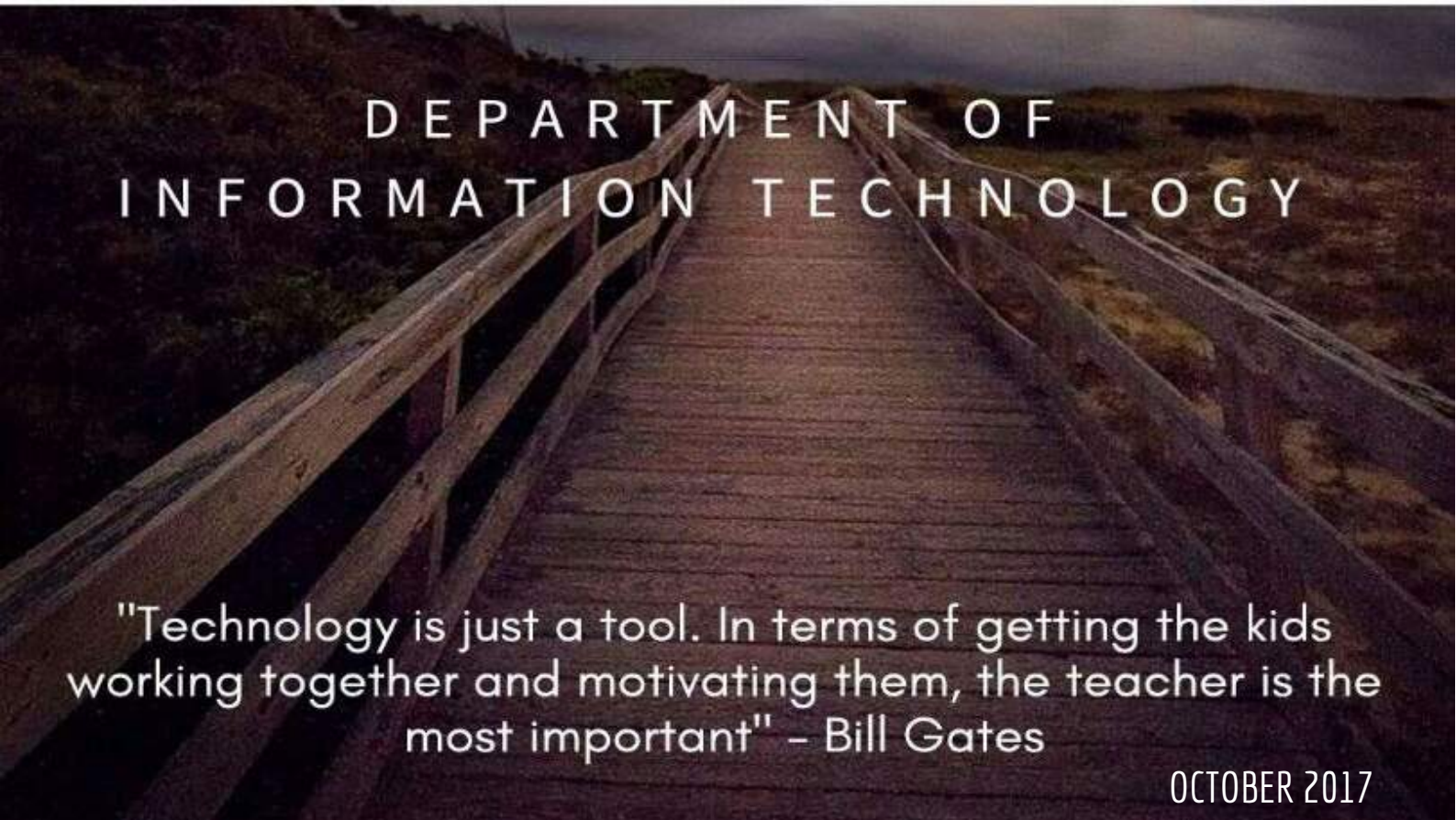
IDEATE. INNOVATE. INSPIRE.



INDEX

DEPARTMENT OF INFORMATION TECHNOLOGY

ABOUT THE DEPARTMENT

The department of Information Technology, started its journey in the year 2002 and is committed to deliver the program with rigor and with active industry participation. The Department has 120 seats intake at first year and 24 seats as lateral entry at 2nd year for engineering diploma students. The department believes in student centric approach. Its dedicated team of faculty members inculcate relevant knowledge, skills and attitude in students to become successful professionals. The U.G. programme is accredited by National Board of Accreditation (NBA), New Delhi for three years w.e.f. 16.09.2011. UG Programme has been re-accredited for 3 years by NBA w.e.f 1st July 2016. Also the programme is permanently affiliated with UOM since AY 2015-16 onwards.

THAKUR TRUSTS
tcet
THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY
Estd. 2001

VISION

"The department of IT will strive to be at the top position among the renowned providers of IT education"

MISSION

The IT department is committed to enrich students by rigorously implementing quality education with a focus to make them industry ready, while imbibing in them professional ethics and social values to become responsible citizens

BRIGHT tcet IT ENGINEERS

PROGRAM OUTCOMES

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 the limitations.

PROGRAM OUTCOMES

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 context 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 practice.

PO 9: INDIVIDUAL AND TEAM WORK: Function effectively as an individual, and as a member or 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.

PROGRAM OUTCOMES

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 principles and apply these to one's own work, as a member and leader in a team, to manage projects in multidisciplinary environments.

FROM THE DEAN'S OFFICE

Dr. Kamal Shah
Dean,
R&D Cell

In presenting the 8th edition of EZINE, "The Students' Magazine", I would like to acknowledge and commend the efforts of each individual - student and faculty alike - in making it possible to put forth such an impeccable magazine.

This year, like past year and the 5 years before it, EZINE serves as a platform for students and the faculty to showcase their achievements as well as the activities that have been held in our institute. Moreover, it is a platform for individuals to express themselves and their knowledge in the best way possible. The topics covered in the magazine not only cover the various domains being studied but serve as a beacon of inspiration for students to aim for greater heights.

Thus, through EZINE, we have tried to inculcate the value of lifelong learning and to thus make our own little conntribution towards the betterment of our society.

FROM THE HEAD OF THE DEPARTMENT

Dr. Rajesh Bansode
Professor and HOD-IT

The Department of Information Technology at UG programme was established in 2001 & PG programme in 2011. Since its inception, the tradition of teaching with passion and dedication,
research excellence and active participation in research developmental activities continues to shape the career of students. Graduates and Postgraduates of the Department demonstrated pioneering role in professional fields as well as in academics and research.

The Department has state-of- the-art infrastructure and computing equipment supported by high speed Ethernet and wireless networks. The department has professional body of ACM Chapter.

The department has a thriving research environment with active research domains in the areas of Information Communication Technology, Machine learning & AI, Database technology, Web Technology & E-Commerce, Software Programming & Development. We have a vibrant body of research students. The Department is engaged in many significant research projects sponsored by the government and industry engaged in high end research activities.

Our faculty members aim at delivering top class education blending their rich research experience with classroom teaching. Since its commencement, the primary objective of the department has been to impart quality education, training and research at the undergraduate & postgraduate in various areas of Information Technology with broad emphasis on design aspects of Information systems.

The UG curriculum provides strong base to the students in Information Technology and provides exposure to the latest technologies. PG programme leads the students to work on interesting research problems. The research activity of the department includes fundamental research, sponsored and consultancy projects, and is carried out with active participation of the students & faculty.

From The

Faculty In Charge

"We don't grow when things are easy. We grow when we face challenges."

Being the Faculty In charge of the IT department magazine "Ezine" , it gives me an immense pleasure to bring to you eighth issue. Information Technology itself a very vast term to explain. Here we have divided this term into five domains namely Software Programming, Machine Learning, Database Technology, Web Technology and ICT. In Each Domain there is a equal opportunities to do research.

Mrs.Hetal Amrutia
Assistant Professor
IT Department

In this Latest issue we have mainly focused on Ubiquitous computing, IOT and Database. This edition is balanced combination of articles, interviews and glimpse of different activities.
"I think it's very important to have a feedback loop, where you are constantly thinking about what you have done and how you could be doing it better. " In this issue we have included testimonials from our alumni, parents and current students to understand their view.
I would like to thank all my editorial team members for helping me pull this through. I express my considerable appreciation to all the authors of the articles in this magazine.
These contributions have required a generous amount of time and effort. It is this willingness to share knowledge, concerns and special insights with fellow beings that has made this magazine possible. "Team Ezine" always believe in betterment and for that we required your valuable suggestions in terms of feedback. You can write us on ezineit@gmail.com.

Best Wishes to All.

From The Editor's Desk

"The ones who are crazy enough to think they can change the world are the ones who do."

-Steve Jobs

We, as humans, possess numerous characteristics that differentiate us from the other occupants of our planet. One of them is that we seldom choose to define ourselves. We "are" what our compatriots perceive us to be. None of us stand as an exception to this humanly rule. As the world moves forward with several new technologies being discovered each day, we, too, move forward with it.

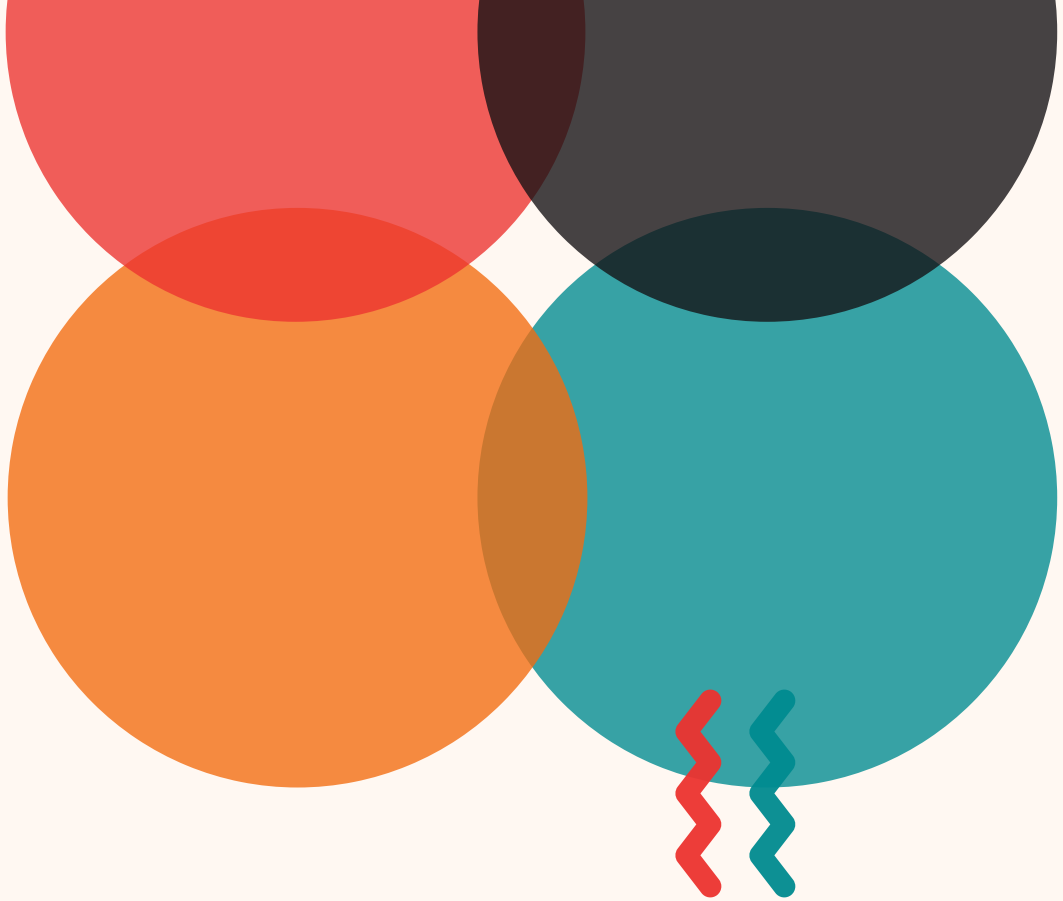
Our aim was to cover the domains of Ubiquitous Computing, Information and Communication Technology along with Database Technology through this edition of Ezine and we, under the guidance of our esteemed faculty, have done our best to do justice to this goal. Ezine, however, is more than just a magazine. It is an idea. The idea is to put forth a platform for individuals to share their views and ideas. At Ezine, it has always been our topmost priority to lend voice to many young and adolescent technologies that will pave the way for a better, brighter world. At the same time, keeping in mind that development is a multi faceted idea, we have tried to showcase the achievements and accolades that our students and teachers have been felicitated with.

From The Editor's Desk

It has been a great privilege and a personal pleasure to be associated with the IT departmental magazine. We have endeavoured to ensure that we cover all aspects of the events that go on at the IT department. I would like to thank all the students, our teachers and the alumni of our college in their cooperation and help in making this magazine possible.

Thus, we, the publication team, along with our fellow students and teachers, have compiled for you, this perspicacious attempt at understanding how the various domains of information technology and the progress in these shape our lives right down to the roots. We hope this attempt of ours has been successful in touching the minds of each and every one of you who goes on to read the magazine. And so, it is my great privilege to present to you, Ezine – „The Students" magazine", a culmination of different ideas, personalities and people – a story in itself.

ADVAIT MADUSKAR,
EDITOR-IN-CHIEF,
EZINE 2017-18



STUDENT ARTICLES

AN INTRODUCTION TO ARTIFICIAL INTELLIGENCE

STUDENT

For those who don't know what this is,let me explain it in a simple language. Artificial Intelligence is a way of making a computer, a computer-controlled robot, or a software thinks intelligently, in a similar manner the intelligent humans think. Artificial intelligence is a science and technology based on disciplines such as Computer Science, Biology, Psychology, Linguistics, Mathematics, and Engineering.

A major thrust of AI is in the development of computer functions associated with human intelligence, such as reasoning, learning, and problem-solving. Facebook CEO,Mark Zuckerberg is affirmative on AI as he thinks that it will improve the basic research systems across different fields- from diagnosing diseases to improving self-driving cars and showing us better content in our news feed to deliver more relevant search results.Zuckerberg has his own personal assistant bot-JARVIS.It can talk on his phone and computer, understand text messages,control his home,learn his tastes and patterns,learn new words and concepts,and even entertain his daughter Max .On the flip side, the founder of SpaceX- Elon Musk, is scared to embrace AI.He strongly feels that the term "artificial intelligence" has become so overused that the term is almost meaningless. Like "algorithm" before it, technologists, businesspeople, and journalists think about the idea like a magic wand that turns ordinary computer software and devices into world-saving (or world-ending) marvels. And given AI's long history of wonder and dread in science fiction, people are primed to expect it to usher in utopia or dystopia. Many technocrats believe that Musk is selling fear. AI has now become an abstract talking point in the orbit of computer science and science fiction, too.

In this age when everything seems intangible, the idea of robots helping us in day to day life or giving us real time suggestions on almost every subject,doesn't seem like a bad idea. But the belief in this will only start as a machine, and not as a concept.

COMPOSED BY KHUSHI DAVE

FE IT A

VIRTUAL REALITY

STUDENT

Virtual Reality is a type of emulation of reality which basically means ‘near-reality’. It is an amazing way to travel by just using the technology by reducing the cost of movements and personal action. Virtual Reality is remarkably impressive technology to provide best reality experience and is a Human Centric Tech.

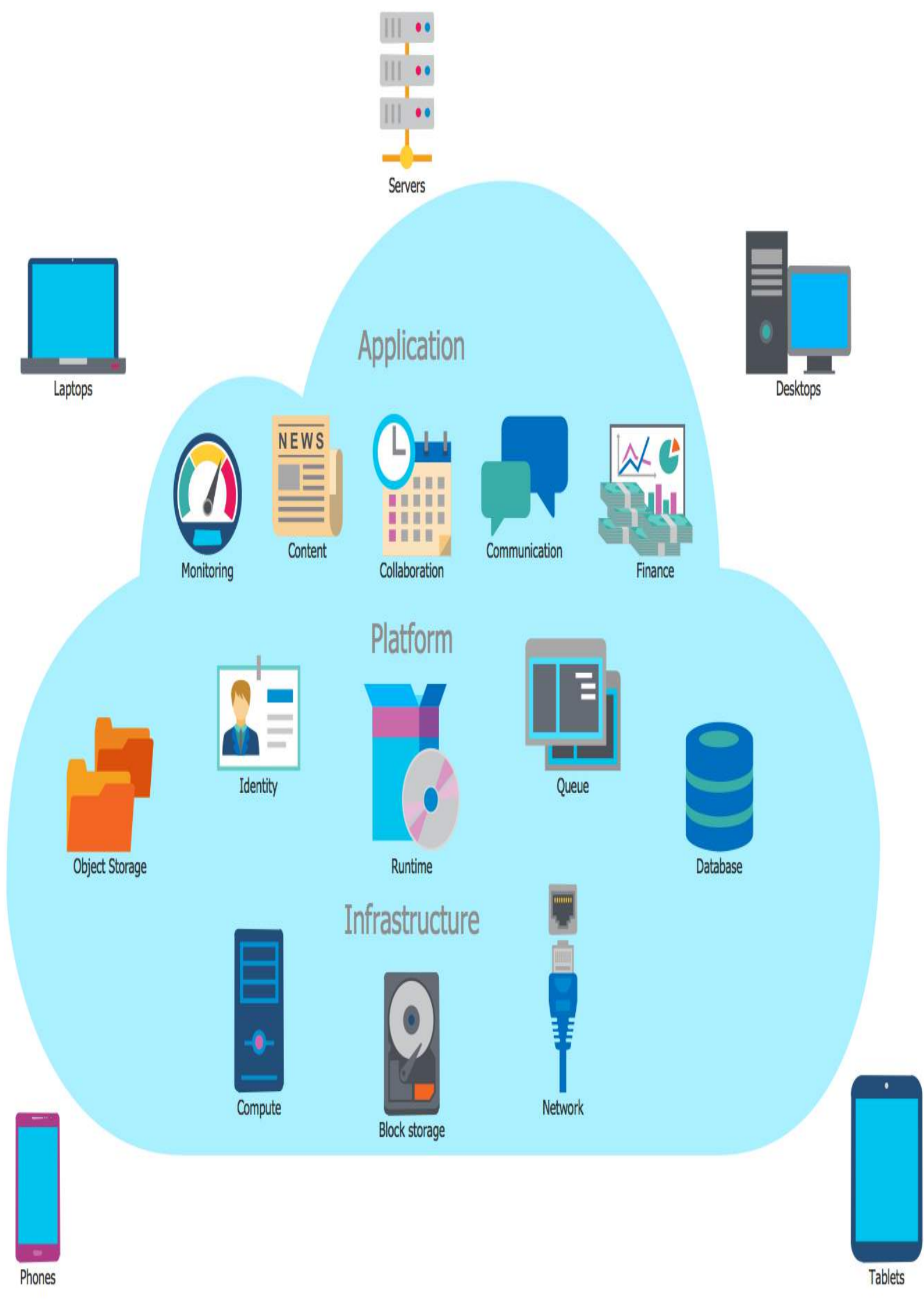
It had all begun in early 1950’s by Morton Heilig’s Sensorama. Tom Zimmerman & Jaron Lanier marketed a range of virtual reality gear in the 1990’s. This technology is still emerging and has gained popularity in recent years. Oculus Rift, HTC and Valve’s Vive, Sony’s PlayStation VR, Samsung’s Gear VR, and Google's Daydream platform are the most fascinating VR Systems that completely immerses you in virtual world. There are a lot of promising headsets across a lot of different price and power spectrums. By making the use of a headset and a wireless controller, we can interact with VR experiences. Since our brains and senses are evolved to provide synchronised experience, we can divide enjoyable virtual reality experiences from the unpleasant ones.

In 2016, there were more than 250 companies developing the VR technology including Facebook. The virtual reality technology uses are in various fields like video games, cinema and entertainment, Social science and psychology, education and training, military, space, fine arts, engineering, etc.

VR technology has consequences like nausea, stress & other emotional effect but they are been reduced day-by-day by the advancement of this technology. It needs to be safe to enjoy the virtual reality.

Development into VR is very important to discuss because of the astonishing increase in technology.

COMPOSED BY
PRIYANKA SHARMA
FE IT-B


Servers
Laptops
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Collaboration
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Platform
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Object Storage
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Queue
Database
Infrastructure
Compute
Block storage
Network
Phones
Tablets

UBIQUITOUS COMPUTING

STUDENT

The computing for the new era is here! After surviving the previous eras, mainframe era and the personal computer era where the users were many to a single computer, here we are. The digitalization has increased to such an extent where computing is present everywhere. The term '"Ubiquitous" itself states the tendency to be present everywhere. We are inclining towards modernization, who would have thought the objects around us could be someday embedded with technology that is shaping the universe. Yeah, that's right! The concept of embedding the technology in objects to make them effectively communicative is going to be the new trend. The idea that almost any device, from clothing to tools to appliances to coffee mugs can be lodged with chips to connect the device to an infinite network. The goal is to create an environment in such a manner where the connectivity of the devices is unobtrusive and always available for the open world. I know what pops up into your mind at the most, is ubiquitous computing same as the most talked, Artificial Intelligence?

In my opinion I'd give it a no. Artificial intelligence is something that puts people inside a computer generated three dimensional world whereas Ubiquitous Computing forces the computer to live out here in the world with the people. Hence ubiquitous computing sets a great testimonial to the world on how to integrate or rather consolidate the problem to a great conciseness.

The derivatives under ubiquitous computing can be categorized under Physical computing, Internet Of things and Haptic Computing. Well, how can we not speak of the originator? The person who came up with the idea of such a computing. The father of ubiquitous computing, Mark Weiser. He coined the phrase "ubiquitous computing" in the mid-90s. The most talked about buzz about the ubiquitous computing is the "Internet of Things". The word itself speaks a lot about it, Technology in everything around you. The true potential of Internet of things haven't been explored yet. But constant research on it is under proceeding.

Imagine, you leaving for work and you have no idea whether it's going to rain or not which makes you think that you should carry your umbrella, what if the umbrella does the work for you?

Yes, you heard it right, If the umbrella prompts you to whether carry it or not. I know this puzzles our mind whether it's even possible or not but guys it's 21st century. You driving back to home from strenuous day at work and don't remember whether the refrigerator is stocked up or not, What if the refrigerator does the job and tells you about the milk and the groceries in it, Won't that be cool?

The future isn't far enough, it's the perspective with which we look at it. Ubiquitous computing requires analysis of things. Which means new data and also new ways to stream them continuously. It's always a puny thought initially which grows big with hard work and perseverance added to it. This, not much explored world holds up a lot more potential than we can even think of yet. So keep exploring and innovating. It's the internet of things which sets it right.

Composed By

VINAY AGARWAL

SE IT-A


d Data

DATABASE AS A SERVICE IN CLOUD

STUDENT

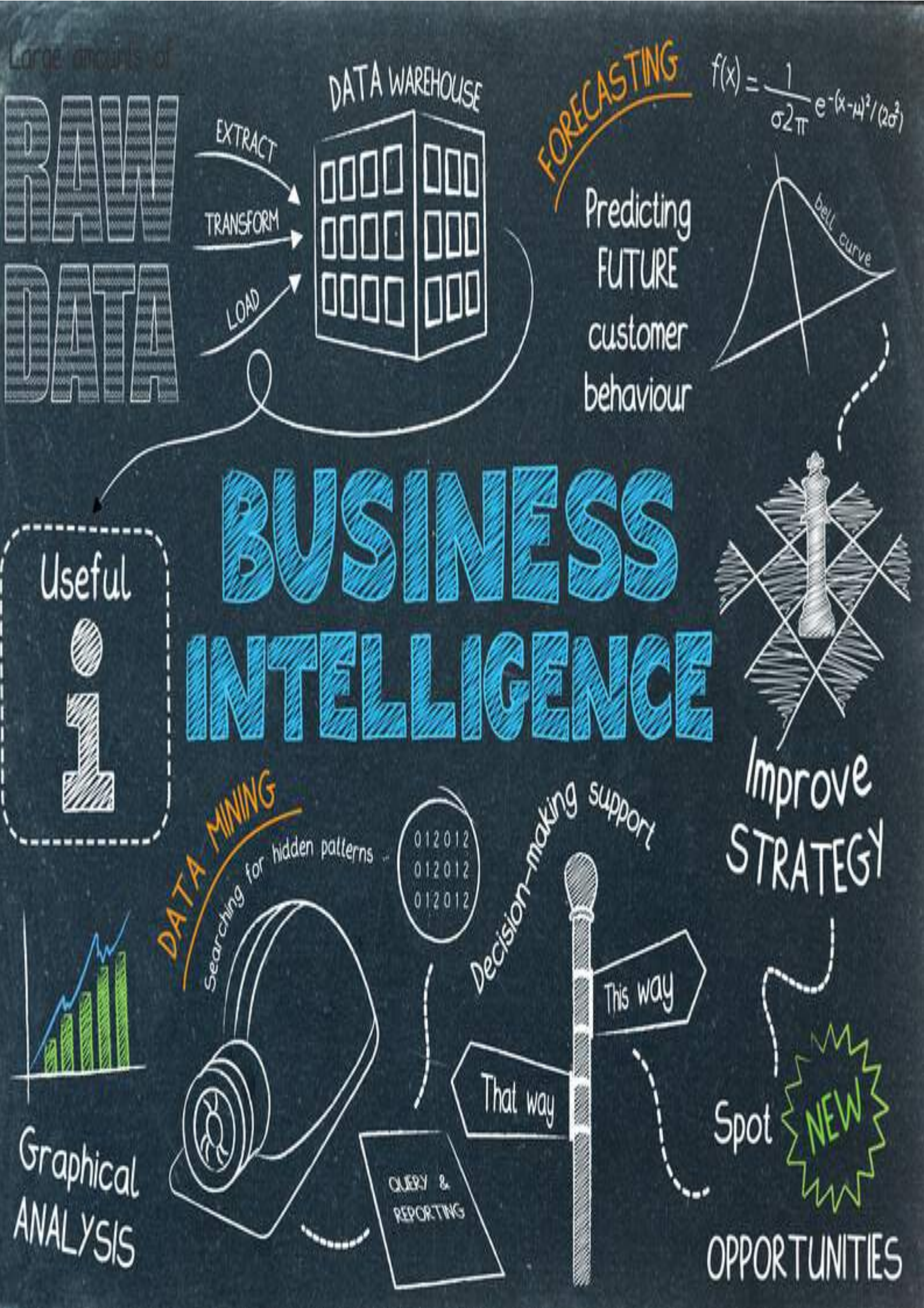
Cloud has gotten extremely complicated and crowded. There are more new 'as a service offerings' popping up than senseless reality TV shows. Yet there is one such service that has proven to be capable of standing out as an enterprise staple and is also an excellent platform for mind boggling developments in the IT industry – database as a service.

Cloud databases, also known as database as a service (DBaaS) can be SQL or no SQL, open source or relational and can also provide suitable environments for things like streaming data pipelines etc. It resides on a public, private, hybrid cloud computing infrastructure platform. Cloud databases also make data capabilities available online , whenever and wherever required. Various enterprises can also offer a DBaaS running for their internal customers in their respective data centers. Users can access either a small piece of the huge cake(Schema), or the whole of it(any instance of the database).Different service levels are usually available. In the traditional DBaaS arrangement, the provider maintains the physical infrastructure and database, leaving the users to handle the contents and operation. An additional feature includes users setting up their own managed arrangements, wherein the provider ends up handling the database maintenance and management.

According to an estimate, DBaaS has the capacity of growing upto 14 billion dollars untill the year 2019. Inspite of being in the relatively new category, it has managed to grasp ample attention. Two of its biggest advantages are flexible scaling and the ability to offload excruciating database related tasks to cloud vendors.

Having said that, Making a move towards cloud doesn't mean a change in the organizational or professional priorities, it is simply a more efficient way for groups to fulfill their goals.

COMPOSED BY
PRIYANKA IYER
SE IT-A


Large amounts of
RAW DATA
EXTRACT
TRANSFORM
LOAD
DATA WAREHOUSE
FORECASTING
$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-(x-\mu)^2/(2\sigma^2)}$
Predicting FUTURE customer behaviour
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BUSINESS INTELLIGENCE
Useful
Improve STRATEGY
DATA-MINING
Searching for hidden patterns ...
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Decision-making support
This way
That way
Graphical ANALYSIS
QUERY & REPORTING
Spot NEW OPPORTUNITIES

THE NEXT BIG THING

THE INEVITABLE CONVERGENCE OF BUSINESS ANALYTICS AND UBIQUITOUS COMPUTING

STUDENT

In a world where only getting ahead matters, the field of business is dominated by cold, hard numbers and visible results mapped out as statistics. Move forward or be left behind is the new mantra and the only way to move ahead in this jungle of a world is to have the biggest numbers in the game.

Let us start out by asking a simple question- What exactly is Business Analytics? You Google this and the answer you get is far from self-explanatory. It defines Business Analytics as –"The practice of iterative, methodical exploration of an organization's data, with an emphasis on statistical analysis." To put it into words that you and I understand, business analysis is a field which allows organisations to make business decisions, to develop strategies and to implement projects based on the analysis of the data that is available to them. Sounds important, doesn't it?

Conventionally, organisations employ multiple business analysts to do the job for them. A job description for a typical BA is "Developing technical solutions to business problems, or to advance a company's sales efforts, begins with defining, analyzing and documenting requirements." In a competitive environment where big numbers are everything and stepping up is the name of the game, the job of a BA becomes harder and harder. As numbers get larger and data volumes inflate exponentially, errors begin to creep in. And nobody's to blame for it. After all, to err is human.

Here comes in technology to save the day. As the volume of information piles up, crossing the boundaries of human comprehension, a little somebody called 'Big Data' comes into the picture. Before we delve further into the topic at hand, let us first understand the basic ideas behind the two champions of ubiquitous computing- Artificial Intelligence and Big Data.

Artificial Intelligence is a term which is frequently tossed around in modern times. However, its traces its roots way back to the 70's. Very simply put, AI is intelligence exhibited by machines. It consists of a broad spectrum that includes Robotics, Natural Language Processing, Expert Systems, Machine Learning, etc. Meanwhile, Big Data is a part of computing that is associated with extremely large data sets that can be analysed computationally to reveal patterns, trends and associations. Merge the two and you get a statistician's paradise.

Imagine a global business sphere where a computer reads all the patterns and teaches itself to predict the sequences that follows by associating each event with the probability of it happening. When it comes to performing such a task on a scale where big data comes into a picture is beyond human capability. Hence, it is here that we get to see a fraction of the power exhibited by ubiquitous computing. An intelligent computer that can teach itself to process a monumentally large volume of data to detect and predict patterns and set organisational strategies is something that even Silicon Valley big shots would kill to get their hands on. We're already stepping into a world where business analytics is converging with these technologies and the focal point of all this is Business Intelligence.

The MIT Sloan Review says- "Big Data is moving to a new stage of maturity- One that promises even greater business impact and industry disruption over the course of the coming decade. As big data initiatives mature, organizations are now combining the agility of big data processes with the scale of Artificial Intelligence capabilities to accelerate the delivery of business value."

And so I conclude, saying that we have come far and long, still, there is a far, far way to go. And the paths we choose to walk on are those that decide where exactly we reach.

Composed By

Advait Maduskar

SE IT-A

DATABASE TECHNOLOGY

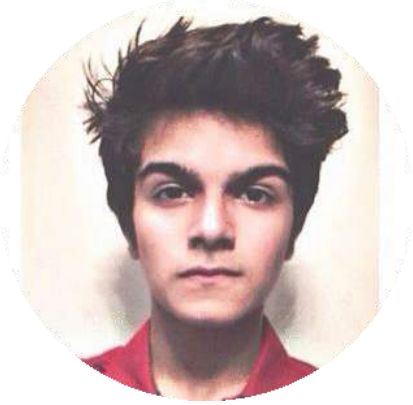
STUDENT

1) Overview:
Database is a structured approach towards proper management of data which is accessible in various ways. Data is organized in rows, columns, and tabular form and is indexed to make it easier to update, expand and delete the desired data easily.
The first revolution in database technology was driven by the emergence of the electronic computer.
Beginning with hierarchical and network databases, now Database Technology(DBT) exists in the form of SQL, NoSQL and cloud database type which have been further explained.
1) TYPES OF DATABASE:
1: Relational database-
Invented by E.F.Codd at IBM in the year of 1970, it is a tabular form of database, made up of a set of tables with data which fits into predefined category.
2: Distributed database-
In this type of database system, data is stored in multiple physical locations. The processing in this kind
of DB is dispersed and replicated among different points of the network.
3: Cloud database-
A cloud database is one which has been optimized or built for a virtualized environment. There are
three kinds of cloud databases namely hybrid, public and private.
4: Graph database-
A graph type of database is a type of NoSQL database that uses graph theory to store map and query relationships.

2) USES OF DBT:
Time is a very valuable factor when it comes to gaining insight and acting appropriately to respond to
data. DBT is applicable in innumerous fields namely-
1. Cultural and scientific information
2. Tourism
3. Banking
4. Educational institutes
5. Natural resource management
6. Customer Management in business
7. Inventory tracking

3) FUTURE OF DBT:
In short, the future of DBT is bright. In brief, there is no future without database management,
as it is next to impossible to keep track of the data of a population of trillions.

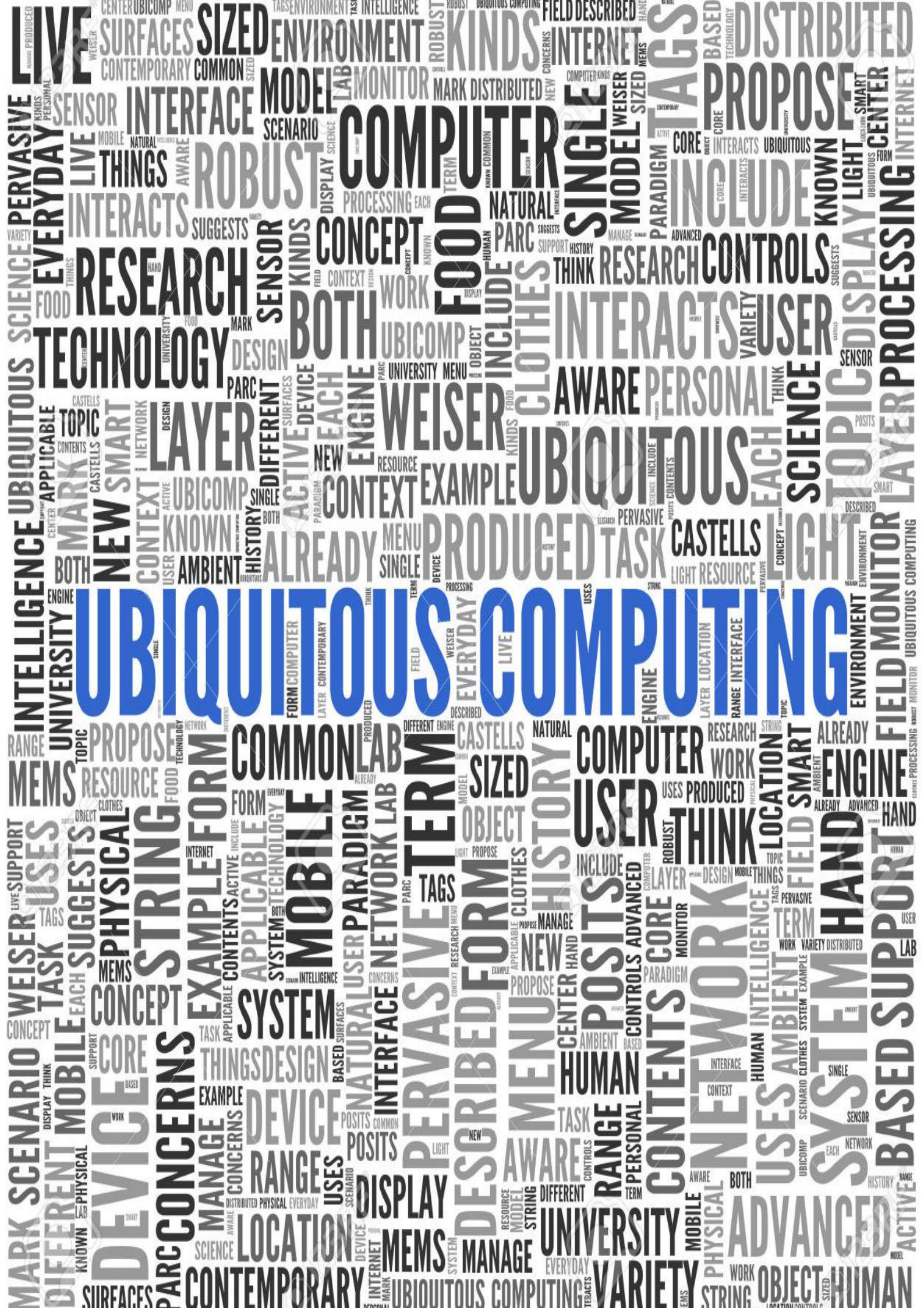
Database servers
have helped us since the 1960's to store infinite data. Specifically, RDBMS is the show stopper
when it comes to storage. Whereas for now, the latest Database management system used is
SQL 2017. Oracle's MySQL, IBM's BD2 and Microsoft's Access are types of relational databases.
The future is upon us with the NoSQL and NewSQL gaining ground. With the large amounts of
data thse flexible and powerful standards are ready to win over traditional database languages.



Composed By

SAURAV RATHOD

SE IT-B


UBIQUITOUS COMPUTING
LIVE
RESEARCH
TECHNOLOGY
INTERACTS
COMPUTER
ROBUST
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SENSOR
EVERYDAY
PERVASIVE
SCIENCE
UBIQUITOUS
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PROCESSING
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MANAGE
MEMS
UBIQUITOUS COMPUTING

THE AGE OF MODERN COMPUTING

STUDENT

UBIQUITOUS COMPUTING is about embedding technology/computing into the physical environment , making it available to human beings at anytime in a natural way, this means that allows human beings to be in continuous interaction with information and communication systems by using real world objects, making computers integrated into everyday objects indicating 'EVERYTHING ALWAYS EVERYWHERE'. Ubiquitous computing is held by some to be the Third Wave of Computing. It will be many computers per person. It refers to the expanding assimilation of ICT into society's lives and environments, made possible by the growing availability of microprocessors with inbuilt communication facilities.

Ubiquitous Computing is roughly the opposite of Virtual Reality. Where Virtual Reality puts people inside a computer generated world, ubiquitous computing forces the computer to live out there in the world with people. We can see this through the use of our smart phones as we perform day-to -day tasks on them such as taking notes, checking weather and even work related to business. Mobile devices to me are the epitome of ubiquitous computing as they are wireless, mobile and connects their users to the world around them and the people within it. This pertains to the idea of embodied virtuality in a sense that our computers are connecting us to everyone and everything. They are constantly existing not only amongst us, but within us.

The characteristics of Ubiquitous Computing includes Miniaturization, Embedding, Networking, Ubiquity, Lifelike(Less noticeable) and Context Awareness. Networking, objects are connected to the internet or other kinds of networks and that provide required information to work as expected. Context Awareness, components collect information in order to adjust their behavior to their users or environments , this allows them to provide accurate information and better user experiences.

people. We can see this through the use of our smart phones as we perform day-to -day tasks on them such as taking notes, checking weather and even work related to business. Mobile devices to me are the epitome of ubiquitous computing as they are wireless, mobile and connects their users to the world around them and the people within it. This pertains to the idea of embodied virtuality in a sense that our computers are connecting us to everyone and everything. They are constantly existing not only amongst us, but within us.

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Composed By

VIDHI GUPTA

SE IT-B

Things that made Steve Jobs a great CEO

STUDENT

These are the things that made Jobs a great CEO:

1. A Vision.

Jobs had always been a visionary first and then CEO. He had the vision of delivering cool to the people and make them feel more and do more by themselves. That vision was his fuel. That's what drove him forward. It was his vision that made him see things that others had missed.

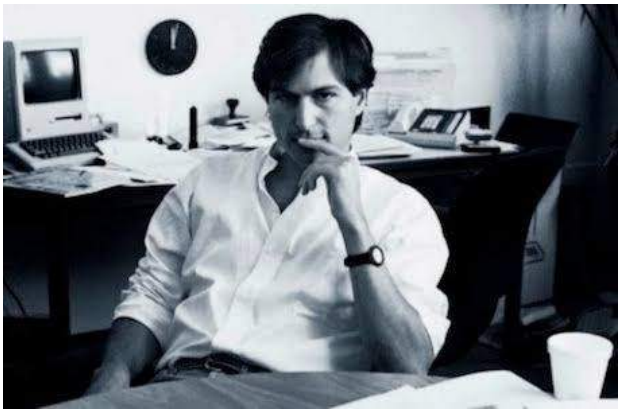
2. The Ability to Learn.

Jobs always had the desire to learn about things that got his interest on the go. For that, he learned to change the three basic things one needs to in order to learn the true nature, the true design of everything. Those three things were understanding, attitude and behaviour. Jobs knew this very well that design is all about how it works rather than about how it looks.
3. The Ability to Lead.

As we all know it, Jobs always wanted to be important and that's what drove him forward to learn the principles of leadership. Jobs had learned to acquire the ability to convince almost anyone.

4. The Ability to Recruit.

Jobs found this part to be the most challenging thing to do. In his early days, he wasn't that good with this skill and he faced many difficulties because of that and even got fired from his own company. But that didn't stop him there. It only took him forward to start two more successful companies but this time, in a wiser and better way.



5. The Ability to Improvise.

The ability to improvise and to learn go hand in hand. Steve knew it well that mistakes are something that no one should be afraid of. He knew that mistakes only make a man more experienced. And the better the experience, the better is the judgment.

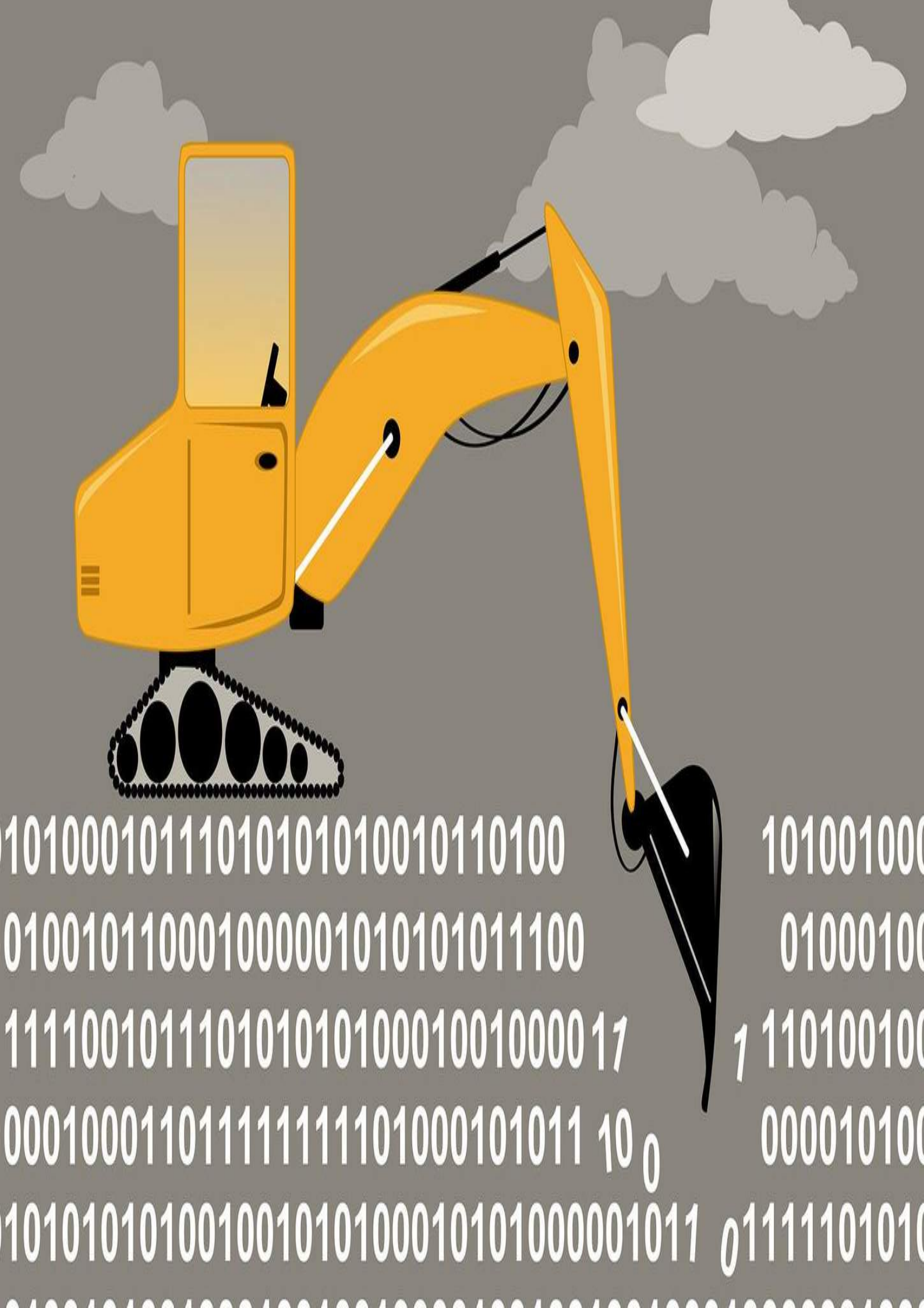
6. The Ability to Manage.

Steve always kept on learning to be a good manager. He always kept track of time and the market. He always knew what the people needed and he was always after delivering it to them. For him, details mattered a lot and it was worth waiting to get them right. And he would always deliver the thing that the people actually wanted even if it cost more than the other products in the market.

Composed By

Vedant Shrivastava

TE IT-B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PRODUCT BASED REVIEW SYSTEM USING DATA MINING

STUDENT

points of customer feedback on the products they sell. Ironically this has resulted in creating confusion among the shoppers as they are simply an inundating amount of reviews available. The task of manually combing through this vast data dump is nigh impossible for humans.

Our project addresses this problem by training a classifier using Naïve Bayes classification algorithm. Data used to train this classifier is consolidated from three different sources – Amazon, Flipkart and ShopClues so that the users have reviews from varying sources at the same location. The classifier segregates the reviews as positive, negative and neutral and gives the final report as a graphical representation of the processed data.

So,our project contains 4 phases.first phase is a data collection in which data is collected from various sources like Amazon Product Advertising API, Shopclues Open API,etc . and data sets is prepared.second phase contain modelling where model is trained using naive bayes.Third phase is the implementation of GUI where user can compare reviews of a different products & the last phase is deployement where integration of GUI and Classifier model is done.

Features of our project is Try to achieve feature specific reviews,Try to achieve Keyword specific review,Classify and show who is better service provider and main feature is text mining which will be used to enhance the experience of the user in online shopping.Technology will be used is python,AWS cloud & classification model.

COMPOSED BY
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COMMUNICATION TECHNOLOGY

STUDENT

The communication is a means to transfer data or information to other. The communication technology nowadays has transmission of information in digital form. Communication technologies have become the foundation for the information era. The communication has deep influences in business and society through an exchange of information and technology used included the internet, instant messaging, MMS, e-mail, telephone, audio, video based means. Communication which is a strong support pillar for us needs constant updates and rapid adoption. The communication technologies expert design and maintain technical systems of communication as per needs or demands with the specific condition.

Communication technologies used on most mobile, laptops, computer and other such devices. Communication technologies moved from wired (cables) to wireless (signal or digital).

Communication technologies have the transmitter, receiver, buffer, inter-mediator, encryption, and decryption which used to send and receive the digital information which is encrypted for security reasons. But still, there are variables present which causes the digital signal to deliver half or error full information. The variable can be natural disasters, interference while sending, noise mixture in digital information. Communication technologies need encryption and decryption by cipher for confidentiality and integrity of information and sender.

The technologies are man-made so it can also be hacked. So to deal with this cryptography is used with essential software is installed too. The software and hardware are frameworks for a firm and efficient use of communication technologies. The today's world is in rapid growth example developing countries which led ICT to become the keystone of everyday life. The information communication technologies play a role in facilitating accelerated pluralism in new social movements today.

Today's communication technologies are still in the growth period and the rapid sharing, accessing and manipulation of data in the world is continuously going on as an example 4G is presently available to use and still public is waiting for 5G. Communication technologies have become a firm frame which may lead the world in a better and prosperous direction.

Composed By

AMIT D. SINGH

BE IT-B

DECIDE.

COMMIT.

SUCCEED.

TOPPER'S TIPS - I

HARDWORK BEATS TALENT WHEN TALENT FAILS TO WORK HARD

STUDENT

It is said "The harder you work for something the greater you'll feel when you finally achieve it."
Everyone feels great after any achievement but for that, hardwork plays an important role. For me it was not that easy to score such good marks in academics. For my preparations, I did not made any schedule but I kept my timings flexible enough. I also involved myself in other activities rather than only studies.
Regular lectures were very helpful for me. I always note down all the lectures very carefully for the further use. These notes helps me during my examination a lot. During term tests I refer these notes as well as Internet to make my answers up to the point. While writing answer to any question, I made sure that the content that I'm providing is best and according to the allotted marks. Doing so, it made me easier in understanding about how the perfect answers are written.

1. Refer 5 year previous question papers.
2. Note down all the frequently asked questions.
3. Make my own answers for all those questions
4. Referred the video lectures

After all these steps I start studying each subject chapter by chapter and note down all the bullet points of each chapter. Once I'm done, I look at those bullet points and try to remember the studied logic. Still I face little difficulties in some of the subjects. To overcome that, I referred the video lectures on YouTube. To be honest internet has solved all my doubts. I feel these are the best way of preparing myself for any examination. The most important thing is how do we put our answers in the answer sheets during examination. That will decide and will reflect our preparation. One more important aspect is how do we present our answer I.e presentation of our answers also matters a lot.
Scoring good is not difficult but preparing for it is. I'll end it by saying "Don't give up. Beginning is always the hardest".

COMPOSED BY
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TOPPER'S TIPS - II

DON'T WAIT FOR OPPORTUNITY. CREATE IT

STUDENT

Hey I am Akanksha Rakesh Jain from BE IT A scored 10 CGPA in Semester 6 and would be glad to share my experience so that it will be beneficial to all of you.

Maintaining the study momentum is a very personal thing. It is about the self-motivation and the drive that one have. Everyone has his or her share of distractions, but one has to know his or her priorities in life. I kept myself away from social media for the whole phase of my preparation. I had a simple phone without internet. I used to feel low at times, but never let that feeling to overpower me as what I wanted to achieve was over and above my mood and distractions.

Later I found making notes online very convenient as well as one can edit them anytime anywhere. You are also saved a lot of hassles of carrying the bulky ooks around.

I typically mixed online/computer reading with the text book reading as reading on computer alone can be very tiring for eyes as well. I used to write a few paras now and then on my own as it helps you in organizing your thoughts. I always emphasize on making on notes and I did that regularly. Making your own notes in own style improves your understanding of the things and helps in minimizing the bulky study material to manageable notes. It is true that there is information overload these days, every website claims to have the best material and sources and every topper also suggests the same things. So, it is utmost necessary that you read the basic books again and again and don't get distracted by the other material. Once you are done with the basic stuff, explore other material and buy/download only that much which you can read and digest. Most of us are generally familiar with the topics which are part of syllabus. However, due to very this fact, some people become complacent and take many topics taken for granted.

You should try to read thoroughly, but should never overlook the core concepts (for example, while studying caste – you should not overlook the very basic definition and perspectives on caste. alike. Try to match the topics of syllabus and read selectively. Its writing style is extremely lucid and most of the concepts are explained very well.

Thank you hope my experience would help you. ALL THE BEST !!!

Composed By

AKANKSHA JAIN

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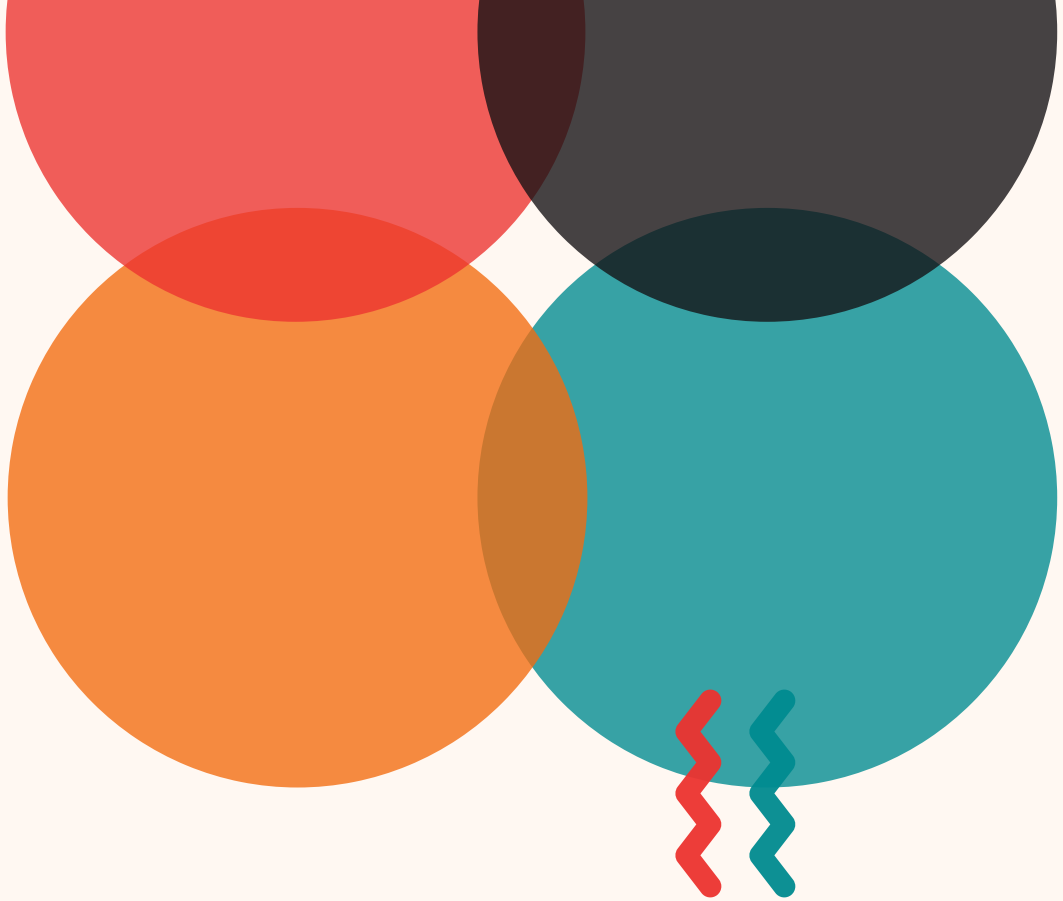
SEM III AND SEM IV TOPPER IN IT DEPARTMENT



FACULTY ARTICLES


CUSTOMER CARE
ANALYSIS
DOCUMENTATION
ACQUISITION
CRM
CUSTOMER RELATIONSHIP MANAGEMENT
PR
COMMUNICATION
DATABASE
CUSTOMER LOYALTY

Customer Relationship Management (CRM)

FACULTY

The term Customer Relationship Management or popularly known as “CRM”, is simply providing the customer the product or service in the manner that the customer expects it to be. CRM is very much an integral part of E-commerce, especially the service industry where a customer’s experience and feedback is very important in developing a service.

A common step in developing a product or service is by starting to look for its feasibility. This is usually carried out by conducting a feasibility survey for that particular product or service.

If we find that the product or service is feasible compared to all other products or services in the market and that it has something unique which could be the Unique Selling Proposition (USP) of that product or service then we go ahead with launching it. Usually a market survey and sample customer survey is done to see the demand in the market. This particular task is carried out by the marketing department which also does analysis of the study.

Once the product or service becomes popular then we start manufacturing it or providing it on a larger scale. Various organizations also try to bring in some new additions year after year in their products. Say for example, Colgate Toothpaste, has evolved from being just a plain mint toothpaste to being in different variants.

Similarly, Customization of products and services is also a very important part of CRM in modern days. Customization is nothing but manufacturing products as the customer desires, like the color, texture, fitting in terms of a dress that is being stitched by a tailor, is a very good example of a customized product.

Laptop manufacturers like Dell are also known to customize their products especially their laptops. So basically we can configure our own hardware and software for a Dell laptop and Dell will deliver it to us at our doorstep. So convenient!!
Nike, the famous shoe manufacturer, is also known to provide customized shoes to people. You can design your own shoes and provide it to Nike and they will make it for you!! That’s how great customization is.

CRM includes all this plus providing the customer with the best of service. Like if a customer enters to buy something in a shop, he would be greeted with a smile, asked for what he is looking for and then quickly providing the product or service that he is looking for. Same concept is also used by online shopping portals like Flipkart and Amazon.

They keep a track of what the customer is searching for, record it in their database and provide the similar type of products that he is searching for. The customer does not have to remember what he was searching for some days back, what the price was and what more they don't even have to compare the products with respect to price or features.

Another aspect of CRM is PRM or Partner Relationship Management which basically deals with maintaining good rapport with the vendors or suppliers which are related to the manufacturing process. Here we share knowledge and technology with the partners so that we can manufacture better products with good quality and less cost.

Probably the most important part of CRM is feedback from the customers. This feedback actually helps to build better products and to recognize the loopholes in the services provided to the customer. This feedback is provided to the manufacturers to build new products and to the service providers to bring in new processes and practices to improve their service.

CRM is thus said to be the only process in the organization where the customer is given the utmost importance and truly one can say "Customer is the King"!!

Composed By

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Effect of Machine Learning on dynamics of game-playing

FACULTY

In today's world, technological advancements have given human beings a luxurious life. In all fields of life, technology has now become a really important part. The domain of game-playing has also been dynamically changing with advent of new technologies. The current new technologies of automation, cloud, artificial intelligence have made machines 'smarter' and more interactive than it had ever been. Statistics have been noted which show that intelligent games or games with have a human-computer interaction(HCI) in the form of a artificially rationalized opponent(s), are now the most hyped and liked games among the current generation. With ever improving graphics and game-play stories, it becomes extremely essential that the CPU play matches up to the level of increasingly competitive gaming. PC games like Counter Strike provides in-game bots which are provided with increasing difficulties of easy, medium and hard. Also the popular Mobile game Clash Royale allows players to test various decks formed by them against these smart trainers (AI agents).

These machine learning programs need a lot of predictive analysis so as to carry out precise actions/counter-actions once a move is made. The improvements can be made by collecting and storing data of previous performance of the AI agent. However, a much better way to make it more human-like would be by observing the real-time game-play between human competitors, their strategies, moves, counter-moves can all be recorded and stored in AI logic and can be furthermore implemented in cyclic manner or as a response to certain condition(move) being made while in game-play.

Thereby the human-computer interaction will provide the users/gamers with a better efficient game-play and allow them to strategize and test their strategies in a better manner. On the whole it can be noted that the introduction of machine learning will soon turn into AI agents soon being the core of most popular games in the gaming dynasty.

COMPOSED BY
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The Big Next Century Challenges:
Mobile Networking for Smart Dust

FACULTY

Now-a-days, Wireless Communication technology is one of the key technologies for enabling the normal operation of a Wireless Sensor Network (WSN). It has been extensively studied for conventional wireless networks in the last couple of decades and significant advances have been obtained in various aspects of wireless communication. At the physical layer, a variety of modulation, synchronization, and antenna techniques have been designed for different network scenarios and applications. Whereas, at higher layers, efficient communication protocols have been developed to address various networking issues, for example medium access control, routing QoS, and network security. These communication techniques and protocols provide a rich technological background for the design of wireless communication in WSNs. It has been extensively studied for conventional wireless networks in the last couple of decades and significant advances have been obtained in various aspects of wireless communication. At the physical layer, a variety of modulation, synchronization, and antenna techniques have been designed for different network scenarios and applications. Whereas at higher layers, efficient communication protocols have been developed to address various networking issues, for example medium access control, routing QoS, and network security. These communication techniques and protocols provide a rich technological background for the design of wireless communication in WSNs. WSN can be distinguished from traditional wireless communication networks, for example, cellular systems and mobile ad hoc networks (MANET) and have unique characteristics such as densely deployment of node, higher unreliability of sensor nodes, and severe energy, computation, and storage constraints , which present many new challenges in the development and applications of WSNs. WSN is an emerging technology that promises a wide range of potential applications in both civilian and military areas. The development of WSNs largely depends on the availability of low-cost and low-power hardware and software platforms for sensor networks[1]. With the micro-electro-mechanical system (MEMS) technology, the size and cost of a sensor node have been significantly

reduced. On the other hand, energy efficiency can significantly be enhanced if energy awareness is incorporated in the design of system software, including the operating system, and application and network protocols. System lifetime can considerably be prolonged by incorporation energy awareness into task scheduling process.
In paper [2] it is exposed that Size, Power consumption and cost were the main issues of wireless communication. This article reviews the key elements of the emerging technology of "SMART DUST" and outlines the challenges of Wireless communication. A Smart Dust mote as illustrated in Figure 1 is a single package of Micro Electro-Mechanical System (MEMS) sensors, a semiconductor laser diode and MEMS beam-steering mirror for active optical transmission, a MEMS corner-cube retro reflector for passive optical transmission, an optical receiver, signal-processing and control circuitry, and a power source based on thick-film batteries and solar cells. These packages have the ability to sense and communicate, and were self-powered. This system encouraged the development of Sensor Nodes inWSN. The Smart Dust, is an integrated approach to networks of millimeter-scale sensing/communicating nodes. Smart Dust can transmit passively using novel optical reflector technology. This provides an inexpensive way to probe a sensor or acknowledge that information was received. Active optical transmission is also possible, but consumes more power. It will be used when passive techniques cannot be used, such as when the line-of-sight path between the dust mote and BTS is blocked.
This technology provided a challenging platform that harnessed the emergent behavior of simple sensor nodes. It deals with partial disconnections while establishing communications via dynamic routing over rapidly changing unidirectional links poses critical research challenges for the mobile networking community.

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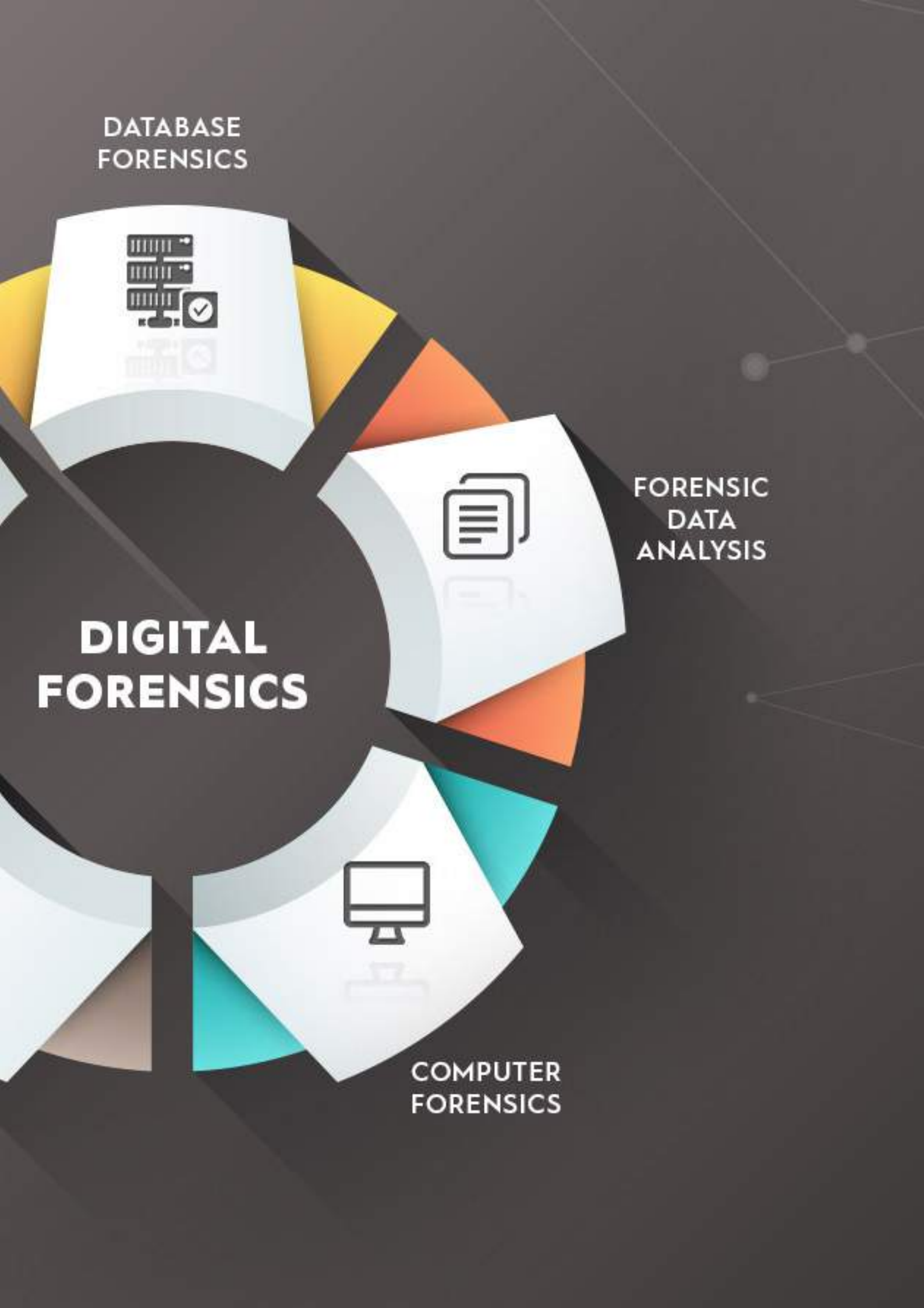
DATABASE FORENSICS
FORENSIC DATA ANALYSIS
DIGITAL FORENSICS
COMPUTER FORENSICS

Rethinking Digital Forensics : The Big Data Way

FACULTY

Preservation, collection, validation, identification, analysis, interpretations, documentations, of digital evidence taken from digital sources is called as digital forensics. Atthat point digital forensics was also transitioning from being mainly practised in separated environments such as law enforcement bodies and enterprise audit offices to a unified field. Nowadays this process is very advanced and it can be said that digital forensics principles, procedures and methods are shared by a large part of its practitioners, coming from different backgrounds (criminal prosecution, defence consultants, corporate investigators and compliance officers). Applying scientifically valid methods implies important concepts and principles to be respected when dealing with digital evidence. Among others we can cite:

▪ Previous validation oftools and procedures. Tools and procedures should be validated by experiment priorto their application on actual evidence.

Reliability. Processes should yield consistentresults and tools should present consistent behaviour overtime.

▪ Repeatability. Processes should generate the same results when applied to the same test environment.

▪ Documentation. Forensic activities should be well-documented, from the inception to the end of evidence life-cycle. On one hand strict chain-of-custody procedures should be enforced to assure evidence integrity and the other hand complete documentation of every activity is necessary to ensure repeatability by other analysts.

▪ Preservation of evidence – Digital evidence is easily altered and its integrity must be preserved at alltimes, from the very first stages of operations,to avoid spoliation and degradation. Both technical (e.g. hashing) and organizational (e.g. clear accountability for operators) measures are to be taken.

These basic tenets are currently being challenged in many ways by the shifting technological and legal landscape practitioners have to confront with. While this paper shall not dwell much on the legal side ofthings,this is also

Forensics. obviously something thatis always to
be considered in Forensics. Regarding the phases that usually make up the forensic workflow, we refer here again to the only international standard available and describe them as follows:
▪Identification. This process includes the search, recognition and documentation ofthe
physical devices on the scene potentially containing digital evidence. [ISO12]
▪ Collection – Devices identified in the previous phase can be collected and transferred to
an analysis facility or acquired (next step) on site.
▪ Acquisition – This process involves producing an image of a source of potential evidence,
ideally identicalto the original.
▪ Preservation – Evidence integrity, both physical and logical, must be ensured at all
times.
▪ Analysis – Interpretation ofthe data from the evidence acquired. It usually depends on
the context,the aims orthe focus of the investigation and can range from malware analysis
to image forensics, database forensics, and a lot more of application-specifics areas.
On a higher level analysis could include content analysis via for instance forensics linguistics
or sentiment analysis techniques.
▪ Reporting - Communication and/or dissemination of the results of the digital investigation to the parties concerned.
Rethinking Digital Forensics
In orderto face the many challenges but also to leverage the opportunities itis encountering
the discipline of digital forensics have to rethink in some ways established principles and reorganize
well-known workflows, even include and use tools not previously considered viable
for forensic use -concerns regarding the security of some machine learning algorithms has
been voiced, for instance in . On the other hand forensic analysts' skills need to be
rounded up to make better use ofthese new tools in the first place but also to help integrate
them in forensic best practices and validate them. The dissemination of “big data” skills will
have to include all actors in the evidence lifecycle, starting with Digital Evidence First Responders
(DEFRs), as identification and prioritization will see their importance increased and
skilled operators will be needed from the very first steps ofthe investigation.
Some tools fortackling the Big Data Challenge
Atthis stage, due also to the fastchanging
landscape in data science, itis hard to systematically categorize its tools and techniques. We review here some ofthem. Map-Reduce is a framework used for massive

paralleltasks. This
works well when the data sets does notinvolve a lot of internal correlation. This does not seem to be the case for digital evidence in general but a task like file fragment classification is suited to be modelled in a Map-Reduce paradigm. Attribution of file fragments -coming from a files system image or from unallocated space-to specific file types is a common task in forensics: machine learning classification algorithms - e.g. logistic regression, support vector machines- can be adapted toM-R ifthe analystforgoes the possible correlations among single fragments. A combined approach where a classification algorithm is combined for instance with a decision tree method probably would yield higher accuracy
Decision trees and random forests are fruitfully broughtto bear in fraud
detection software, where the objective is to find in a vast dataset the statistical outliers -in this case anomalous transactions, or, in another application, anomalous browsing behaviour.
In audio forensics unsupervised learning techniques underthe general definition of “blind signal separation” give good results in separating two superimposed speakers or a voice from background noise.
They rely on mathematical underpinning to find, among possible solutions,the least correlated signals. In image forensics again classification techniques are useful to automatically review big sets of hundreds orthousands of image files, for instance to separate suspectimages from the rest.

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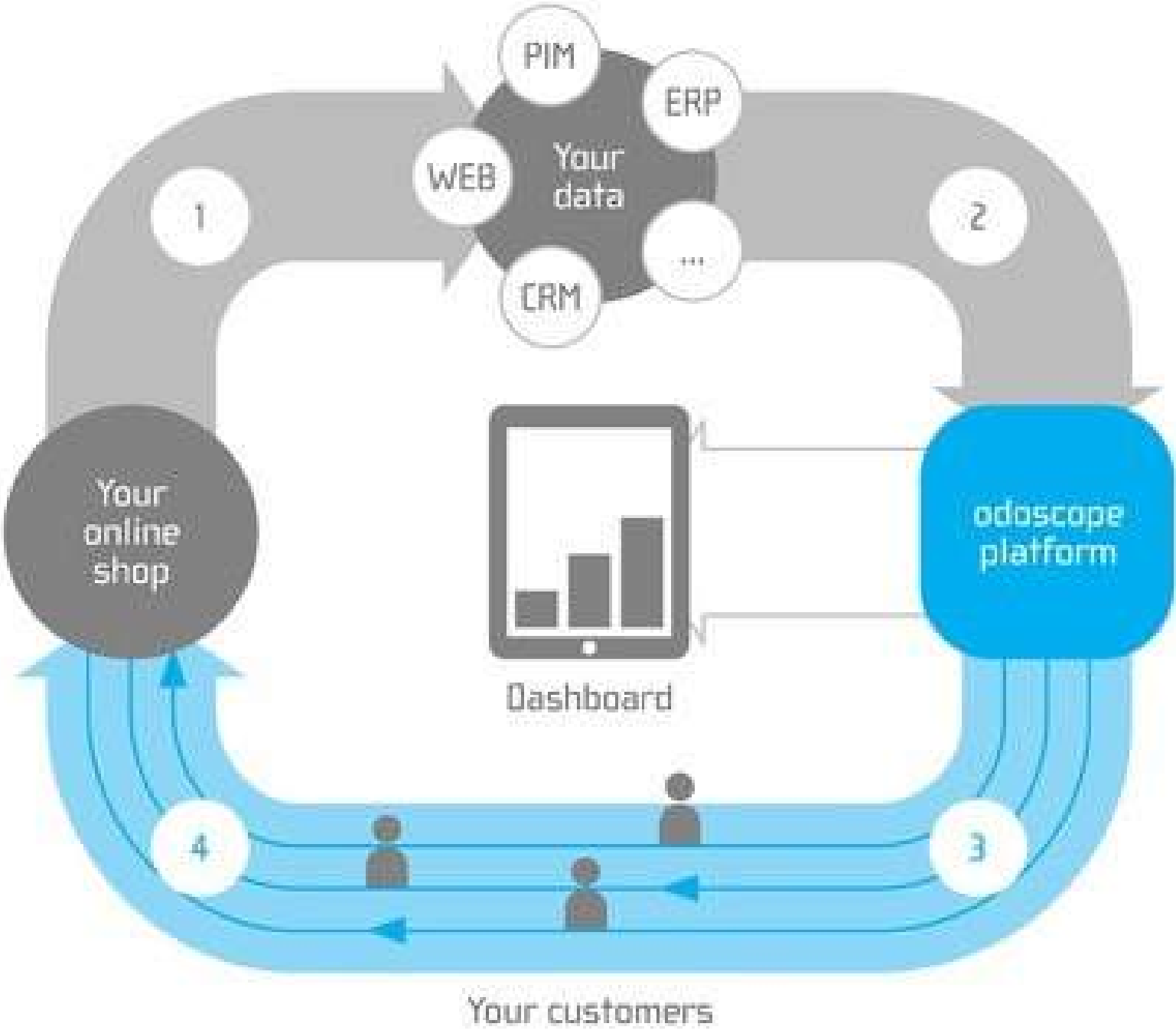
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Your customers

Operational Intelligence: The Next-Generation of Business Intelligence

FACULTY

Data analytics has added many new elements to business operations. Organizations now have access to many, many sources and streams of data, from historical marketing data to current log data, industry data, sensor data and more. It goes without saying that this data is useful in deriving intelligence, but there are different types of intelligence to glean from your data sets. Two similar and confusing terms are 'business intelligence' and 'operational intelligence'.

Business Intelligence:

Business intelligence (BI) is a variety of software applications used to analyze an organization's raw data. BI can include data mining, online analytical processing, and business reporting.

Business Intelligence refers to a set of methods and techniques that are used by organizations for tactical and strategic decision making. It leverages technologies that focus on counts, statistics and business objectives to improve business performance.

Business intelligence combines a broad set of data analysis applications, including ad hoc analysis and querying, enterprise reporting, online analytical processing (OLAP),mobile BI, real-time BI, operational BI, cloud and software as a service BI, open source BI, collaborative BI and location intelligence. BI technology also includes data visualization software for designing charts and other infographics, as well as tools for building BI dashboards and performance scorecards that display visualized data on business metrics and key performance indicators in an easy-to-grasp way.

Operational intelligence

Operational intelligence (OI) is a category of real-time dynamic, business analytics that delivers visibility and insight into data, streaming events and business operations. OI solutions run queries against streaming data feeds and event data to deliver analytic results as operational instructions. OI provides organizations the ability to make decisions and immediately act on these analytic insights, through manual or automated actions.

Operational intelligence enables organizations to:

- Gain a deeper understanding using all relevant information, especially from machine data
- Reveal important patterns and

analytics by correlating events from many sources n Reduce the time to detect important events

▪ Leverage live feeds and historical data to understand what is happening, identify anomalies, and make effective decisions

▪ Quickly deploy a solution and deliver the flexibility needed now and in the future

Operational vs Business Intelligence:

With recent advancements in computing technology, operational intelligence has finally become a reality. While business intelligence provides insights for static datasets, usually identifying long-term trends based on historical data, operational intelligence targets short-lived business opportunities, offering timely, actionable insights. Operational intelligence tracks the behavior of live systems, integrating streaming data with customer preferences and historical information to create a comprehensive view and generate immediate feedback.

Operational intelligence is often confused with “real-time analytics,” which refers to fast, interactive analysis of static data (typically, huge, historical datasets) instead of live data. Accelerating the analysis of static data helps make business intelligence more interactive as it examines important data patterns and long-term trends. However, this still leaves a critical gap between the identification of a pattern and the use of live intelligence to capture business opportunities in the moment. Operational intelligence fills this gap. Once implementation challenges have been met, operational intelligence creates exciting opportunities for enhancing the behavior of live systems in diverse industries. Here are a few examples.

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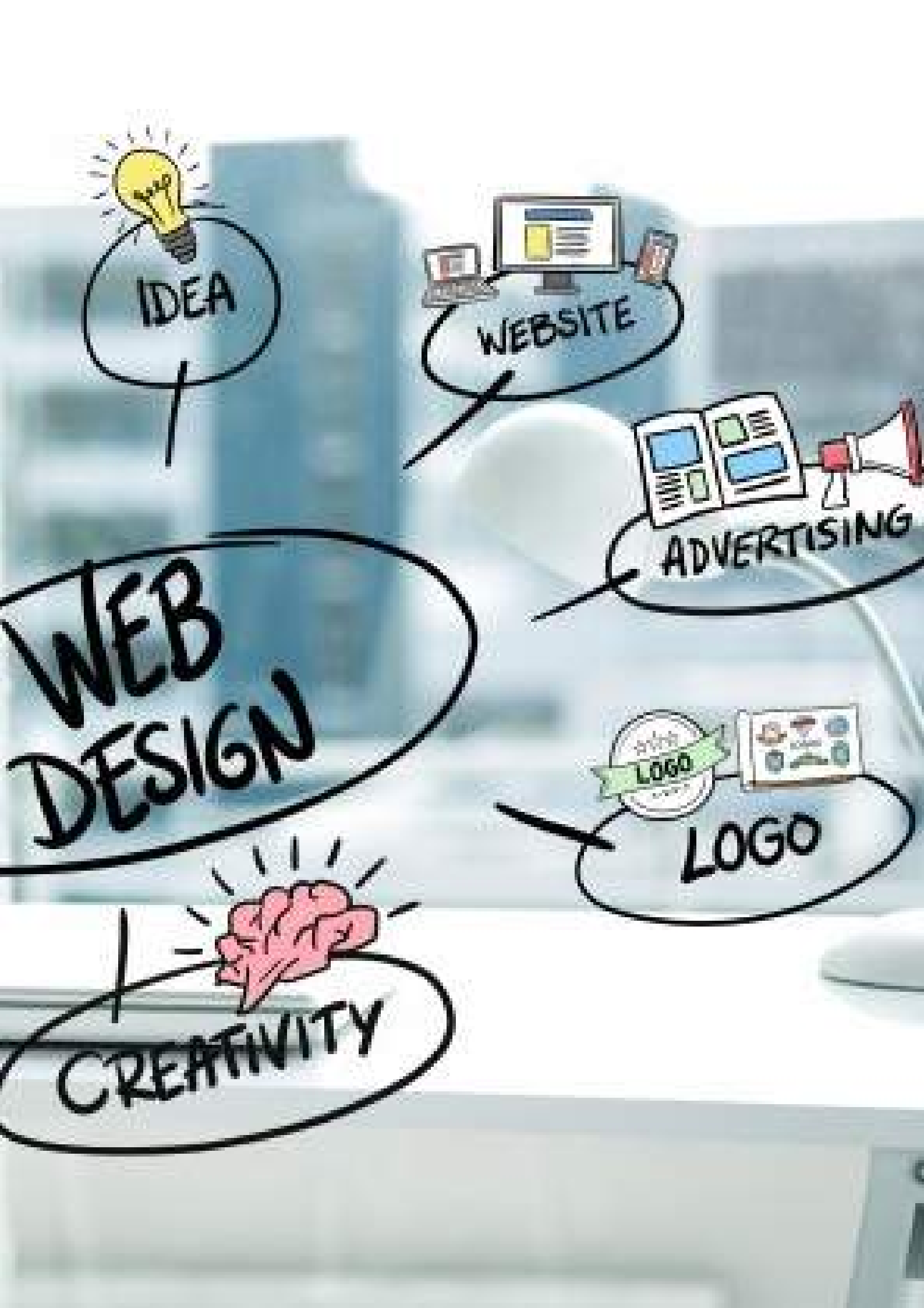

IDEA
WEBSITE
ADVERTISING
WEB DESIGN
LOGO
LOGO
CREATIVITY

Web technologies

FACULTY

Web technologies are infrastructural building blocks of any effective computer network it can be Local Area Network (LAN) or a Metropolitan Area Network (MAN) or a Wide Area Network (WAN), such as the Internet. Communication on a computer could never be as effective as they are without the plethora of web technologies in existence.

A Web-based application refers to any program that is accessed over a network connection using HTTP, rather than existing within a device's memory. Web-based applications often run inside a Web browser .Web-based applications are also known as Web apps.

A web server is an information technology that processes requests via HTTP, the basic network protocol used to distribute information on the World Wide Web. The term can refer either to the entire computer system, an appliance, or specifically to the software that accepts and supervises the HTTP requests.

Different types of web server

Web server like netscape'siplanet, bea's web logic and ibm'swebsphere are the major ones.

- Apache HTTP Server.
- Internet Information Services.
- lighttpd.
- Sun Java System Web Server.
- Jigsaw Server.

Web Developer Should Be Able to Explain at least these 14 terminologies in web technology

1. Browsers

Browsers are the interpreters of the web. They request information and then when they receive it, they show us on the page in a format we can see and understand.

The following are the examples of it:

- Google Chrome - Currently, the most popular browser brought to you by Google
- Safari - Apple's web browser
- Firefox - Open-source browser supported by the Mozilla Foundation
- Internet Explorer - Microsoft's browser. You will most often here web developers complain about this one.

2. HTML

HTML is a markup language. It provides structure of a website so that web browsers know what to show.

3. CSS

CSS is a Cascading Style Sheet. CSS let's web designers change colors,

- LESS - a CSS pre-compiler to make

fonts, animations, and transitions on the web. They make the web look good. working with CSS easier and add functionality
▪ SASS - a CSS pre-compiler to make working with CSS easier and add functionality

4. Programming Languages
Programming languages are ways to communicate to computers and tell them what to do. There are many different programming languages just like there are many different lingual languages (english, spanish, french, chinese, etc). One is not better than the other. Developers typically are just proficient at a couple so they promote those more than others. The following are the languages and links to their homepages:
▪ Javascript - used by all web browsers, Meteor, and lots of other frameworks
▪ Coffeescript - is a kind of "dialect" of javascript. It is viewed as simpler and easier on your eyes as a developer but it complies (converts) back into javascript
▪ Python -used by the Django framework and used in a lot of mathematical calculations
▪ Ruby - used by the Ruby on Rails framework
▪ PHP - used by Wordpress
▪ Go - newer language, built for speed.
▪ Objective-C - the programming language behind iOS (your iPhone), lead by Apple
▪ Swift - Apple's newest programming language
▪ Java - Used by Android (Google) and a lot of desktop applications.

5. Frameworks
Frameworks are built to make building and working with programming languages easier. Frameworks typically take all the difficult, repetitive tasks in setting up a new web application and either do them for you or make them very easy for you to do

The following are the examples of it:
▪ Meteor - a full-stack (front and back end) javascript framework
▪ Node.js - a server-side javascript framework
▪ Ruby on Rails - a full-stack framework built using ruby
▪ Django - a full-stack framework built using python
▪ Ionic - a mobile framework
▪ Phonegap / Cordova - a mobile framework that exposes native api's of iOS and Android for use when writing javascript
▪ Bootstrap - a UI (user interface) framework for building with HTML/CSS/Javascript
▪ Foundation - a UI framework for building with HTML/CSS/Javascript
▪ Wordpress - a CMS (content management system) built on PHP. Currently, about 20% of all websites run on this framework
▪ Drupal - a CMS framework built using PHP.
▪ .NET - a full-stack framework built by Microsoft
▪ Angular.js - a front-end javascript framework.
▪ Ember.js - a front-end javascript

framework.
▪ Backbone.js - a front-end javascript framework.

6. Libraries
Libraries are groupings of code snippets to enable a large amount of functionality without having to write it all by yourself. Libraries typically also go through the trouble to make sure the code is efficient and works well across browsers and devices (not always the case, but typically they do).
▪ jQuery
▪ Underscore

7. Databases
Databases are where all your data is stored. It's like a bunch of filing cabinets with folders filled with files. Databases come mainly in two flavors: SQL and NoSQL. SQL provides more structure which helps with making sure all the data is correct and validated. NoSQL provides a lot of flexibility for building and maintaining applications.
▪ MongoDB - is an open-sourced NoSQL database and is currently the only database supported by Meteor.
▪ Redis - is the most popular key-value store. It is lighting fast for retrieving data but doesn't allow for much depth in the data storage.
▪ PostgreSQL - is a popular open-sourced SQL database.
▪ MySQL - is another popular open-sourced SQL database. MySQL is used in Wordpress websites.
▪ Oracle - is an enterprise SQL database.
▪ SQL Server - is an SQL server manager created by Microsoft.

8. Client (or Client-side)
A client is one user of an application. It's you and me when we visit http://google.com. Client's can be desktop computers, tablets, or mobile devices. There are typically multiple clients interacting with the same application stored on a server.

9. Server (or Server-side)
Server is where the application code is typically stored. Requests are made to the server from clients, and the server will gather the appropriate information and respond to those requests.

10. Front-end
The front-end is comprised of HTML, CSS, and Javascript. This is how and where the website is shown to users.

11. Back-end
The back-end is comprised of your server and database. It's the place where functions, methods, and data manipulation happens that you don't what the client's to see.

12. Protocols
Protocols are standardized instructions for how to pass information back and forth between computers and devices.
▪ HTTP - This protocol is how each website gets to your browser. Whenever you type a website like "http://google.com" this protocol requests the website from google's server and then receives a response with the HTML, CSS, and javascript of the website.

▪ DDP - is a new protocol created in connection with Meteor. The DDP protocol uses websockets to create a consistent connection between the client and the server. This constant connection let's websites and data on those websites update in real-time without refreshing your browser.
▪ REST - is a protocol mainly used for API's. It has standard methods like GET, POST, and PUT that let information be exchanged between applications.

13. API

An API is an application programming interface. It is created by the developer of an application to allow other developers to use some of the applications functionality without sharing code. Developers expose "end points" which are like inputs and outputs of the application. Using an API can control access with API keys. Examples of good API's are those created by Facebook, Twitter, and Google for their web services.

14. Data formats

Data formats are the structure of how data is stored.
▪ JSON - is quickly becoming the most popular data format
▪ XML - was the main data format early in the web days and predominantly used by Microsoft systems
▪ CSV - is data formatted by commas. Excel data is typically formatted this way.

Composed By
Ms. Deepti Chavan
Assistant Professor
IT Department

digitalINDIA

connect to the nation

Digital India Challenges

FACULTY

Digital India vision is going to be imperative to propel the country into its next phase of growth. While the government is trying to connect remote areas/ villages via high-speed Internet services to digitally empower people it has to deal with multiple issues.

The demand side of digital in a country like India is a no-brainer but it is the supply side management and operating model of the proposed transformation that requires thoughtful planning and phased implementation to ensure that the impact is as immense as envisaged. What have been the efforts by the government on this?

We have separated the supply side into three sets of initiatives. The first is the digital infrastructure, which requires to be put in place. For this the telecom infrastructure will form the base. On top of this layer we need the IT infrastructure in the form of apps, software etc. The second set is content that needs to be relevant to the citizens and address their real-time requirements. The third layer is capacity. Unless we have the all these three sets (i.e. telecom infrastructure, content, capacity) we won't be able to meet the supply commence rate of the demand.

The reason I have separated them into these three elements is because they are different departments with different sets of issues (policy issues as well as operational concerns around each). But by no means is government the only player in these three areas. For example, today telecom infrastructure is largely been provided by the private sector whereas the role of the government is to provide the right policies. However, we also require a much larger stakeholder's involvement for infrastructure and operational set of issues around it.
Now there is a vision which brings all these elements together and then breaks that vision into road maps. For example, telecom infrastructure, broadband, mobile, digital identity, etc. are some areas or building blocks of the infrastructure which are clearly identified.

Actual programs and roadmaps like BharatNet and National Optic Fibre Network (NOFN) have delivered quantifiable objectives and milestones. Now mobile payments are going to

kick-in in a big way and we see mobile operators coming together with banks. So basic building blocks are in place, but for the next level of digital transformation to happen the content, applications and capacity need to come together.

The government plans to make India a truly digital nation by offering a plethora of e-governance services across sectors by using cloud, mobility, IoT and analytics. What are the execution challenges when it comes to the implementation of these solutions across implementation government departments, state governments and the UTs (Union territories)?
The challenge is around change management as the government has been working in a particular way and suddenly, we want them to work in a completely different environment. We are now asking them to put information online, respond to grievances and criticism. All this is difficult for people who are not used to function in this manner. Another aspect is to make them understand and educate on the advantages that digital will bring in running the government.

If we were to take a single organization like the Election Commission of India with a single objective of conducting elections; then technology becomes much easier to implement. But if we are dealing hundreds of government organizations, each having a different objective and diverse kind of citizen problems, the implementation is challenging.

We are trying to address these issues by opening up multiple information and communication channels for the masses. An example in this context would be MyGov, an innovative platform to build partnership between citizens and government with the help of technology for growth and development of India.

One positive aspect is that we have witnessed a rise in accountability from various departments. This is because for every major program that the government has taken; we have been asked to benchmark ourselves and put the information online.

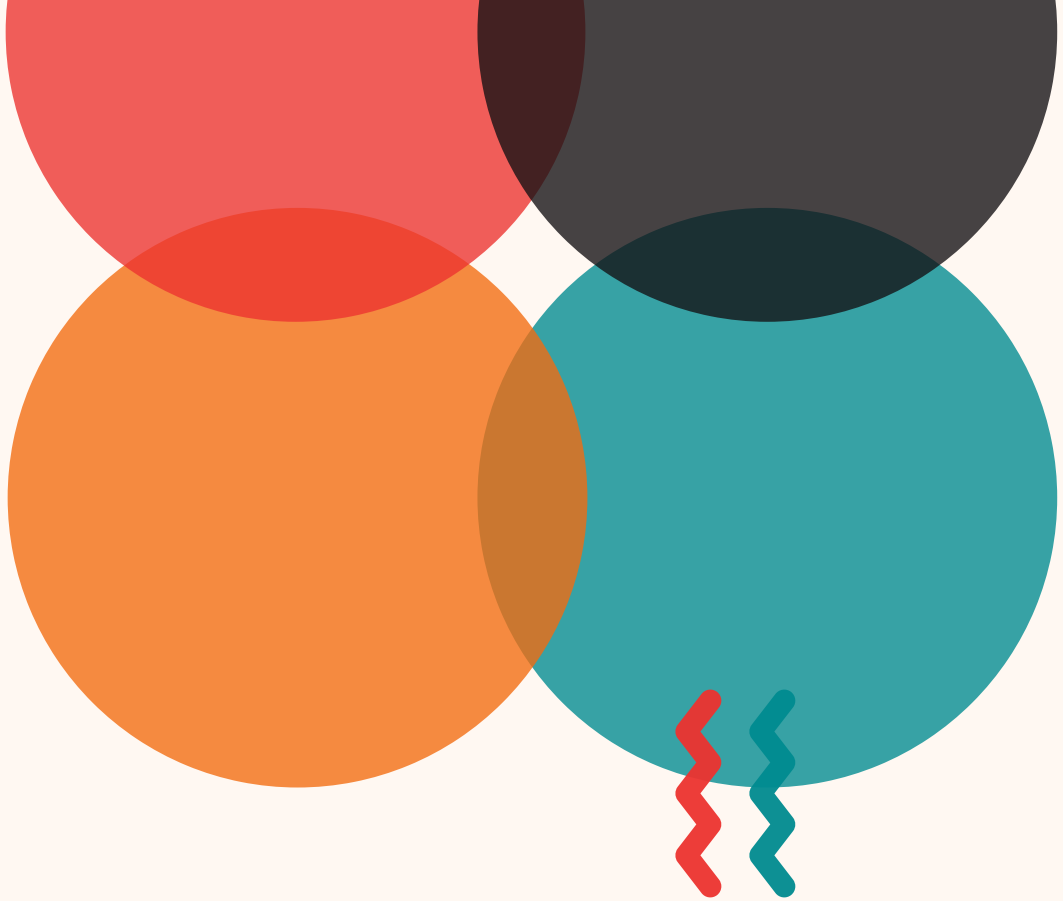
True value of digital means that work flow becomes automated. Efficiencies have to be brought in the processes, and it needs to be much faster and transparent. Only then it makes sense to be called digital

Composed By

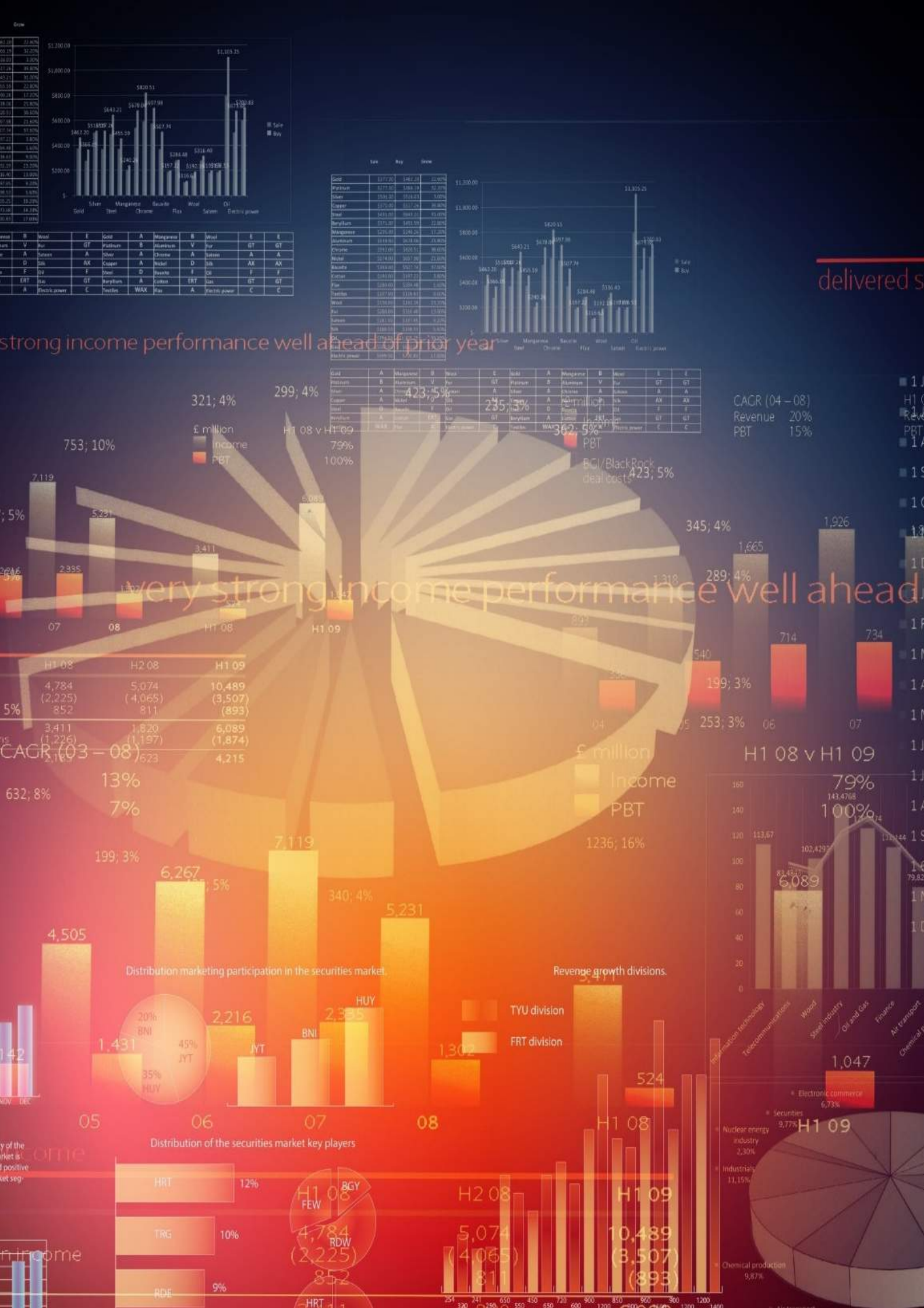
Mrs.Vandana Munde

Assistant Professor

IT Department



ALUMNI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PBT 15%
CAGR (03 – 08)
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345; 4%
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253; 3%
340; 4%
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632; 8%
13%
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Distribution marketing participation in the securities market.
Revenge growth divisions.
TYU division
FRT division
Distribution of the securities market key players
HRT
TRG
RDE
12%
10%
9%
Electronic commerce
Securities
Nuclear energy industry
Industrially
Chemical production

DATA ANALYSIS FOR DECISION MAKING

ALUMNI

INTRODUCTION:
A large amount of data already exists, and it will only increase in the future. Many companies already complain of swimming in a sea of data. However, enlightened companies are seeing this expansion as a source of competitive advantage. In fact, one of the hottest topics in today's business world is business analytics, also called data analytics. Analytics is the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions. A scientific art of doing anything meaningful with data that makes business decision making more accurate & easier.

ANALYTICS METHODOLOGY:
Those who work in the domain of data science solve problems and answer questions through data analysis every day. They build models to predict outcomes or discover underlying patterns, all to gain insights leading to actions that will improve future outcomes.

And the tools and technologies used in data analysis are evolving rapidly, enhancing data scientists' abilities to reach their goal. The methodologies that are covered in this topic are as follows:
a) Business understanding
b) Data Understanding
c) Data Preparation
d) Modeling
e) Evaluation
f) Development

For any analytics project to be completed successfully it is necessary for a data analyst to follow the analytics methodology along with the seven-step modeling process which are as follows.

The Seven Step modeling process are as follows:
a) Define the problem
b) Collect and summarize Data
c) Develop a model
d) Verify the model
e) Select one or more suitable decision
f) Present the result to the organization
g) Implement the model and update it over time

TOPICS COVERED:

a) Exploring the Data:
This section talks about the types of data and the anomalies in it, it also explains about how the raw data can cleaned and modified so as to generate meaningful insights to data
b) Probability and Decision Making Under Uncertainity:
Here we learn about the excel features that can help us solving the normal, binomial, poisson and exponential distribution. It also teaches about the probability distribution, about all the statistical and mathematical ways to handle the data
c) Data Visualization Techniques:
This section of the subject covers the visualization side of the analytics field wherein we we can make use of various plot diagrams such as eg. Ggplot to view the structured data.
Also we can make use of various bar charts to view and analyze the data.
d) Testing and clustering Techniques:
This section talks about the testing techniques such as Hypothesis Testing & ANNOVA testing. It also focusses on different regression techniques such as Logistic and Linear regression which are very important topics when it comes to data analytics or be it any analysis that we intend to perform
We also have clustering and segmentation available in case we need to analyze the data based on clusters or group so in such cases we can make use of clustering techniques like k-means algorithm which is a very effective algorithm.
Then we also have decision trees and time series analysis that can be handy when it comes to analyzing the raw data and generating meaningful insights.

SOFTWARE USED FOR ANALYSIS:
a) Excel & Stat tools
b) R Studio
c) Python
d) Tableau (Visualization tool)
e) Google Analytics (Visualization tool)

PROJECTS:
Data Analysis of Human Resource – Pace University
a) Formed research questions and performed hypothesis testing using human resource data sets to analyze why best and most experienced employees leave the company
b) Conducted Regression analysis on the processed data of human resource; wrote a report based on the findings and offered suggestions on how to predict which valuable employee is going to leave next.
Predictive Analysis on Book sales – Pace University
a) Collaborated with a team of 3 to forecast customer purchase preference and perform time series analysis
b) Normalized the data using excel and transferred the data in Rstudio; performed K means clustering analysis to transform data into homogeneous groups of purchase patterns to find meaningful insights.
c) Interpreted the results and visualized in Tableau. Presented to peers and faculty and recommended to target specific customers by providing special offers to gain profit

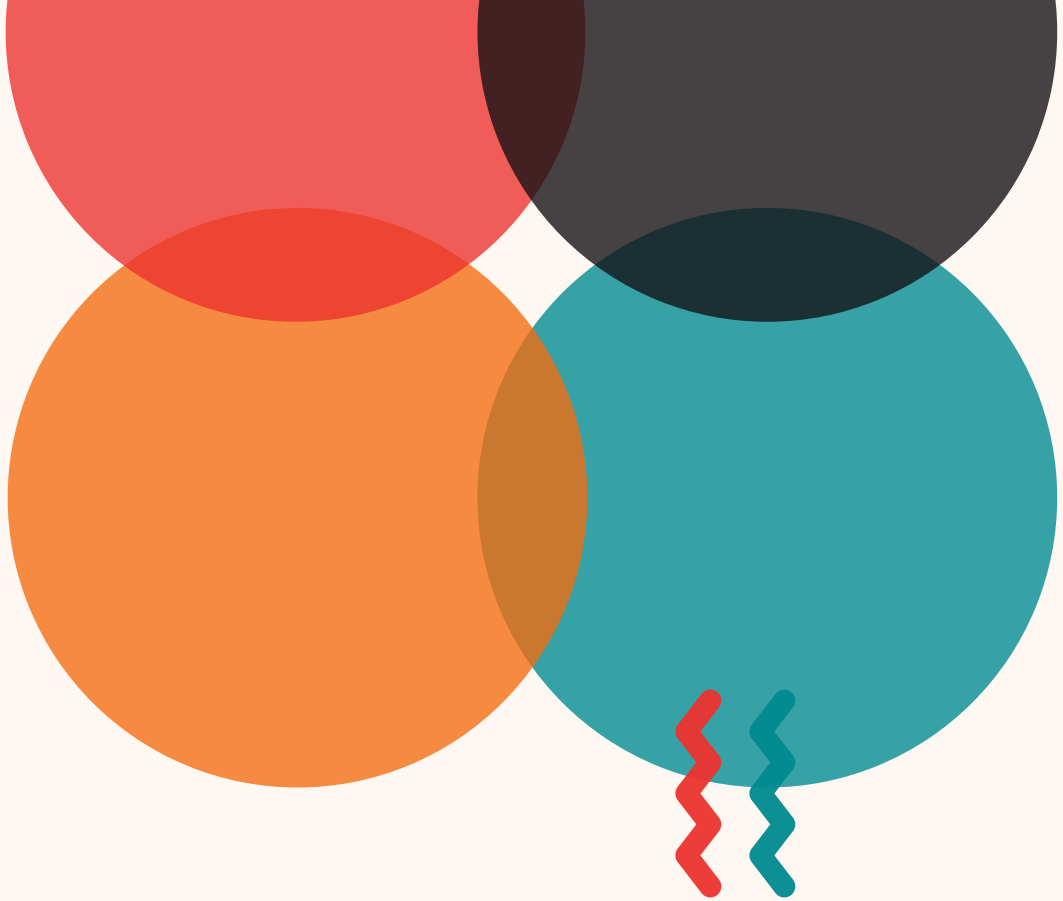
Composed By

NILESH KHATIYA

TCET IT ALUMNUS

(2011-2015)

CURRENTLY PURSUING HIS MASTERS AT PACE UNIVERSITY, NEW YORK.



PARENTS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planning
manager

IMPORTANCE OF MARKETING

PARENT

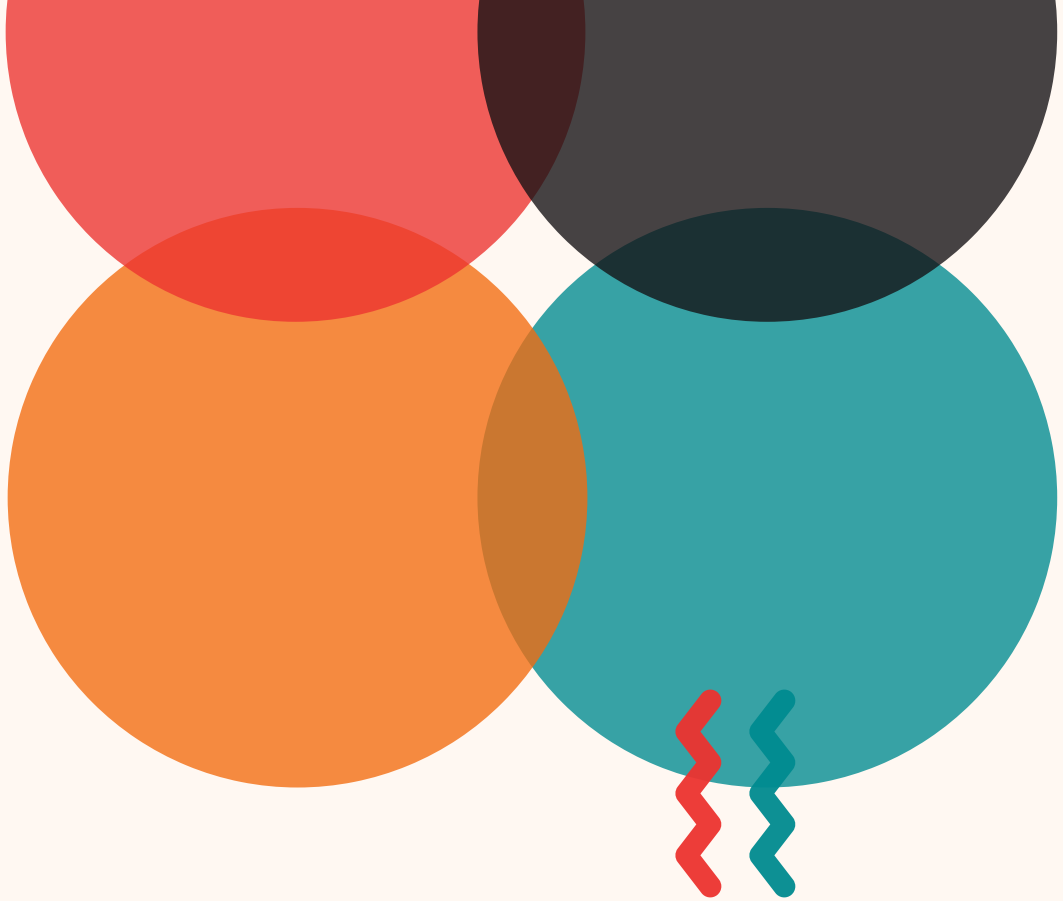
Dear Students,
I have total 18 year experience in to sales and marketing. I was associated with education Industry for more than 12 years, Worked with companies like ICFAI-Branch Manager, Zee Learn-Senior Manager, ITM groups-Sr, Regional Manager. (all India sales and marketing and recruitment of ICICI skill academy). Currently with logistic company at the post of Business head all India. Generally sales and marketing profession is chosen by the people not by choice but left with no choice. I choose my career by my choice. My experience is wonderful in terms of sales and marketing. Its really very challenging field.

The heart of your business success lies in its marketing. Most aspects of your business depend on successful marketing. The overall marketing umbrella covers advertising, public relations, promotions and sales.Marketing is a process by which a product or service is introduced and promoted to potential customers.

Without marketing, your business may offer the best products or services in your industry, but none of your potential customers would know about it. Without marketing, sales may crash and companies may have to close. No business can succeed without the sales and marketing. Sales and marketing is very important for any business and that's why there is tremendous demand for this field and this is the only field which gives you growth in terms of personality, money and career faster then any other field. Best part of this field is sale and marketing person can be absorbed in any industry. It's very interesting field. Every day new challenge new people to meet and new ideas to launch the product, New learning. It has good career path ie start from executive to and reach faster till the director sales (Perform and get your promoting need not wait for yearend.)

Lastly I would like to say that choose your career which passionate you. Do what you like and perform
well. If you work with passion then no one can stop your growth.
Best wishes
Sujata Mandre

COMPOSED BY
MRS. SUJATA MANDRE,
MOTHER OF
VEDANT MANDRE, SE IT A



FROM THE INDUSTRY

UBIQUITOUS COMPUTING: A BRIEF OVERVIEW

INDUSTRY

INTRODUCTION

The simplified version of Moore's Law states that processor speeds or overall processing power for computers will double every 18 months. He had stated this in 1965 paper. As we look at his statement now in 2017, we see that it's completely valid. Due to tremendous processing capabilities with a very small form factor, we have seen the computing scenario changing rapidly. Ubiquitous Computing or wearable technology is useful for the multiple applications especially related to helping humans. This usually requires advanced computational support more than static logic pre-coded in hardware. Electronic devices involved in this system would spread in a certain application area where computing was not imaginable earlier and keep communicating with each other in that environment. These computing devices are well integrated into the things present in the surroundings which are very difficult to notice. They become almost invisible.

The aim of ubiquitous computing or UbiComp is to embed a computer system so naturally into the environment that we use it without even thinking about it or noticing it. In this computing technology, computers are immersed in a real-time environment. Multiple sensors present in the system can interact with each other and control the environment. It requires a limited power supply and has limited memory and bandwidth which is enough to carry out its specified task. Generally, these devices are wireless, so they have greater flexibility and portability. Another interesting thing about ubiquitous computing devices is that they can be worn by human beings or can be integrated into wearable clothing and accessories so that the devices can function continuously, without stopping, in an always ON mode!! UbiComp is very different from virtual reality. In fact, it is exactly opposite of virtual reality as far as its goal is concerned. reality puts humans in virtual, computerized surroundings whereas the goal of UbiComp is to integrate computers into the human world and force the computers to live in the real world along with human beings!

What makes this possible?

- Microprocessors so small that they can be embedded in practically everything.
- Storage so inexpensive and dense that it can be provided everywhere.
- Wireless networking for inexpensive short range connectivity.
- New materials for new forms of appearance (e-ink, flexible displays, conductive fibers etc)

HISTORY

Ubiquitous Computing also called 'UbiComp' or pervasive computing was first defined by Dr. Mark Weiser in 1988 in the Electronics and Imaging Laboratory (EIL) of the Xerox Palo Alto Research Center (PARC). However, it is truly getting deployed only recently, as of now technology has provided the desired level of miniaturization and integration of various sensors and electronic computing devices to make the realization possible. An article written by Weiser in Scientific American 1991, contains his famous quote: “The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.” The period during 1940 to 1956 was of first generation computers when the concept of computers was getting evolved. These vacuum tube and magnetic drum based memory equipment were of wall size and occupying almost an entire room to accommodate.

In the late 1960s, when transistor replaced vacuum tubes, size of computers started reducing and we had the second generation of mainframe computers. While at one end, desktop computers were getting their shape, at the other end at Xerox PARC lab, scientists had another thing in mind. They wanted computers to be distributed but communicating with each other as per requirement. Computation could have been done at various places of the system by transferring the data between the components within the network.

There have been three major waves in computing so far, as far as the human computer interface is concerned. First was in the 1960s, when transistorized mainframe computers were available. Here, a single computer was shared by many people. The second was in the 1980s, when the need for more computers brought us in the era of personal computers and notebooks which achieved the ratio of one computer per person. As a result of advancement in embedded systems, networking and information technology increased computation power was available at affordable costs. This resulted in the usage of multiple computers by a single person. Consequently, the third wave in computing began in 1988, when Dr. Mark Weiser, Chief Technologist at Xerox Palo Alto Research Center (PARC) coined the term 'Ubiquitous Computing'.

Ubiquitous means everywhere, omnipresent. It refers to the trend that humans interact with a set of small multiple computers simultaneously. These computers are often connected to a network and are embodied in everyday objects in the environment. Thus, they simply become part of our lives without being explicitly noticed. Weiser wanted mobile and embedded processors to communicate with each other and surrounding infrastructure and smoothly support their operation to coordinate everyday work practices. Sensors, circuits, and processors all need to be networked wirelessly. To achieve this, each of these devices needs to limit its range of communication to make reuse of valuable bandwidth. Therefore, he tried to explore techniques for special use of radio spectrum and introduced the concept of bits-per-second per-cubic-meter to the UbiComp vision. Weiser also described UbiComp as “The coming age of calm technology”. UbiComp always tries to make computation calmly, unlike PC which tries to virtualize human world. UbiComp tries to push a computerized version of technology back into the physical world. For example, where a PC can give you a graphical printed page on its screen to read a virtual book, UbiComp tries to create a dedicated embedded device exactly like a book which you can hold in hands just like a physical book so you would never notice that you are reading a virtual book.

UbiComp is still a novice & evolving computing paradigm with the aim of supporting users in an omnipresent manner. This computing realm is very different to first generation mainframe computers and second generation desktop computing as it aims to support computation for anyone in any place at any time. End-devices such as smart mobile phones were not designed as computer devices but as a byproduct of system integration and micro-architecture-ism providing significant computational power that can provide additional services to end users.

GROWTH, APPLICATIONS & CHALLENGES

Since 1988, three major building efforts were taken at PARC within the Ubiquitous Computing program - LiveBoard, ParcPad and ParcTab. In 1992, PARC presented LiveBoard. It was an attempt to build a directly interactive, stylus based large-area display for use in computer supported meetings. It was a beginning to develop and evaluate user interfaces for group meetings, presentation and remote collaboration.

The LiveBoard project fitted into the broader scheme of ubiquitous computing for the workplace of the future. In LiveBoard, the image was projected from a digitally addressed LCD. It also incorporated a rear projection screen which could be easily seen at oblique angles by the group of people standing around the Liveboard. It also incorporated a wireless pen with four distinct states for drawing, popup menus or to provide other input controls. These states were controlled by switches on its body and pressure sensitive tip switch. The limitation of Liveboard as per the users was that the pen resolution was not good enough to provide an improved user experience over a whiteboard. Later, in 1995, Computer Science Lab (CSL) started two programs to create smaller computers ParcPad and ParcTab. ParcPad was book-sized and ParcTab was a palm sized computing device. In ParcTab project, CSL integrated a palm sized computer into the office network. It also introduced features like Email, group window, group voting, remote control in the product. This ParcTab project was used by Xerox as a test bed for its futuristic philosophy - The Ubiquitous Computing. Tab used 10 kbps, diffused infrared signalling for wirelessly communicating with ceiling mounted base stations. Every room had a base station providing an infrared wired micro cellular communication network. Each base station communicated through a wired connection to a workstation attached to building's Ethernet.

So ParcTabs were effectively passive terminals generating events according to user actions and sending them to remote servers in the network running some applications. Then, the response of the application was sent back to tab displays. ParcPad also used similar design approach but it used low-bandwidth X-protocol across a radio link to communicate with a base station through a short-range near-field radio at 250kbps. In 2000, IBM came with Linux Watch and in 2001 it launched IBM WatchPad 1.5. It was a wrist mounted embedded computer running Linux 2.4 on an ARM processor with integrated fingerprint reader, Bluetooth, infrared, speaker, microphone, touchscreen and push button interfaces. Today, we have a lot of wearable computers like AppleWatch, SonySmartwatch, etc available for mass use. Besides knowing the time, you can dial and receive calls, texts, use Wi-Fi, maintain physical fitness, get navigation information by using various integrated gadgets and apps. People were able to interact with these devices by a touch panel or switches. With the type of devices in the current market, you can interact using natural language voice commands.

. An example for this is the Google Glass which resembles standard eyeglasses with optical head-mounted display instead of lenses. This device can be called truly wearable as you do not notice its presence explicitly. You can use its many features by keeping your hands free. Photos, videos, email, surfing the internet, googling, navigation etc. all this can be done just by talking with the device. Besides voice interaction, it also has a touchpad, using which user can swipe through a timeline-like interface on display. You may want to show the world, what you are seeing on some special occasion. You can simply share the feed with your friends in real time and make them part of the experience. Work is being done in the healthcare sector to make use of wearable computing technology to solve health related issues. For example, this technology can be used to help people see better, remember better and function better. Today, we can use corneal transplants in the treatment of defective vision. In future, a visually challenged person can simply insert artificial eyes with zooming, infrared sensors and night vision facilities and will experience a super vision power.

CONCLUSION & FUTURE SCOPE

If you want to display something, it can appear in thin air, or be attached to a wall or projected onto any other surface

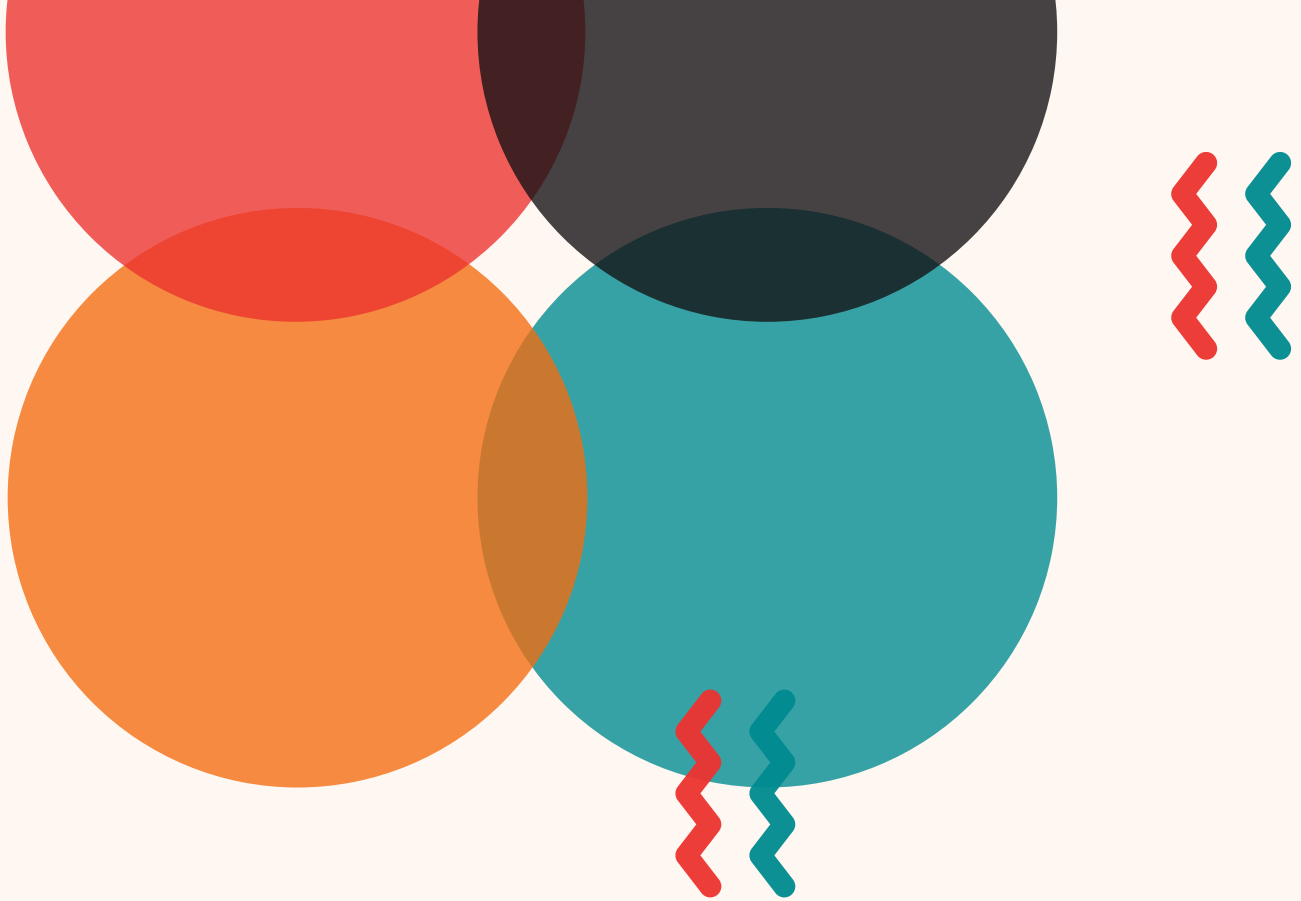
. If people want to watch TV together they can agree on where the screen should appear, its size and what show they watch or even let the TV decide what best suits you. Your playlist continues from where you stopped last be it in your home, car or on the streets. When doing your work, you can have screens on all your walls, menus and to-do lists attached here and there! It goes beyond this, the floor of your house may track your fitness and health constantly, and the walls change their colour according to your mood. The door of your house opens just looking at you. there will be computer programs that can recognize and identify your voice or track your eye movements to execute commands. Computer scientists and neurologists are working on various brain-computer interfaces that will allow people to manipulate computers using only their thoughts. Who knows? The computers of the future may react seamlessly with our desires.
So computers are shrinking in their size, becoming so small and pervasive that they are practically in everything and they are getting integrated into the fabric of our lives. Until now we have been taking care of not only ourselves but also the gadgets/computers we use. Few years later, we may not even recognize the presence of the computing device which is taking care of us more than we would take care of ourselves!

COMPOSED BY

MANVENDRA PRATAP SINGH

WORKS AT ACCENTURE

(2014- PRESENT)



INTERVIEWS

FACULTY SPEAKS

INTERVIEW

THE FOLLOWING INTERVIEW WAS CONDUCTED WITH DR.RADHIKA KOTECHA. AN ASSISTANT PROFESSOR OF THE IT DEPARTMENT AND A HIGHLY ACCOMPLISHED FACULTY, IT IS UNDER HER ABLE GUIDANCE AND EXPERIENCE THAT STUDENTS ARE ABLE TO COMPLETE DISTINGUISHED PROJECTS.

EXCERPTS:

Q; What do you feel about the working environment in this institute?
A; The environment is energetic and motivating! There are people from diverse regions of the country, each one with distinct characteristics. Yet, everyone here shares a focused commitment on the students with a goal of bettering tomorrow's generations. Since I have a personal mission to advance knowledge around the world, it feels good to be a part of this institute. In this institute, your work and dedication gets valued by higher authorities, you are always encouraged and given abundant opportunities to showcase your professional talents.

Q: Why do you prefer a career in Academics rather than an Industry?
A: Working in industries undoubtedly has advantages like you get flexible timings and you always have awareness about state-of- the-art technologies because the product you build is to be put in use immediately. But the joy of teaching far overrides such advantages. You get to interact with the youth and hence you always stay young. In fact, teaching is not a profession I would say. Teaching is a work or heart, a worship, a divine art. Apart from conveying knowledge, an academician encourages the students to dream big, to positively impact the future of our world. i believe that the true purpose of an academician is to prepare kids to be good citizens. The actual measure of your success isn't your grades or salary, but your ability to think critically and be intentional with your life.

FACULTY SPEAKS

INTERVIEW

Q: What do you feel about the current engineering curriculum as compared to that during your time?
A: Engineering curriculum has undergone drastic changes since the time we studied. The last lustrum has seen the development of amazing technologies which has, to a quite extent, been reflected in the engineering curriculum. This has led to impressive improvements in the engineering graduates' knowledge of the engineering sciences, mathematics, and analytical techniques.The curriculum now is immersing students in the entire spectrum of design considerations, which was absent during the time I pursued my engineering. With addition of new domains, elective subjects, computational tools, etc., the curriculum has been restructured to emphasize the engineering sciences as a coherent body of knowledge, familiarizing graduate students with state-of- the-art technologies covering worldwide industrial experience and research.

Q: What according to you should be the focus while teaching the upcoming generation?
A: For the upcoming generation, complexity is the daily norm, and change the only constant. Hence, I believe our major focus in educating the upcoming generation should be on developing critical thinking skills, connecting with those in the industry and really showing students, what life will be like in whatever profession they choose to be in. The upcoming generation should be provided five critical elements throughout their educational journey: 1) Command on language, 2) Leadership skills, 3) Self-authenticity, 4) Breadth (instead of being very narrow in knowledge) and most importantly 5) Resilience. Without these elements, we cannot expect the growth of the impending generation.

FACULTY SPEAKS

INTERVIEW

Q: What is your view on getting a PhD degree after doing your Master's? What prompted you to get a Ph.D. at such a small age?
A: The decision to pursue a Ph.D. after getting your Master's degree is a difficult one. A Ph.D. is a huge undertaking emotionally and mentally. It takes 4-5 years to complete during which you need the ability to continually motivate yourself through the times when your experiments are not working, when you've a lot of responsibilities at home, when you get too tired at work and all your energy is drained! While it takes effort, it's all in service of the field you're most passionate about. You need to set goals and give all your efforts in accomplishing them. I always desired to get the highest degree in my field and am always obsessed for research. Hence, I registered for my Ph.D. just 5 months after completion of my M.Tech. I always had two goals set in my mind: 1) I want to complete my doctoral studies while I'm 28, and 2) I want to pursue superior research and publish high-quality papers through my research. I'm glad I could achieve both my goals!

Q: How prepared are you for working towards the growth of the department?
A: As can be seen from my background, I am someone who has been fortunate enough to find good organizations to study and work for, where I have been able to progress and be continually challenged. Hence, I have been trained to do smart work, have dedication and discipline, have an ability of precise planning, and several innovative ideas that can be applied in all projects and tasks we undertake at departmental level. Along with these strengths, my effective teaching skills, my proficiency in research as well as experience in various verticals, I want to give my time, efforts and focus towards the growth of this already excelling department. I'm ready to take-up challenges and tasks with support of the Mentor Dean, the Head of Department and all my seniors!

FACULTY SPEAKS

INTERVIEW

DR. RADHIKA KOTECHA
ASSISTANT PROFESSOR,
IT DEPARTMENT

TOPPER SPEAKS

INTERVIEW

THE FOLLOWING INTERVIEW WAS CONDUCTED WITH MS.KIRAN YADAV, A BRIGHT, TALENTED AND HARDWORKING STUDENT STUDYING IN TE. KIRAN HAS PROVED HERSELF TO BE A BEACON OF EXCELLENCE BY CONSECUTIVELY SCORING A GPA OF 10.00 IN SEMESTERS 3 AND 4.
EXCERPTS:

Q: First of all, I would like to start off by congratulating you on such an amazing result. How does it feel?
A: Thank you so much for recognizing my efforts. It feels really great, when we expect something and finally achieve it will all the hardwork.

Q: How did you prepare for the end semester exams and the term tests? How did you make use of the resources facilitated by our college?
A: I guess term tests are not so difficult if we plan and study. from the very beginning of the semester, I started noting down all the things which were taught during the lectures by the faculties. And just prior to the term tests I made my own notes containing the combination from my class notes as well as from many other resources. for end semesters I used to note down only the bullet points or we can say the key words..just by looking at them I could remember the whole concept. Also I referred last 5 years question papers, noted down all the frequently asked questions and prepared myself in such a manner that I could be able to answer any question in a best way. The resources facilitated by the college were extremely helpful. All the notes and sums were completely explained in detail. And also last year's question papers were also provided with desired solution.

TOPPER SPEAKS

INTERVIEW

Q: Did you face any difficulties while studying any particular subject? If so, how did you overcome them?
A: Each subject has it's own difficulty level. I did face difficulties in some or the other subjects while understanding the concepts or the logic. For me, one of the difficult subject was ADC (analog digital circuits). To overcome my problems I referred video lectures from youtube and noted down the keypoints. this helped me alot.

Q: Do you have any particular hobbies that help you release stress? How do you manage to keep your cool during exam season?
A: Yes i do have a hobby of which I am fond of. I love cooking,listening to music while I have any spare time. I specially cook during my semester exams. and that really helps me alot releasing my stress to greater extent. I think...the best way of keeping yourself cool is taking short breaks while studying for too long. Most importantly what we do while we take a break plays an important role in releasing all your stress. I love strolling for some time, inhaling fresh air, spending time with my family, specially with my mom, talking to my sibblings about the difficulties I am facing in a particular subject. all these ways results in keeping myself cool and calm during any examinations.

Q: All toppers generally have a few tricks up their sleeves. Share some of them with us?
A: To be honest i don't have any tricks. I think its all because of my hardwork. there's a saying 'work smart not hard'. but I believe that hardwork is the only way to get your dreams.

TOPPER SPEAKS

INTERVIEW

Q: What drove you to choose engineering? And why IT?
A: I chose engineering as my career as it enhances my ability to think challengingly. In this field I'll face challenging situations where I can show my creativity and logical ability.

Q: How do you manage to balance time between all the workload such as assignments, writeups,etc with your own studies?
A: I believe that, to exist in this world we need to be multitasking. so I don't believe that managing assignments, writeups and studies hand in hand should create any problem. Yes, sometimes it does create problems. But that is what engineering teaches us, finding out the way to every problem that comes in front of us.

Q: If there's any advice you'd like to share with the students, what would it be?
A: It's not at all difficult in achieving what you desire. just focus and do the hardwork and just get it. the main road to your destination is the hardwork.

KIRAN YADAV
TE IT-B
SEM III, IV- GPA 10.00

STUDENT ACHIEVEMENTS

OUR TOPPERS

EVEN SEMESTER 2016-17

Bobby Kalal
FE IT A
GPA:9.15

Mayur Singal
FE IT B
GPA: 9.41

Vrundali Chitroda
SE IT A
GPA: 9.71

OUR TOPPERS

EVEN SEMESTER 2016-17

KIRAN YADAV
SE IT B
GPA: 10

AKANKSHA JAIN
TE IT A
GPA: 10

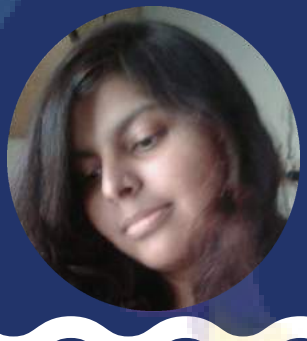
DIVYA SHARMA
TE IT B
GPA: 9.76

OUR TOPPERS

EVEN SEMESTER 2016-17

RINAL JAIN
BE IT A
GPA: 9.13

SHRUTI MENDON
BE IT B
GPA: 8.85



AAKANKSHA TIWARI
BE IT B
GPA: 8.85

STUDENT INTERNSHIPS

In House Internship offered by TCET

- Advait Maduskar (SE IT A)
- Aakash Jha (SE IT A)
- Anjali Chaudhary (SE IT A)
- Kartik Adak (SE IT A)
- Shubhankar Gore (SE IT A)
- Aniket Ladukar (SE IT A)
- Ritika Enagandula (SE IT A)
- Kanishk Sonee (SE IT B)

- Gopi Mehta (SE IT A)

Marketing Intern at Roast Media

Marketing Intern at Stratagile

- Shreya Joshi (TE IT A)
- Vishal Mishra (TE IT A)

- Samdharshi Kumar (SE IT B)

Ultratech Cement

Digital Marketing Intern at Eride

- Ahrar Khan (TE IT A)

Outside the classroom

EXTRA CURRICULAR ACHIEVEMENTS

- Vedant Shrivastava (TE IT B)- Ist Rank in EWPPC 2016, 2nd Rank in SJIT computer Science
- Dhwani Desai (TE IT-B) - Ist Rank in state level paper presentation at SAKEC 2016
- Pooja Mistry (BE IT A) - Ist Rank in Dance Competitions at VCET, TIMSR, SFIT 2016
- Prachi Jain (BE IT B) - 4th Rank at Smart India Hackathon

OUT ON THE FIELD

SPORTS

OUT ON THE FIELD

SPORTS

- Sonali Kamat (SE IT A) : Silver Medallist at National Level Karate Championship held at Amritsar
- Vedant Mandre (SE IT A) : Gold Medallist at National Level Athletics
- Tushar Balande (SE IT A) : Runner Up in Basketball tournament at Fr. Agnel College of Engineering
- Yash Kanodia (TE IT A) : Runner Up at state table tennis competiton
- Gaurav Gupta (TE IT A) : Bronze Medalist at 1st National Karate-do championship, Bronze Medalist at Karate BMC Mayor Cup Budo Tournament, Bronze Medalist at Kick Boxing at Mumbai BMC Mayor Cup, Gold Medalist at Third Maharashtra State Level Mumbai TC 2016, Gold Medalist at Karate Mumbai second National Karate Championship 2016
- Saurabh Khandelwal (BE IT A) : Runner up in Boxing at T-Spark 2017
- Atuk Mishra (BE IT B) : Runner up at inter collegiate carrom competiton

TESTIMONIALS

TCET has been nothing less than what I had hoped for. Supportive seniors and faculty, beautiful campus, quality education, real world experiences, and amazing friends. It has taught me things far beyond bookish knowledge and helped me broaden my horizons. It has prepared me for my career by having a balance between theory with hands on experience.

Disha Rajeshkumar Shah
Machine Learning Engineer
M.TECH (Computer Engineering)
from NMIMS College
TCET (2009-2013

Manvendra Pratap Singh.
TCET alumnus.
Batch of 2009-13.

The campus is filled with positive energy and exuberance. My first visit left me awestruck after looking at the infrastructure and maintenance of the college. The campus is full of limitless opportunities if you want to discover yourself. Besides that, the college gave me good placement opportunities, a sense of confidence to face the challenges and turbulence in life. The vast hands-on learning experiences that I was exposed to through the Information Technology department and the co-op opportunities through various extra and co-curricular activities have helped me to become an adaptable and thorough engineer. TCET & it's faculties create an incredibly supportive environment for students which I have not seen duplicated anywhere else!

TESTIMONIALS

UG:

It gives me great pleasure to say with pride that I am a student of TCET. The relationship between faculties & student is very cordial, which gives us an opportunity to excel in our area of interest. The years spent here are splendid and has helped me to grow better professionally & personally. I would like to thank all the faculties and staff for making me a "Better Person".

Nishant Gandhi(BE IT A)

Placements opportunities are great. TCET provides various training programs and mocks for placement students which is great for students with low confidence.

- Jyoti Vikram, BE IT B

TCET provides a student centered and friendly learning environment which is very essential in the overall development of a student. They provide great opportunities for developing both technical and interpersonal skills.

- Akanksha Chand, BE IT B

PG:

My experience as a student with TCET was a journey full of knowledge, practical development and technical exploration. With an elaborate team of highly experienced professors and state of the art infrastructure, TCET provides a very good platform to learn & kick start your career.

Aneri Sheth(ME IT)

Parent:

I feel safe and secured to send my daughter in TCET. TCET has helped to grow & to achieve her goals. Always being supportive. Best of luck TCET!!

Vandana Jain

M/O Prachi Jain(BE IT(B))

DEPARTMENT ACTIVITIES

SEMINAR ON COMPETITIVE PROGRAMMING

ANGULAR JS WORKSHOP

GROUP DISCUSSION

POSTER MAKING

DEPARTMENT ACTIVITIES

IDEA PRESENTATION

TECHNICAL ARTICLE WRITING COMPETITION

SEMINAR ON RECENT TRENDS IN CLOUD COMPUTING

HACKATHON

ACM CORE COMMITEE

- Esha Vijayvargiya : HOC Student Co-odinator
- Krupal Vora : Sponsorship Head
- Miloni Nisar : Event Manager
- Ribah Shaikh : Secretary
- Jeet Shah : Chairperson
- Shruti Agarwal : Vice Chairperson
- Gaurav Gupta : Treasurer
- Advait Maduskar : Publication Head

(L-R)

THE PUBLICATION TEAM

Harshita Khandelwal : dESIGNER

Nandan Maurya : dESIGNER

Abhishek Jain : eDITOR

Advait Maduskar : eDITOR-iN-cHIEF

Dr. Rajesh Bansode (HOD, IT Department)

Mrs. Hetal Amrutia (Faculty-In-Charge, EZINE)

CODE OF ETHICS

The Department of Information Technology of TCET believes that IT Engineers make a direct impact on almost all aspects of Human Life for its betterment. IT engineers should strictly adhere to the highest principles of ethics of ethical conduct. In order to inculcate high standards in professional behavior, the department advocates the following code of ethics for all the students, Faculty members, & staff of the department.

1. Strive to be professional competent to provide high quality product & services.
2. To responsibly make decisions, minimizing hazards to society and to disclose potential factors that may be a threat to health and society.
3. Be fair to all individuals and not discriminate between individual based on religion, race, sex, age, disability, national, origin, etc.
4. Give credits to contribution of others viz. copyrights, patents, intellectual property.
5. Protect and respect privacy and ensure confidentiality of information whenever appropriate.
6. The Knowledge gained during the course of study will not be misused for carrying out any illegal activities, intruding and hacking of networks.