



# NINTH EDITION 2015-2016

# **IN HOUSE JOURNAL**



# Note from the Principal's Desk

Empowerment and employment is what is most desirable in India and where a large number of youth with aspirations for a better future dare to dream of finding security in society. Opportunities are enhanced with a focus on entrepreneurship.

Technology and an understanding of the versatility of its use, including innovation and creativity in the digital world would provide an awareness for exploration in the field. However, one needs to remember that technology owes ecology an apology and hence, we need to consider with care the implications of research and manipulations in technology could have far reaching effects; we are treading on egg shells.

Let us with caution, progress towards a safe Greenfield Digital India. Congratulations to Madurima Ghosh - President, Manasi Agarwal – Vice-President, Ms. Chandrani Sengupta and Mrs. Swati Chatterjee for putting together articles from student contributors for Connect 2016.

Sr. Christine Coutinho Principal

# Note from the Staff Advisors' Desk

Digitally empowering citizen is the buzzword now in the country. This year, the society presents their in-house journal "Connect", highlighting the idea to Connect digitally to stimulate Digital Empowerment and Information Technology. The concept of e-governance is expected to ease out the hassle of administrative roadblocks by providing customized services on demand. The objective is to reach the remotest parts of the country and transform lives significantly. The social inclusion schemes can be better implemented through digital connectivity. Along with public sector, private sector will also play an important role in providing location specific Wi-Fi access and cloud based services on demand to citizens like e-banking, e-justice, e-education and the like. The future lies in digital empowerment!

The enthusiasm of contributors has enabled us to present the h edition of this journal. We thank the ICT Society President Madhurima Ghosh and Vice-President Manasi Agarwal, for their sincere and ardent effort and our Principal, Sister Christine Coutinho for making this venture a success.

Ms. Chandrani Sengupta Ms. Swati Chatterjee Mr. Soumya Dutta

# Note from the Editors' Desk

Loreto College is home to many societies, and the 'Information, Communication and Technology' or I.C.T Society forms an integral part of the same. The prime goal of this society is to educate students about the various facets of the latest developing technologies that are taking over the world by storm and are influencing our lives in a diverse way.

As the editors, it is a privilege to molding the journal, through which we are able to inculcate knowledge about the widely talked-about Digital India Programme. We hope that the readers benefit from the read.

President: Madhurima Ghosh Vice-President: Manasi Agarwal Treasurer: Anantika Tehlani

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#### Future of a Technologically Advanced India

Our age is known as the age of Information Technology. Information Technology with its superhighway has not only revolutionized man's way of working but also his very existence. IT (Information Technology) revolution is sweeping our civilization bringing about unfathomable changes in our present-day civilization. Twenty first century belongs to the IT world. The term 'Information Technology' or simply known as IT is a generic name given to all improvements that are taking place in our world due to the inter-linked advancement in technology, learning, and information. The term refers to recent technological developments that are taking place in our world as a result of better technology, due to better information.

It consists of a number of allied modern advancements such as, computer, Internet, websites, surfing, E-mail, Video- conference, fax machines, smart cards, credit cards, ATM cards etc. All these have been possible due to the advancement in information gathering technique or system which opens us to a world of technology and information full of immense possibilities. Two essential components of IT revolution have been the development of computer and internet. These two developments have revolutionized modern civilization. Today at the press of a button we can get any information that we want from anywhere in the world in a fraction of a second, sitting in our room. This easy and quick access to information has been instrumental in improving our communication, travel, business, entertainment, space exploration, defense capabilities, medical surgeries etc. "We can visit sites situated thousands of miles away, chat with people sitting in other parts of the world, see the latest movies, watch live international matches, read daily newspapers, attend business conferences, conduct business transactions, visit world famous libraries, go through the latest books etc. all at the click of a key on the computer.

The facility of internet and surfing opens us to the world of information superhighway enabling us to seek the information that we want. With the possibility of downloading programmes and information through a computer to a paper, our task of gathering information is a few minutes affair. In this manner, today the process of gathering knowledge and information has become, easy, cheap, fast, and enjoyable. This has been the greatest advantage of IT boom. This revolution has also altered the very face of business operations and E- commerce is becoming a fashion of the day. We can advertise our products and seek jobs and make ourselves available through the internet. IT boom has also revolutionized our style of living. It has made our life easy, pleasurable, and luxurious.

Today, we need not go hunting for household items in congested markets. Sitting in our room we can order things, buy tickets, talk to clients, listen to lectures, take part in on-line lotteries, sign business agreements, do bank transactions etc. In other words the recent development in the IT world has reduced man's labour, workload, and has created a better world to live in. Today IT revolution is sweeping over the world. Although, IT boom has revolutionized the western world beyond recognition it is still to make much headway in changing lives in India. The boom has, however, affected only the affluent and the urban India. Therefore the benefits of IT boom needs to penetrate down to the ordinary men and women living in our country.

#### Aheli Bose Political Science Honours (1<sup>st</sup> year)

#### **Digital India Today and in Future**

Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.

As we all know digitalization is a very important transformation happening in our country at present. Today digitalization has become very important measurement of the level of development of any country. The growth of the INFORMATION TECHNOLOGY SECTOR has given a thrust to Digitalization in India. India ranks 15th in the INFORMATION TCHNOLOGY in the world t present. The IT sectors lead to an increase in the employment in the country due to BUSINESS PROCESS OUTSOUCING and COMPUTER SERVICES.

Today the importance of internet and computer technology has increased tremendously. Any work t the present world requires good knowledge of computer and technology. Each and every teenager today has become a techno-savvy. Internet influences our lives a lot at present. There is an increasing demand and a new opportunity for institutions to make their curriculum resources more accessible and to promote this access to a wider and increasingly diverse audience.

Internet is very famous nowadays for satisfying people with various services related to various different fields. It is a very versatile facility which can help you in completing many tasks easily and conveniently with few clicks. It can be any work of daily usage or any specific service which needs a lot of research and formalities to be done beforehand. Almost everything is now available over internet in this age of advancement of technologies. It is in general practice nowadays for a person to look for a particular solution over there and getting satisfied with the appropriate solution. We can pay your bills online and purchase various items by going through various websites and choosing among a variety of options. One can get information on any particular thing around the world using internet facility.

Digitalization is seen as the most important way to achieve this. It provides on demand local, national, and international access to resources, curriculum and sources.

Tech Giants from Silicon Valley, San Jose California expressed their support for Digital India. Facebook's CEO, Mark Zuckerberg, changed his DP in support of Digital India and started a chain on Facebook and promised to work on Wi-Fi Hotspots in rural India. Thus we can conclude by saying that DIGITL INDIA is definitely hoped to prove valuable and a stepping stone to the development and restructuring of the villages in India. It is hoped to give a momentous to the development of India largely. The success or failure of this project would largely determine and influence sustainable development of India in future.

Uzma Faiz Geography Honours (1<sup>st</sup> year)

#### **Technology: Transformation of Society**

Computer is considered as a Machinery God, it reduces human labor. The work which required much time is now done in just a fraction of seconds. From education to medicals, computer use is inevitable. Darwinism says "The evolution of the PC was in parallel with the evolution of the people that gave a way of thinking and instincts, delegating it, a full-fledged member of our society, the power to play, depending on the mood and changes in the network, either demonic or angelic role in human life." Sometimes we use computer unknowingly, while using our credit card, computers process information and performs transaction to pay our bills. When we need cash, ATM transacts the money which is a computerized process. We can easily connect to our long-distant relatives only through a mouse click. Nowadays e-commerce is giving a tough competition to the retail shops and even the shopping malls. Globalization is taking place faster due to computers.

"Whether the digital era improves the society is up to its users". Social media has inexorably changed the world, driving openness and fear- but it is not completely out of control.

Technology builds geography, connect communities and transforms society. While on the other hand it is an issue of distraction and attention, thus resulting in a battle between the utopian and dystopian view points. So we can assume that technology is NEUTRAL.

One of the major problems of recent world is cyber crime. It is a criminal act dealing with computer and networks. It is nowadays considered as the most dangerous criminal threat. It is silently sweeping the globe as criminals turn our ever-increasing dependence on computer against us. And the saddest story is that only 2% of the India firms spent substantially on their cyber security budget in the year 2015. Cybercriminals have started developing a flourishing local black market. The maturation of cyber crime is tied to the services they offer which includes not only selling stolen credit card numbers but also spam attacks.

The task of stopping this crimes are becoming an uphill battle. The reality is online criminals are rarely caught and the reason is the hackers use one computer in one country to hack another computer in some other country. Maharashtra tops the list with more than 1800 cases in the 3 years while Andhra Pradesh including Telangana ranks second with 1500 cases. Karnataka stands third and Kerala comes fourth. These are places where Information Technology Act has been in news for all wrong reasons. West Bengal ranks eighth while Delhi ranks tenth.

In this 21st century, we cannot refrain ourselves from not using computers, but we need to be simply cautious and careful. Internet users must be alert about emails and must run antispyware software. Moreover the government is working on this issue. It has taken a number of steps in the form of awareness training, legal framework and emergency response. The world is now shaped by digitals, thus we also can walk forward towards civilization only through it. Even the government of India has started an initiative on DIGITAL INDIA to improve online infrastructure which connects rural areas with high speed internet networks. I as a citizen appreciate process because internet has a high potential and this may help the rural children to get education which is a bright step towards being a developed country.

#### Mahasweta Chakraborty Geography Honours (1<sup>st</sup> year)

#### **Digital India: Industrial and Technological Development**

This faith of India is peace is in keeping with her ancient tradition and her won genius. India can be singled out as a nation which has hardly ever waged wars of aggression simply for self-aggrandizement. Mahavir Swami and Gautama Buddha tirelessly preached against all kinds of violence. Their teachings were no heeded, but also acted upon by Indian emperors. India had learnt from Mahatma Gandhi that stable pace could be found on the improvement of economic condition of the people.

Peace and harmony is sometimes disturbed in India because of the scarcity of commodities. Unless there is peace and harmony is the country, it is not possible to make India politically strong, economically better off and socially united. There should be peace within the country as well outside the country.

For the industrial and technological development of the country, the Constitution provides for setting up of a Planning Commission to frame plans and programs for the rapid economic development of the country. Community development Projects, National Extension Services were launched. A chain of scientific laboratories, agricultural Research Institutions, Technical Institutions, a gigantic public sector of economy, were created. Means of transport and communication system such as railways have developed. To make the economy boom the nation needs to put a stop towards child labour. It is very unhealthy for these children to work for long periods of times in an unhealthy environment. Just like other nation India needs to set aside money to help under privileged families meet their basic needs. Indians need to pitch in and work together to make the economy grow. In order to have a sustainable economy we need to stop the population bursts, poverty, unemployment and child labour by educating the citizens of India.

Chandrima Das English Honours (2<sup>nd</sup> year)

#### **Digital India: Power to Empower?**

Digital India aims to ensure that citizens can access government provisions and services electronically, as well as to facilitate citizens' communication with various government departments through the use of digital infrastructure.

In order to effectively examine the merits of Digital India the current condition of India's digital sector must be considered. Globally, India has the third largest number of internet users, exceeded only by China and the U.S.A. However, the proportion of population with internet access is relatively low, at approximately 19 per cent. Furthermore, only 3 per cent of the Indian has home internet access. Consequently, 60 per cent of Indian internet users access the internet via their mobile phones. There exists, also, a pronounced digital divide. In 2010, over 75 per cent of India's broadband connections were concentrated in cities and less than 8 per cent of India's internet users are located in rural areas.

Ecommerce comprises a small but rapidly expanding part of India's economy. This is especially true for e-retail, whose share in India's retail sector has increased from 10 per cent in 2009 to 18 per cent in 2013. An Internet and Mobile Association of India (IAMAI) forecast predicts that e-retail expenditure will reach \$16 billion in 2018, around 8 times the e-retail expenditure in 2013.

The Indian digital sector shows a trend of growth in internet participation among citizens, as well as in the ecommerce industry, which must be facilitated and encouraged through suitable government policies. Furthermore, the rural-urban divide in internet access, combined with the increasing integration of the digital sector with other sectors, puts poorer and rural sections of the population at a disadvantage when seeking employment. Digital literacy enriches human capital, which is the stock of knowledge, habits, social and personality attributes embodied in the ability to perform labor so as to produce economic value. Hence, digital literacy facilitates economic growth and is necessary for improving the employment opportunities for large sections of India's population.

The Digital India programme is intended to improve both digital literacy and digital infrastructure. The three main goals or "Vision Areas" of Digital India are:

Vision Area 1: Digital infrastructure as a core utility to every citizen;

Vision Area 2: Governance and services on demand;

Vision Area 3: Digital empowerment of citizens.

Digital empowerment would also be brought about by the provision of digital resources and services in Indian languages. Citizens will also be able to interact in order to facilitate participative and interactive governance. This platform will provide a venue to discuss and rate government policies, and to make suggestions.

Hence, Digital India aims to mitigate various problems currently present in India's digital sector, such as inadequate digital infrastructure, lack of digital literacy, inequities in access to

internet, low broadband speed, as well as lack of cohesion between digital sector and other sectors of the Indian economy. Furthermore, Digital India policies, if successfully established, would encourage entrepreneurship, as MMPs would make the entrance of new businesses and investors into the market much easier. MMPs may also improve efficiency and reduce costs for businesses. Digital India will be carried out largely through public-private partnerships, which would provide business opportunities for digital sector firms. Also, as previously mentioned, e-retail comprises a significant portion of ecommerce, and hence the integration of financial sector and digital sectors through online banking could increase e-retail expenditure, and thus benefit the ecommerce industry. The digital sector is intrinsically globally-integrated, and the e-Trade MMP could improve Indian digital sector's global competitiveness.

Digital India's goals regarding digital literacy are also commendable. Improved digital literacy would improve India's human capital, and increased access to the internet may enable poor and rural populations to more easily find employment, training and education opportunities. Also, several Digital India policies, advocate financial inclusiveness, while others provide training programmes.

Though Digital India has the potential to drastically improve India's digital sector certain problems may arise through its implementation. Firstly, many of the goals emphasized in Digital India programme are highly interdependent, and failure to accomplish goals in one Digital India project could jeopardize the effectiveness of the other projects. For instance, the endeavor to move on to a system where a significant proportion of transactions between the government, firms and consumers would be carried out online necessitates the establishment of a vastly improved digital infrastructure. Lack of internet access, or even lack of sufficiently fast internet, may render some citizens unable to participate fully in the economy or to avail fully of certain government services.

Digital India shall be carried out predominantly through public-private partnerships, where the private sector motive of profit may conflict with the welfare goals of the public sector.

Conclusively, the success of Digital India depends largely on whether it is able to adequately improve digital literacy and to provide a more equitable and effective system of digital infrastructure. Accompanied by improved digital literacy and infrastructure, Digital India's policies are likely to benefit the Indian economy.

Rhea Banerjee Economics Honours, (3<sup>rd</sup> year)

### Hopes and Hurdles to a Digital India

Digitization implies connectivity, connectivity leads to empowerment, and empowerment is essential to development. Therefore, it appears only right for a so called "developing country" like India to consider harnessing digital technologies as a major step on its road to development.

The basic understanding of the Digital India programme stands on the foundation of nine distinctly defined pillars that are acknowledged as the means to this vision. These pillars are undeniably opportunities in themselves, but the gigantic scale of the programme is a major challenge. Moreover, these nine pillars individually bring forth several obstacles to their achievement. Before we analyze each of the nine pillars individually, we can classify them under three broad heads on the basis of their applicability – the digital foundation layer, the citizen interface layer, and the business facilitation layer.

The digital foundation layer is composed of the first three of the nine pillars of the programme – Broadband Highways; Universal Access to Mobile Connectivity; and the Public Internet Access Programme. These are the building blocks of the entire programme.

Broadband across India's urban and rural areas is absolutely essential to create a national information infrastructure. India is still way behind many other countries in broadband penetration. The implementation of broadband highways is seemingly the toughest challenge for the Indian Government. More so considering the difficulty of laying the fibre cables effectively, keeping the quality of service and functionality achieved at every Panchayat point of broadband in mind. The Internet has already proven its mettle as the masses' weapon, both for gaining knowledge through information and for voicing grievances via social media. Moreover, if executed successfully, the country can expect overwhelming advances in investment, employment opportunities, human empowerment, e-education and e-governance.

It is often remarked how almost everyone owns a mobile phone today. However, this is only partially true, that too only in the cities. More than 55,000 villages are still devoid of mobile coverage. Filling connectivity gaps and increasing mobile network penetration in the country have naturally emerged as important goals to work towards a digital India and the universal access to mobile connectivity is thus noteworthy.

Unfortunately, given the prevalent complaints with regard to call drops and call failures, simply achieving universal access to mobile phones doesn't guarantee a well working network. However, this problem is certainly not as big as the intense shortage of spectrum that has increased costs besides deteriorating service quality.

Public Internet access is the third important goal in the digital foundation layer. To facilitate customized content through accessible and affordable Internet, that too in local languages across India, the government aims to double Common Service Centres in villages and to convert 1,50,000 post offices into multi-service centres by March, 2017.

This pillar of Digital India too comes with its own share of challenges, the smooth functioning of market dynamics being a major obstacle. Growth-friendly government regulations can bring about an optimal balance between demand and supply and thereby create a prosperous Internet access space.

The pillars, namely e-Governance; e-Kranti; Information for All; and Early Harvest Programmes, all classified under the citizen interface layer, deal with the improvement in the experience with government offices. They address needs like reducing paperwork, creating easily understandable workflow models, digitizing communication and records, and providing greater transparency in service delivery.

This ideal is upheld in the attempts to use technology as a tool to reform the Government through the alteration of fields, simplification of forms, provisions for online applications as well as their tracking, and the creation and use of online repositories to facilitate easy, online submission of essential educational and identity documents. India's e-Governance models ensure quick and efficient online rendition of government services to citizens, and also between the State and Central governments, between the government and the employees, and between the government and the commercial business sectors.

However, the diversity within the country in addition to its expanse and overall federal structure pose innumerable obstacles to the realization of the e-governance vision. Besides Internet constraints, the fact that the states have ruling political parties different from that at the center, creates problems of political nature. Linguistic barriers add on to the difficulties.

E-Education; e-Healthcare; increased usage of mobile banking; the provision of mobile based emergency and disaster related services; facilitation of real time information and inputs for farmers; aims to incorporate a strong interoperable Criminal Justice System and Information and Communication Technology (ICT) enabled courts are among noteworthy initiatives.

Transparency and accountability are both essential to the growth and progress of a country, which in turn are heavily dependent on the government-citizen interaction within the country. The sixth pillar, Information for all, empowers the citizens with open access to government documentation and data and thus allows the government to use social media and web based platforms as means to engage with citizens using existing resources.

Electronics Manufacturing and IT for Jobs are categorized under the business facilitation layer. They explore means to improve business environments and technology led delivery options to extend the gains of IT businesses to rural India.

The pillar to promote Electronics Manufacturing voices an ambitious goal of net zero imports by the year 2020 and achieving this goal demands coordinated endeavors in a variety of areas, some of which are economies of scale, taxation fronts, procurement policies, the maintenance of safety standards, and brand building.

However, critics of the programme believe that focus on areas keeping human capital in mind would probably be much more advantageous. This criticism is strengthened by the apprehension that the "manufacturing first" focus may prove rather detrimental to the pace of the progress made by the Digital India Programme.

Over 2.3 million Indian Citizens today are engaged in the field of Information Technology (IT), thereby making the sector, one of the country's largest employers. The pillar of IT for Jobs focuses on the purpose of job creation for one crore of the rural youth in the IT sector.

Provisions to train people in smaller towns and villages, for Service Delivery Agents, and for the rural workforce on Telecom and Telecom related services comprise important aspects.

The Northeastern states have been the focus, with the intention to set up Business Process Outsourcing locations (BPOs) in each of them in order to ignite ICT enabled growth.

Quality comes into view as the toughest challenge in the implementation of this pillar. The manpower resources that are available for jobs in the technology sector are, more often than not, undertrained and inappropriately matched. A large fraction of most firms' investment is forced into provisions for training new employees.

Difficult as it may be, the realization of the Digital India programme is not impossible. One of the most significant factors that have worked to its advantage is the amount of publicity that it has achieved. It has motivated up and down the line, to say the least. It is absolutely necessary to admit that this is an extremely ambitious programme and realizing the vision of a digital India will be a huge step on India's road to development.

Ayushi Datta Economics Honours (2<sup>nd</sup> year)

### The Picture of a Digital India

In this modern, fast-paced world, being digitally empowered is one of the key elements for the development of a nation. The crux of the programme is to ensure that government services are made available to citizens electronically, improving online infrastructure and increasing internet connectivity. The internet, acting an indispensably significant role in our lives, assists us in executing a wide variety of services, including booking railway tickets, banking services, buying cars and other commodities, etc.

Knowledge is strength, which serves as the key to empower people. Digitization enhances and upgrades education that can reach the most inaccessible regions through digital learning like, for example the internet, e-books, etc. Taking into account, these advantageous benefits, the government attempts to connect rural areas with high speed internet, so that 'access to information knows no barriers'. This can potentially bridge the rural-urban divide.

Digitization also incorporates widespread access to mobile connectivity which has been one of the primary focuses of this programme. The Digital India programme proposes to set up broadband highways as well as initiate e-governance and e-kranti (electronic delivery of services) among others. Digitisation brings transparency into the system and thus curtails corruption. It has helped in alleviating social barriers. It is also a very efficient technique, since it reduces paperwork and thus saves time and manpower by a substantial amount.

Digital India is an enterprise for India's transformation on a scale, which is perhaps unmatched in human history.

Kankana Ganguly Economics Honours (2<sup>nd</sup> Year)

## **Digital India Today**

Three important elements of digital India are like creation of digital infrastructure, digital literacy and delivering services digitally all over the country.

In the digital India there would be easy digitalization of data which will help in making things much more efficient and fast in the future. It will reduce paper work, save man power and save time as well. This project will take a speed by tying the knot between government and private sectors. Huge number of villages interconnected with high speed network will really undergo a huge change from backward regions to complete digitally equipped areas. All the cities, towns and villages in India will get more tech savvy.

Digital infrastructure all through the country is like a utility to the Indian people as it will make available high speed internet delivering all the government services with ease and fast. It will provide lifelong, unique, online and authenticable digital identity to the citizens. It will make easy access to any online services like handling bank account, financial management, safe and secure cyber-space, education, distance learning, etc. High demand of good governance and online services will make available all the services in real time through digitalization. Digitally transformed services will also promote people for doing online business by making financial transactions easy, electronic and cashless. Digital empowerment of Indian people will really make possible of digital literacy through universally accessible digital resources. It will enable people to submit required documents or certificates online and not physically in the schools, colleges, offices or any organization.

Digitalization was the need to be implemented in India for bright future and grow more than any other developed country.

Educational technology is a study and ethical practice for facilitating learning and improving performance. Technology in education is just an additional opportunity to achieve education, you haven't enough time or opportunities to do it another if way. It can be defined as the use of different types of technologies in the learning experience which can result in the positive changes of pedagogy and teaching methods all over the world. Everyone can see the benefits that educational technology, and here are some of those mentioned below:

Access to information many years ago we couldn't imagine that we can get to know new information without going out of the house. Mothers examined new recipes from the book that they borrow in the libraries. Fathers bought newspapers to learn the updated information from business, economy and society. Students all evenings spent in the libraries to write the report, project or academic paper. Today information is easily accessed thanks to the internet. Meanwhile, online courses are accessible to the students who are unable to attend traditional educational buildings because of health or other complications. It is a convenient way to study.

Help in protecting the environment there are thousands of schools in every country. And it is a compulsory institution in every distant village. Now could you imagine how billions of paper we use to publish new books and copy books? Due to technology in education, we are not to

buy all these books. Actually, there now schools that were switched to the use designing computers for their lessons and libraries. It saves money and time when used thoughtfully.

Increase the popularity of distance learning with development of such inventions like the internet, the popularity with educational technology is growing every day. Nowadays it is one of the most preferred methods of learning. Traditional lessons have been supplemented by virtual ones. Online classes include transferring files, chat rooms and even board of progress to follow the students' success. Another benefit is that students can maintain a flexible schedule that is convenient for them (anytime, anywhere learning). It helps to combine distance education and work.

There are various ways of improving teaching efficiency with technology in education. Thanks to the technology they have more than one way to keep an eye on the student's progress. Moreover audio-visual presentation, wide-screen televisions, projectors can be used for improving the delivery of instruction to actually improve learning and increasing the comprehension level among the students.

Technology makes education enjoyable. We all know how difficult to engage the children in learning. However they enjoy the process when the instructor uses white board or touch screen technology in order to make classes more interactive and interesting. In that way it's easy to attract the kid's attention. By the way, the involving technology in the educational process makes education more enjoyable both for the instructors and the learners. We shouldn't underestimate the possibilities of educational technology in our modern society. Nowadays virtual classes are preferred by people all over the world. This form of education is really enjoyed by children, and many students have recently graduated from virtual High Schools.

Madhurima Ghosh Education Honours, (3rd year)

### A Simple Difference

To think of an India where the streets, or the public transport, is safe for women at any time of the day might be a scenario that is barely imaginable for any one of us. Likely, for me it is difficult to think of travelling to the next block in my neighborhood, or even the next house, by myself, once it is dark outside.

While putting together ways in which to combat the problem of safety provided to women, there are quite many innovative means by which technology can turn the situation around.

Technology has changed all our lives in many ways. The process of many-a-chores has fastened and once one gets used to gadgets of any kind, getting rid of the habit of having it is a difficult task.

A little peek into my image of the life of a young, office-going girl in the 'digital' India would be something like this. The girl, Prerna, steps out of her office in Park Circus at 10 pm. She is an outstation resident of Kolkata, living with a couple of roommates in a house on a by lane of Dum Dum road. The journey takes roughly an hour by direct transport but it is difficult to get to avail one at that hour of the day, especially one with decent fellow passengers in the present day scenario in 2015.

Her parents, staying by themselves in a small town in Bihar, are worried about their girl living in a metropolitan city of the country. Fortunately, to their rescue, comes the latest application available on a Smartphone-The Parent. Being a citizen of the digital India, they have access to a Smartphone and so does Prerna. The father and daughter pair connect on the Parent application using their mobile internet connection and the following facilities are available to them all at once; Prerna's father is now able to view a map of Kolkata and the location at which Prerna is currently present depicted by a red symbol; in case of an emergency, the SOS console is present on both their application pages. The father may touch the SOS icon the moment he feels something is not right and the message is sent out to the nearest police stations and women's security agencies that immediately come and look into the situation. Prerna herself can access the feature too.

Also, when Prerna is unable to find herself any mode of transport, she can, at one go, call for a quick-cab to drop her home safely.

More of such orchestrated moves could improve the safety standards of the country a great deal. Such is the role, I believe, and that the digital India programme can play in the struggle towards attaining women empowerment and other such social motives.

The programme has a strong focus on e-Governance as the ruling government believes that "IT is a great enabler for empowerment, equity and efficiency". The major areas that the programme includes are broadband access in villages, participative governance, digital learning, tele-medicine and mobile healthcare, open source and open standard, and E-Bhasha among others. Though the ideas are innovative and can make life a tad-bit easier for all, the mechanism of transforming the plan into reality must be promising enough to be able to achieve its objectives.

#### Manasi Agarwal Economics Honours (3<sup>rd</sup> year)

#### Quiz Time

- 1. What does DNS refer to?
- 2. JAVA was originally invented by?
- 3. What is the unit of speed used for a supercomputer?
- 4. What was the first mechanical computer designed by Charles Babbage called?
- 5. C is \_\_\_\_\_.
- 6. Web pages are written using \_\_\_\_\_.
- 7. In VLC media player "L" stands for \_\_\_\_\_\_.
- 8. What is the first operating system of Apple?
- 9. Who is considered to be The Father of Artificial Intelligence?
- 10. Which device converts digital signals to analog signals?
- 11. A terabyte comprises of \_\_\_\_\_ gigabytes.

Anantika Tehlani Psychology Honours (2<sup>nd</sup> Year)

#### Did you know?

- 1. Only about 10% of the world's currency is physical money, the rest only exists on computers.
- 2. Approximately 70% of virus writers are said to work under contract for organized crime syndicates.
- 3. HP, Microsoft and Apple have one very interesting thing in common they were all started in a garage.
- 4. If there was a computer as powerful as the human brain, it would be able to do 38 thousand trillion operations per second and hold more than 3580 terabytes of memory.
- 5. The password for the computer controls of nuclear tipped missiles of the U.S was 00000000 for eight years.
- 6. More than 80% of the emails sent daily are spams.
- 7. The house where Bill Gates lives was designed using a Macintosh computer.
- 8. An average person normally blinks 20 times a minute, but when using a computer he/she blinks only 7 times a minute.
- 9. There are more than 5000 new computer viruses which are released every month.
- 10. Doug Engelbart invented the first computer mouse in around 1964 which was made of wood.

Anantika Tehlani Psychology Honours (2<sup>nd</sup> Year)

#### **Answers to Quiz Time**

- 1. Digital Network Service
- 2. Sun.
- 3. GELOPS.
- 4. Analytical Engine.
- 5. A third generation high level language.
- 6. HTML.
- 7. LAN.
- 8. Mac.
- 9. John McCarthy.
- 10. A modem.
- 11. 1024

## **Acknowledgements**

## **Editor**

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# **Cover designed by**

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