grow at a rapid pace, banks were looking at products beyond the vanilla asset and liability products. It started during the stock market boom, where a new mutual fund scheme would be launched almost every week, if not two. This introduced cross selling of third party products like mutual funds and insurance products. Both products combined helped banks gain customer confidence and a long-term relationship. Needless to say, it helped banks to grow their business in a big way. This evolution in the banking space was made possible with innovative technology, which would help the bank's business partners and product managers to know which product are selling and which are not. Product managers were now equipped with new generation technology, allowing them to tweak their product offering based on customer needs.

This evolution also introduced Internet banking, which opened new horizons – aimed at the next generation of customers who would prefer to sit on their comfortable couch and perform almost all banking transactions. Right from opening an account, transferring funds, investing, paying bills everything was now available online at finger tips. Today we take all these for granted. No one likes to stand in queue- it must be easy, seamless and instant. The foot fall in a bank's branch is far less today compared to a few years ago.

Payments bank is the new buzz word! technology is allowing banks to setup shop without having a physical branch. Payments bank has now made possible for a local mom and pop store (Kirana Stores) to operate like a bank branch - allowing customers to open accounts, deposit cash, transfer funds, make bill payments etc. RBI was the brain child behind the idea of payments bank with the key purpose of financial inclusion, allowing even remotest location accessible for individuals banking needs. Though payments banks are limited to only savings account and account balance should be less than 1 Lakh, but the impact they have is far and wide. For example, Airtel Payments Bank made it possible for over 200 villages go completely cashless (Source: ET). This could not have been possible without modern technology, where all you need is a smart phone and internet access.

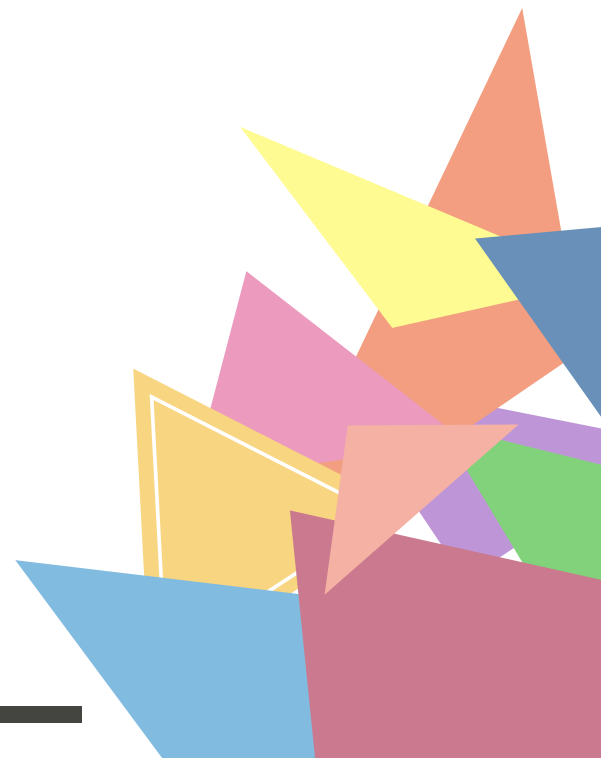
UPI (Unified Payment Interface) was introduced for making payments easier and to increase the pace of financial inclusion. Government also stepped in to give a push and increase acceptability by introduced BHIM app base on UPI which allowed consumers to make bill payments and transfer funds to anyone and everyone who holds a bank account. Unique feature of UPI is that you do not need internet for transferring funds or to check your balance. It operates using USSD based mobile banking. Give it a try press \*99# from your mobile phone if your number is registered with your bank for making UPI payments.

Today when we see festive offer sale by the likes of Flipkart and Amazon, banks must work hand in glove with the E-Commerce giants to manage the load on their systems and avoid system crash/down time. Online transaction volumes banks see today are massive, some even high as 200 transactions per second! which is a paradigm shift from the traditional transactions and volume. Collaboration with the E-Commerce giants has created a win-win situation for both business. No cost EMI, Instant EMI, EMI on Credit cards/ Debit cards, etc. are all by products of this collaboration which was created using new age technology - enabling customers to buy the product which they wanted but thought was out of reach.

Technology has also helped banks to keep a tab on customers. CIBIL (Credit Information Bureau India Limited) is the first company to store all the information of customers in India. A single database, which stores complete history of loans and repayments made by customers, is available as a centralized database. Using this information each customer is ranked, which enabled banks to quickly assess the customer behavior and then decide the loan eligibility and interest to be offered. Traditionally it would take weeks to say the least and customers would have to follow up with bank on their loan application, but not anymore.

In the future, banks will have to leverage the latest digital technologies, Artificial Intelligence (AI) and Machine Learning (ML) to help them in better customer engagement, experience and value. Bank's looking for scaling up their operations will do so with the help of Machine learning, Open Banking/API and cloud technologies.

**Mr. Aniket Raut**  
**Product Manager**  
**OFSS**







# *Achievements*



# BE TOPPERS

Shubham Vishwakarma	9.73
Shaheen Sayyed	9.66
Vaiditya Chauhan	9.39
Vani Singala	9.36
Tanvi Sanzgiri	9.30



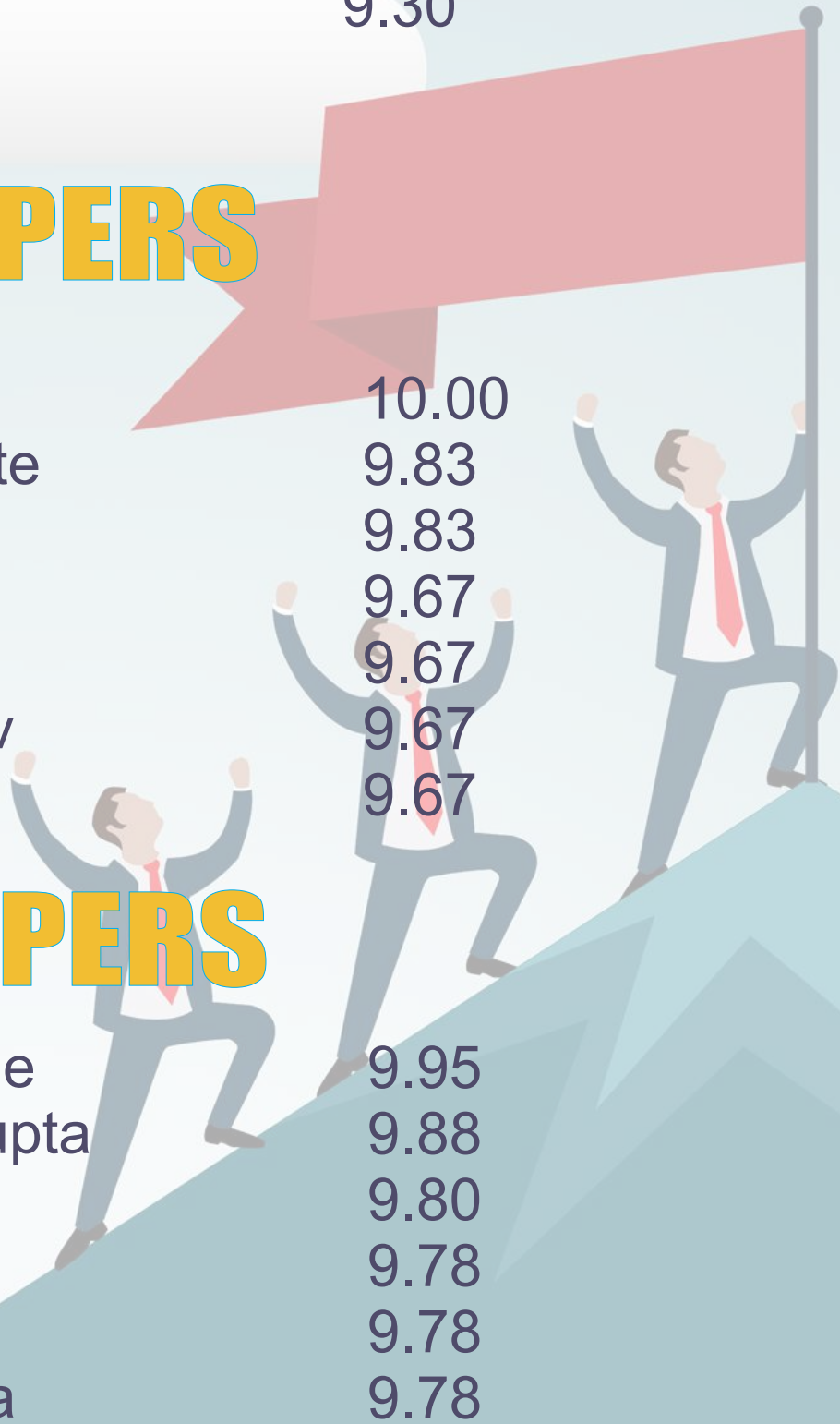
# TE TOPPERS

Anshul Gupta	10.00
Shreya Hegiste	9.83
Hiresh Joshi	9.83
Swapnil Arya	9.67
Ankit Gupta	9.67
Smruti Jadhav	9.67
Vivek Saroj	9.67



# SE TOPPERS

Sandesh Gade	9.95
Aishwarya Gupta	9.88
Smriti Singh	9.80
Kasturi	9.78
Dolby Agrwal	9.78
Karan Kukreja	9.78





# Co-curricular Activities

**Karan Gujar**

**Achieved 231st Rank out of  
19,803 participants in CodeChef.**

**Nirja Rajeev**

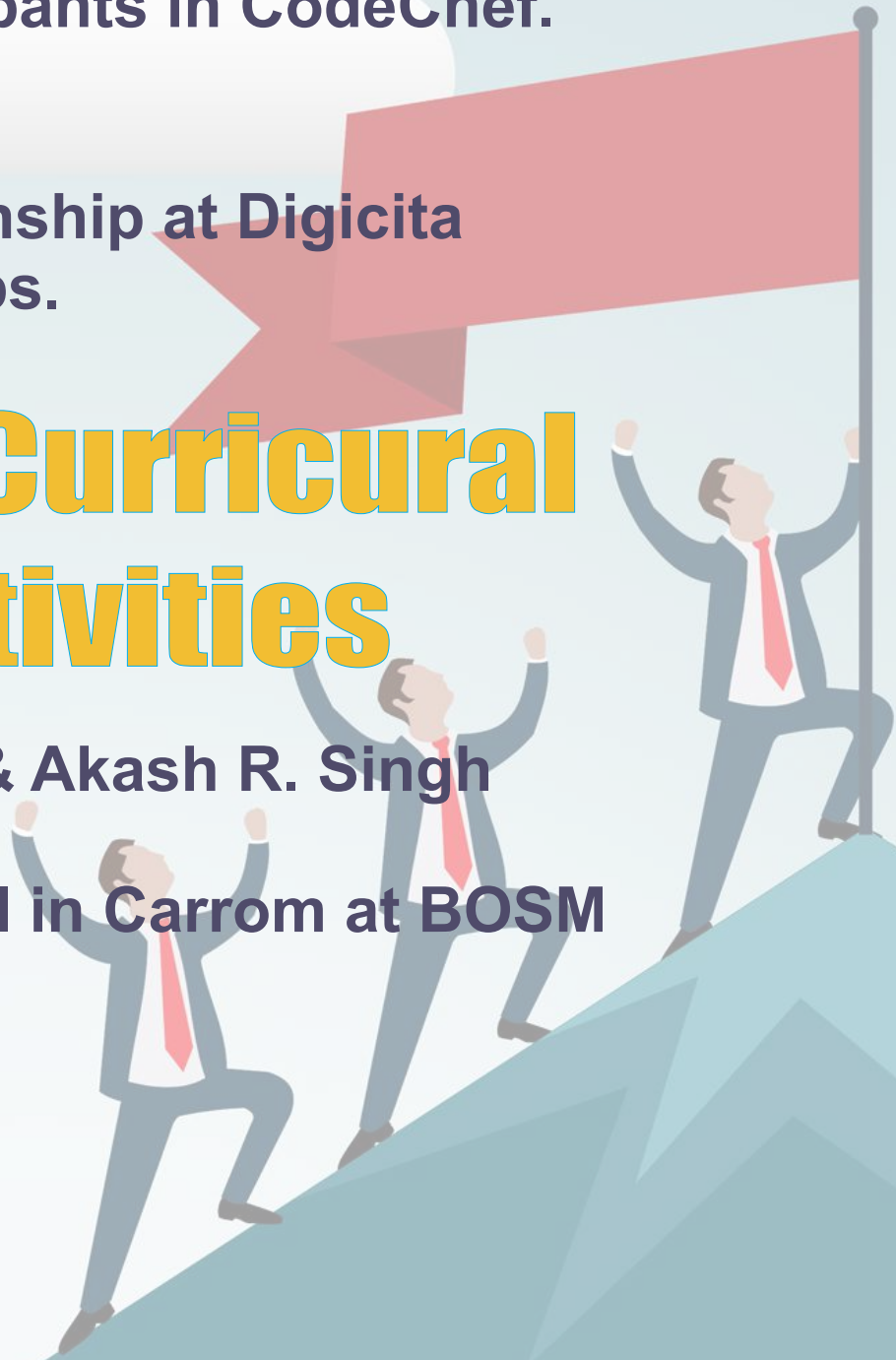
**1 Month internship at Digicita  
innovation labs.**



# Extra Curricular Activities

**Ankit Singh & Akash R. Singh**

**Bronze Medal in Carrom at BOSM**



# Student Editorial Committee



*(L-R) : Parth Singh, Shrishti Singh, Athashree Vartak,  
Adit Rathi, Anand Vishwakarma, Rakshit Shetty.*



# Acknowledgements

# ACKNOWLEDGEMENTS

*Success is the result of perfection, hard work and determination. Team Nimbus has always been dedicated in bringing the best edition every semester. With the same determination, we have worked hard to bring this edition.*

*We would like to extend our deepest gratitude to the Honourable Chairman, Trustees and CEO of Thakur Educational group. Also, we are deeply thankful to our Principal, Dr. B.K. Mishra, Vice-Principal Dr. Deven Shah, Mentor Dean Dr. R.R. Sedamkar for their constant encouragement and support.*

*Heartiest accolades for our HOD Dr. Sheetal Rathi and Faculty In-charges Mrs. Vidyadhari Singh and Mrs. Ruta Pathak, without them Nimbus wouldn't have been what it is today.*

*At the end we would like to express our sincere thanks to all the students, teachers and industry experts for providing us with their valuable inputs through articles and interviews.*

***-Team Nimbus 8.0***