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MULUND COLLEGE OF COMMERCE

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About the Management

Parle Tilak Vidyalaya Association

A learned scholar, a great mathematician, philosopher, teacher and orator, Lokmanya Bal Gangadhar Tilak left for his heavenly abode on 1st August 1920. A group of eminent personalities and other residents of Parle made a commitment that they would continue the great work of Lokmanya Tilak . As the first step in this direction, they decided to start a school in Vile Parle. Thus on 9th June 1921, Parle Tilak Vidyalaya Associations Marathi Medium School began in One room with just 7 students. Eventually, Parle Tilak Vidyalaya (Marathi Medium) Primary and Secondary School was started in 1923.In June 2017 Parle Tilak Vidyalaya Association's English Medium School (SSC curriculam) was started at Andheri.

The local stalwarts from Vile Parle contributed generously, despite difficult times to construct the school buildings. The Students strength increased and the management soon realized the need for facilities for higher education beyond school level. This led to the establishment of Parle College of Science and Arts in 1959.

The management soon felt that a Science and Arts College was not enough. In order to meet the growing demand for Commerce , the Parle College of Commerce was started in 1960 which was later named "M.L.Dahanukar College of Commerce". The Parle Tilak Vidyalaya Association also made its presence felt in the central suburbs when it started " Mulund College of Commerce " in 1970. Also in 1970, in a nearby suburb Andheri . Parle TilakVidylaya Association opened another Marathi Medium school, named as " Paranjape Vidyalaya " both Primary and Secondary School. Very soon, that school also became a force to reckon with students featuring regularly in the merit lists.

About the College

PTVA's Mulund College of Commerce is proud to be a part of this rich educational legacy. Established in 1970, in a very short period of time, Mulund College of Commerce emerged as one of the most prestigious commerce colleges of suburban Mumbai. MCC has excelled in all aspects of in higher education. Our results at the Higher Secondary Certificate examination and the Final Year University examinations have always been excellent. It has been one of the most sought-after colleges, not only for excellence in academics but also in co-curricular and extra-curricular activities. Our students have performed exceedingly well in professional courses securing All India Ranks in such examinations. Our alumni hold prominent positions in the Banking and Financial sectors, in the Indian judicial system and in the sphere of media and entertainment. The college has produced eminent sportspersons of whom nine have been the recipients of the Shiv Chhatrapati Awards. Our students played at the National and represented India in competitions at International levels.

MCC embraced the Self Financing Courses when it was newly introduced in the last decade of the twentieth century. Today, MCC boasts of a very strong Self Financing section offering courses in Accounting and Finance, Banking and Insurance, Financial Markets, Management Studies, Mass Media, Computer Science and Information Technology.

About Departments of Computer Science and Information Technology

The Department of Computer Science and Information Technology were started in the year 2001 when these courses were introduced by the University of Mumbai. The curriculum has been consistently kept at par with the industrial needs and is regularly revised at definite intervals. With a highly

qualified teaching and training staff these Departments have consistently outperformed in identifying, enhancing and enriching the ability of the students and to carve a niche for themselves in the modern and advanced world. The department alumni's include students who have went on to become businessmen, researchers, academicians and have achieved great feat's in the industry. We intend to make learning, a self-motivating and self-development experience for the students, which will enable them to reach pinnacle and also to conduct themselves as a better human being. Our courses provide a strong foundation for our students to pursue further studies in M.Sc. Computer Science, M.Sc. IT, MS, M.Tech ,MCA, MCM and MBA.

About the Conference

Conferences such as CyProbe 2020 - A National Conference on Advances Research in Computer Science and Information Technology provide a valuable opportunity for enthusiastic students, research scientists, industry specialists and decision-makers to share experiences. They bring together people from all different geographical areas who share a common discipline or field, and they are a great way to meet new people in your field. Such platforms are essential for building a strong network and enlightening our minds with the presentations on various fields. CyProbe 2020 is one that brings research diversity in regards to computer applications. It allows the participants to build on their ideas, research, develop knowledge in their field and finding solutions to problems. The themes of CyProbe 2020 revolve around Networking and Cloud, Applications of Information Technology, Intelligent Systems and Core Computing. These are presented with the hopes of giving and receiving exciting new insights. Speakers at CyProbe 2020 will establish themselves in their respective fields of study and the attendees will be united by the multidisciplinary topics. The focused nature of learning at this conference will allow you to dig deeper with the understanding of your topic of interest.

About IARA

Indian Academicians and Researchers Association (IARA) is an educational and scientific research organization of Academicians, Research Scholars and practitioners responsible for sharing information about research activities, projects, conferences to its members. IARA offers an excellent opportunity for networking with other members and exchange knowledge. It also takes immense pride in its services offerings to undergraduate and graduate students. Students are provided opportunities to develop and clarify their research interests and skills as part of their preparation to become faculty members and researcher. Visit our website www.iaraedu.com for more details.

Patron's Message

Prof. Suhas Pednekar
Vice Chancellor
University of Mumbai and Dr. Homi Bhabha State University (HBSU)

We are in the fourth revolution where the human skills are rapidly being replaced by automation through AI. This brings the label "Agile Human" into picture that refers to people with physical dexterity and agility. Manual tasks that cannot be automated require capabilities out of reach by machines. We should now find steps in which we stay one step ahead of AI. People should effectively use AI rather than using it mindlessly and becoming slaves to AI. Famous personalities like Sophia the robot, and Elon Musk make headlines regularly. Since this platform has us gathered here today, there is a lot to get enlightened by.

The four themes of the Conference reflect that the departments of CS and IT are making the conscious effort of keeping up with the pace in technological advancements. There is a plethora of research out there. With platforms like these that provide an opportunity to bring out and present the areas of interest, conferences like CyProbe 2020 are intellectual successes. We hope that the participants will gain insights and promote new ideas in the society. I extend my best wishes to all and wish you a successful conference.

Principal's Message

In this golden jubilee year of our college, we have planned and implemented a host of events. Two Memorial lectures – Dr. B.G. Bapat Memorial Lecture Series and Tilak Smruti Vyakhyana were launched. All departments of the college organized various inter-collegiate events to enrich the academic environment. The Golden Dream Run was held to engage with the society. The other events include the Yuva Sahitya Sammelan to popularize cultural values among the youth.

The Departments of Computer Science and Information Technology have made conscious efforts to keep pace with the rapidly changing world. Going beyond the call of duty, the faculty have motivated students to perform to their full potential and enjoy the process of knowledge enhancement. This national conference on Advanced Research in Computer Science and Information Technology - CyProbe is a continuation of our commitment to the cause of holistic education. The conference explores four major areas – Networking and cloud, Application of Information Technology, Artificial Intelligence and Core Computing. In a world of technological advances, these thrust areas will open new avenues for research and newer skill sets for the years to come.

It gives me immense pleasure in wishing well for this National Conference organized by the Departments of Computer Science and Information Technology of our college.

A BRIEF ABOUT ORGANIZING COMMITTEES

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A REVIEW PAPER ON "IOT" & IT's SMART APPLICATIONS

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ABSTRACT
We are travelling in a new age of computing technology which is Internet of Things a full form for IoT. IoT is a kind of worldwide global neural network in the cloud which assigns many things. The IoT is cleverly attached devices and systems that included smart machines relating and communicating with other machinery, environments, objects and structures and the Radio Frequency Identification whose abbreviation is RFID and sensor network skills will upsurge to grab this new task. As a result, a huge amount of data is being produced, stored, and that data is being treated into useful actions that can knack and govern the things to make our lives plentiful calmer and inoffensive—and to reduce our influence on the environment. Every association such as companies and civil institutions needs up-to-date information about people. In this respect, most formations either use websites, emails or notice boards. However, in most nations internet access is accessible to people on systems and their mobile devices, so that the transferring of the information can be much easier and less costly through the internet.

Keywords: Information dissemination, Embedded System, Web server formatting, smart system.

I. INTRODUCTION

Internet of Things (IoT) term signifies a general idea for the ability of network devices to sense and gather data from around the world, and then share that data all over the Internet where it can be managed and utilized for numerous interesting purposes. The IoT is comprised in smart machines interrelating and working together with other machines, matters, surroundings and assemblies. Now a day's every individual are associated with each other using heaps of communication way. Where most general communication way is the internet so in an alternative word we can say internet which connects peoples.

The necessary idea of the Internet of Things (IoT) has been universally for approximately two periods, and has involved many researchers and industries because of its great estimated impact in improving our daily lives and society.

When things like domestic applications are connected to a network, they can effort together in collaboration to deliver the ideal service as a whole, not as a collection of independently working devices. This is valuable for numerous of the real-world presentations and amenities, and one would for instance rub on it to figure a smart house; windows can be shut automatically when the air conditioner is bowed on, or can be unlocked for oxygen when the gas oven is bowed on. The knowledge of IoT is particularly valued or persons with incapacities, as IoT technologies can provision human doings at larger scale like building or society, since the devices can equally collaborate to turn as an entire system.

Communication capability and isolated physical control main to the next step is how do I mechanize things and based on my settings and with sophisticated cloud-based processing, make things occur without my interference? That's the eventual objective of some IoT applications. And, for those applications to allocate with and motivation to the Internet to accomplish this goal, they must first become intelligent (incorporate an MCU/embedded computer with a related unique ID) then connected and finally measured. Those abilities can then enable a new class of facilities that makes life easier for their users.

The era of Internet of Things was first invented by Kevin Ashton in the year 1999 in the scenery of supply chain management. Though, in the previous period, the definition has been more inclusive casing wide range of requests like healthcare, conveniences, conveyance, etc. Though the definition of Things has altered as technology transformed, the main impartial of making a computer sense evidence without the aid of social meddling remains similar. An essential expansion of the current Internet into a Network of unified objects that not only crops information from the environment and cooperates with the physical world but also practices existing Internet standards to deliver facilities for information handover, analytics, presentations, and transportations. Motorized by the occurrence of policies allowed by open wireless technology namely Bluetooth, RFID, Wi-Fi facility and telephonic data facilities as well as entrenched sensor and actuator knots, IoT has strolled out of its start and is on the brink of altering the present static Internet into a fully joint Upcoming Internet. The Internet revolt led to the interconnection among persons at an extraordinary scale and pace. The next revolt will be the interconnection among objects to create a smart atmosphere. Only in 2011 did

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the number of unified strategies on the planet pass the actual number of people. Currently there are 9 billion united plans and it is predictable to reach 24 billion devices by 2020. Now a days universally like at railway station, shopping malls, in colleges a data counter is compulsory that provides information around the train timetable, advertising offers and significant notice directly. From educational organization viewpoint, the problematic is that it requires some staff that is dedicated to that purpose and that must have up to date information about the institute and the recent happenings in the institute. The second problem is that a person needs to go in the institute at the information desk in order to get information from them. The answer of this is to use a technology and make technology accountable to answer all the queries asked by people. The utmost tool is Cell phones, which are available to nearly everybody and that is connectable to internet to download up-to-date information. If the information is not efficient over the internet, in those cases where the information is not being updated over internet, we need to call customer service center for support. Some authors planned a method that has all the information stored in its database, whenever somebody needs information they have to use that device and get related information from through that device. For this to work, the device must be available to user who needs any help or support. The educational institutes have a condition where scholars can show their presence in any chunk of the campus and might miss substantial updates such as repositioning of classes etc. Additionally, students or clienteles might not be able to know important information in-time for it to be valued to them as they might not be able to permit through those notice boards often.

Enabling technologies for the IOT

There are three kinds of technologies that let the internet of things,

i. Near-field communication and Radio Frequency Identification (RFID) - In 2000s, RFID was the leading technology. After few years, NFC developed widely in central (NFC). NFC has turn out to be common in smartphones throughout the early 2010s, with usages such as interpretation NFC tags or for access to public transport.

ii. Quick reply codes and Optical tags - This is used for low-cost classification. Phone cameras decipher QR code by means of image-processing methods. In actuality, QR advertisement movements give less outcome as users want to have additional application to recite QR codes.

iii. Bluetooth and low power - This is one of the newest techniques. All afresh releasing smartphones have BLE hardware in them. Tags originated on BLE can signal their firm at a power financial plan that lets them to function for up to one year on a lithium coin cell battery.

II. LITERATURE REVIEW

In each association, there is always an information desk that provides information, advertisement messages and many notifications to their customers and staff. The problem is that it needs some staff that is devoted to that drive and that necessity have up to date data about the offers, announcement and the society. Due to IOT we can observe many smart devices nearby us. Many people hold the view that cities and the world himself will be covered with detecting and actuation, many entrenched in “things” creating what is mentioned as a smart world. Similar work has been already done by many people around the world. In literature [10] the IoT refers to perceptively associated devices and systems to gather data from embedded sensors and actuators and other physical objects. IoT is predictable to spread quickly in the coming years a novel measurement of amenities that develop the quality of life of customers and effectiveness of initiatives, revealing a prospect. Presently this time Mobile networks formerly bring connectivity to an extensive range of devices, which can permit the expansion of new services and requests. This novel tendency of connectivity is going elsewhere tablets and laptops; to associated cars and buildings; smart meters and traffic control; with the vision of intelligently linking almost anything and anyone. This is what the GSMA refers to as the “Connected Life”. The author in [11] defines the idea of sensor networks which has been made feasible by the convergence of micro electro-mechanical systems technology, wireless communications. Firstly the sensor networks applications and sensing task are explored, and according to that, the appraisal issues manipulating the design of the sensor network is delivered. Then the procedures and etiquettes developed for each layer and the communication architecture for sensor networks are drawn.

The authors in [1] industrialized an Electronic Information Desk System. Here they are consuming SMS based approach but diverse way. The system is calculated to work autonomously without the need of any human operator and when a learner or operative needs any information, they will need to send an SMS to this organization which will reply with the information compulsory by user. Many technical communities are dynamically following research topics that donate to the IOT.

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Possibility of IoT in the bus transport system in Singapore. Singapore, which is precisely very advanced but still has the scope of progression in its transport system. the complete a system by using the IOT for the customer to understand and estimate different bus options in an effective manner. Subordinate research was used to forecast entrance timings of buses as well as the troop inside each bus. The literature [13] offerings a three-layered network building of Internet of Things (IOT) communication technique for high-voltage broadcast line which comprises the wireless self-organized sensor network (WSN), optical fiber compound above ground wire (OPGW), general packet radio service (GPRS) and the Beidou (COMPASS) navigation satellite system (CNSS). The function of each layer of a network, application placement, and organization of energy ingesting is deliberate. The method can encounter the needs of interconnection between the nursing center and stations, reduce the terminals‟ GPRS and CNSS configuration and OPGW optical access points, and safeguard the on-line monitoring data broadcast real-time and dependable under the situation of the remote region,

extreme weather and other environmental conditions. [3] Various procedural communities are energetically pursuing research topics that donate to the IoT. Nowadays, as sensing, communication, and controller become ever extra cultured and omnipresent, there is important overlap in these communities, sometimes from somewhat different viewpoints. More cooperation between the communities is encouraged. To bring the basis for declamation open research glitches in IOT, a dream for how IOT could alter the world in the distant future. Here and now in this era the IOT may be used in numerous research field in this literature those may off the record as enormous scaling, making knowledge and big data, architecture and dependences, sturdiness, honesty, security, confidentiality and human-in-the-loop.

Advantages

- Students or employee easily get important notice or information by message any time 24x7. •Within a seconds organization can change notice or information by sending SMS only. •Admin can alter the display message or notification from any place or anywhere.

Disadvantage

- If anyone needs information they have to do message and for every new information they have to send message over and over to the organization.

III. APPLICATIONS

This method is designed for a spending complex mall but it can be also used in numerous organizations like the educational Notice board system or at Railway station, Bus stand and Air-port to display the information and notification. In mall it is also used to control the moisture and temperature of the mall via central AC by consuming temperature sensors. In the Industrial group, it can be also used. E-display systems may be used to display an Emergency message in Hospitals. Some areas where IoT frequently used

i Smart cities

To make the city as a smart city to engage with the data exhaust produced from your city and neighborhood.

- Checking of parking areas accessibility in the city.
- Checking of atmospheres and physical conditions in buildings, bridges and historical monuments.
- Classify Android devices, iPhone and in general any device which mechanises with Bluetooth interfaces or WiFi.
- The capacity of the energy emitted by cell stations and Wi-Fi routers.
- Observing of vehicles and ordinary levels to improve driving and walking routes.
- Detection of nonsense levels in vessels to improve the garbage collection routes.
- Shrewd Highways with warning messages and changes according to weather conditions and unforeseen minutes like accidents or traffic jams.

ii. Security & Emergencies

- Perimeter Access Control: Discovery and control of people in non-authorized and limited.
- Liquid Presence: Liquid discovery in data centers, searching building grounds and storerooms to prevent failures and corrosion.
- Radiation Levels: In nuclear power locations surroundings dispersed measurement of radiation levels to generate leakage warnings.

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- Volatile and Dangerous Gases: Discovery of gas leakages and stages in industrial surroundings, backdrops of chemical factories and inside pits.

iii. Smart agriculture

- Wine Quality Refining: Inspection soil moisture and shaft diameter in vineyards to switch the quantity of sugar in grapes and grapevine health.
- Green Houses: Regulator micro-climate circumstances to maximize the manufacture of fruits and vegetables and its quality.
- Golf Courses: Selective irrigation in dry regions to decrease the water resources essential in the green.
- Meteorological Station Network: Knowledge of weather circumstances in fields to estimate ice formation, rain, drought, snow or wind fluctuations.
- Compost: Regulator of humidity and temperature levels in alfalfa, hay, straw, etc. to evade yeast and other microbial pollutants.

iv. Domestic & Home Automation

In household by using the IOT system remotely observer and manage our home applications and cut down on your monthly bills and resource usage.

- Energy and Water Use: Energy and water source consumption observing to get advice on how to save cost and resources.
- Remote Control Applications: Exchange on and off remotely requests to avoid accidents and save energy.
- Interruption Discovery Systems: Detection of windows and doors openings and violations to stop interlopers.
- Art and Goods Defense: Observing of situations inside museums and art storerooms.

v. Medical field

- All Detection: Help for aging or restricted people living self-governing.
- Medical Fridges: Observing and Control of situations inside freezers storing medicines, vaccines, and organic elements.
- Sportsmen Caution: Energetic signs detecting in high-performance cores and stadiums.
- Patients Surveillance: Observing of situations of patients inside hospitals and in old people's homes.
- Ultraviolet Energy: Dimension of UV sun rays to notify people not to be exposed in certain hours**.**

vi. Industrial Control

- Machine to Machine Applications: Machine auto-diagnosis the difficult and mechanism.
- Indoor Air Quality: Observing of oxygen levels and toxic gas inside chemical plants to safeguard employees and goods safety.
- Temperature Observing: Observer the temperature inside the manufacturing.
- Ozone Presence: In food factories detecting of ozone levels throughout the drying meat process.
- Vehicle Auto-diagnosis: Data gathering from Can Bus to send real time fears to problems or provide guidance to drivers.

IV. CONCLUSION

The IoT potentials to allocate a step change in individuals‟ quality of life and enterprises‟ output. Through a broadly dispersed, locally intelligent network of smart devices, the IoT has the possible to allow extensions and improvements to important facilities in transportation, logistics, safety, utilities, teaching, healthcare and other areas, while providing a new bionetwork for application growth. A concentrated exertion is required to move the manufacturing outside the early stages of market growth towards maturity, driven by mutual understanding of the separate nature of the prospect. This market has separate physiognomies in the areas of facility distribution, commercial and charging models, competences compulsory to deliver IoT services, and the differing demands these services will place on mobile networks.

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Linking those smart devices (nodes) to the web has also ongoing trendy, though at a leisurelier rate. The pieces of the technology puzzle are coming composed to accommodate the Internet of Things sooner than most persons imagine. Just as the Internet marvel happened not so long ago and wedged like a wildfire, the Internet of Things will trace every feature of our lives in less than a period.

We have previously seen the wide application of internet of things. In this exertion we will current a model of IOT based E-Advertisement system for the applications of Shopping malls & other administrations. This proposes model will substitute the advertisement system in big shopping compound like Big bazaar, Reliance Fresh etc. Even we can preserve the humidity inside the big shopping malls without any Human efforts. Also we can use this model system for the instructive group or Railway stations. This prototype model we will instrument using virtual components in Proteus 7.1 software.

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A REVIEW PAPER ON BIG DATA AND HADOOP

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ABSTRACT
In this universe of information the term BIG DATA has followed with new scenarios and challenges to deal with the huge amount of data. BIG DATA has became a place of great significance and is becoming the option for new researches. To find the valuable information from huge amount of data to administrations, we need to investigate the data. Expertise's in data examination is essential to get the information from formless data on the websites in the form of texts, images, videos or social media posts. This paper presents an summary on Big Data, Advantages and its possibility for the future research. Big Data present prospects as well as challenges to the researchers. An overview on prospects to healthcare, technology etc. is given. This paper gives an outline to Hadoop and its components. This article also emphases on application of Big Data in Data Mining.

Keywords: BigData, Hadoop, MapReduce, HDFS, Data Mining

I. INTRODUCTION
BIG DATA is a ambiguous topic and there is no exact meaning which is followed by everyone. Data that has extra-large Capacity, comes from Variation of sources, Variation of formats and comes at us with a great Speed is normally refer to as Big Data. Big data can be structured, unstructured or semi-structured, which is not managed by the predictable data management techniques. Data can be produced on web in several forms like texts, images or

Videos or social media posts. Where situation of increase the huge amount of data in an cost-effective and well-ordered way, parallelism is used [1]. So Velocity, Veracity, Volume and Variety these are main features of Big Data.

Fig-1: 4v's of BIG DATA

Volume means measure of data or big amount of data produced in every second. Mechanism produced data are examples for these features. Currently data volume is rising from gigabytes to petabytes [2]. 40 Zeta bytes of data will be generated by 2020 which is 300 times since 2005 [3]. Another feature of Big Data is speed that is inspection of flowing data speed is the speed at which data is produced and handled. For example social media posts [2].Variation is another important feature of big data. It states to the type of data. Data may be in different format such as Text, numerical, images, audio, video, social media data [2]. On twitter 500 million tweets are sent per day and there are 300 million active users on it [3].Reliability means ambiguity or accuracy of data. Data is vague due to the discrepancy and incompleteness [2]

II. CHALLENGES AND OPPORTUNITIES
Around 900 million web pages on Internet given that information about Big Data. Big Data is the next big mechanism after Cloud [11]. Big data comes with a lot of opening to deal in health, education, earth, and industries but to deal with the data having large capacity using traditional prototypes becomes very problematic. So we need to look on bigdata challenges and design some calculating prototypes for well-organized examination of data [13]

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A. Challenges with Big Data: [12]

1) Heterogeneity and In completeness: If we want to examine the data, it should be organized but when we deal with the Big Data, data may be organized or un organized as well. Heterogeneity is the big challenge in data Examination and predictors need to manage with it. Consider an example of patient in Hospital. We will create each rec996+ord for each medical test. And we will also make a record for hospital halt. This will be changed for all patients. This assignment is not well planned. So management with the Various and imperfect is necessary. A good data examination should be applied to this.

2) Scale: As the name pronounces Big Data is having large size of data sets. Handling with large data sets is a big problem from decades. Earlier, this problem was resolved by the computers getting previous but now data volumes are becoming enormous and processors are static. Universe is moving on the way to the Cloud technology, due to this variation data is produced in a very high rate. This high rate of growing data is becoming a challenging problem to the data authorities. Hard disks are used to store the Data. They are slower I/O performance. However now Hard Disks are swapped by the secure state drives and other technologies. These are not in slower rate like Hard disks, so new storage system should be planned.

3) Appropriateness: Additional challenge with size is speed. If the data gatherings are large in size, longer the time it will take to inspect it. Any method which deals efficiently with the size is likely to accomplish well in term of speed. There are situations when we needed the examination results rapidly. We take a one example, there is any cheat in corporate, It should be inspected before the deal is completed. So some new method should be thoughtful to meet this challenge in data analysis.

4) Secrecy: Secrecy of data is another big problem with big data. In some countries there are strict acts about the data secrecy, for example in USA there are strict acts for fitness records, but for others it is less powerful. For example in social media we cannot get the private posts of users for emotional analysis.

5) Human Cooperation: In malice of the advanced computational replicas, there are many designs that a computer cannot notice. A new technique of harnessing human cleverness to solve problem is crowd-tracking. Wikipedia is the best example. We are dependable on the information given by the unfamiliar person, however most of the time they are correct. But there can be other people with other purposes as well as like providing false information. We need technical model to handle with this. As humans, we can look the appraisal of book and find that some are positive and some are negative and come up with a conclusion to whether buy or not. We need methods to be that intelligent to decide.

B. Opportunities to Big Data: [14]Now this is time to Data Revolution. Big Data is providing so many prospects to business organizations to develop their business to higher profit level. The technology like big data is singing an important part of each field like economics, health, Education, banking, and corporates as well as in government.

1) Technology: Nearly each top business like Facebook, IBM, yahoo have accepted Big Data and are exploiting on big data. Facebook manages 50 Billion photos of customers. Each month Google manages 100 billion quests. Since these stats we can say that there are a lot of scenarios on internet, social media.

2) Government: Big data can be used to grip the difficulties handled by the government. Obama government exposed big data research and growth creativity in 2012. Bigdata exploration played an important part of BJP winning the elections in 2014 and Indian government is put on big data analysis in Indian constituency.

3) Healthcare: Rendering to IBM Big data for Healthcare, 80% of homeopathic data is shapeless. Health care organizations are familiarizing big data technology to get the whole information about a patient. To increase the healthcare and low down the charge big data examination are necessary and certain technology should be improved

4) Science and Research: Big data is a current topic of research. Various scientists are working on big data. Around so many articles being accessible on big data.

5) Media: Media is using big data for the advertisings and marketing of products by targeting the interest of the user on internet. For example social media posts, data predictors get the number of posts and then examine the attention of user. It can also be complete by getting the positive or negative evaluations on the social media.

III. HADOOP FRAMEWORK

Hadoop is open any one software used to process the Big Data. It is very famous used by administrations/researchers to analyze the Big Data. Hadoop is influenced by Google's structural design, Google File System and MapReduce. Hadoop procedures the large data sets in a spread calculating environment.

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A. Hadoop contains of two main mechanisms:

1) Storing: The (HDFS)Hadoop Distributed File System: These are dispersed file system which brings responsibility taking and measured to run on creation hardware. HDFS brings high amount entree to application data and is suitable for requests that have vast data sets. HDFS can stock data over thousands of servers. HDFS has master/slave construction [5]. Files added to HDFS are separated into fixed-size masses. Mass size is configurable, but avoidances to 64 megabytes.

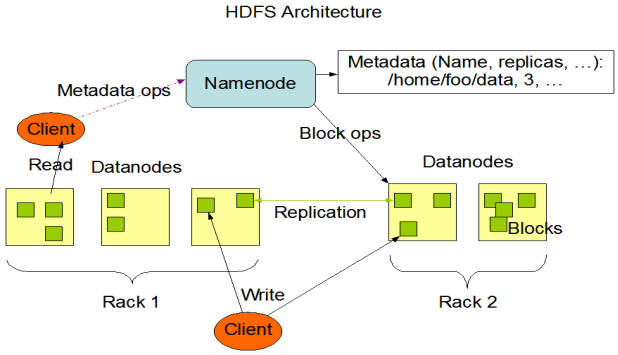

Fig-2: HDFS Blocks

2) Processing: MapReduce [4]: It is a software project classical presented by Google in 2004 for effortlessly writing applications which procedures enormous volume of data in equivalent on huge bunches of hardware in responsibility. This functions on huge data set, separations the problem and data sets and run it in equivalent way. Two utilities in MapReduce are as following:

a) Map –The Map function continually runs first naturally used to filter, transform, or parse the data. The outcome from Map develops the input to Reduce.

b) Reduce –The Reduce function is elective normally used to encapsulate data from the Mapfunction.

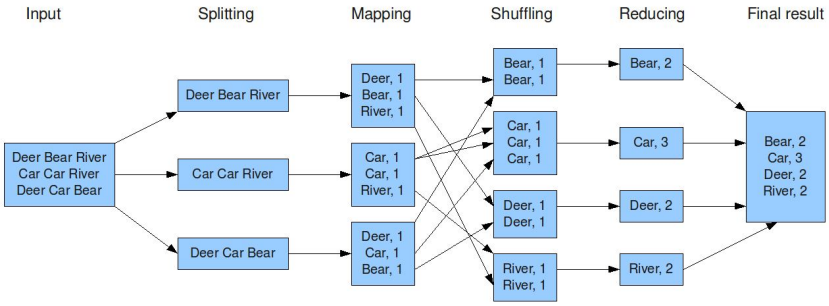

Fig-3: Map Reduce Processing

IV. USES IN DATA MINING

Big Data is very useful for Specialized Organizations as well as to the investigators to notice the data strategies in bigdata sets. Take out valuable information from vast amount of big data is called as Data Mining. There is vast amount of data on web in form of text, numbers, social media posts, images and videos. To examine this data to get useful information for security, health, education etc., we need to present new data mining method which is effective. There are numerous Data mining methods which can be used with big data, some of them are:

A. Arrangement Analysis: It is a organized process for gaining important information about data and metadata. Organization can also be used to bunch the data.

B. Group Analysis: It is the procedure to identify data sets that are similar to each other. This is done to get the similarities and variances within the data. For example clusters of consumers having similar favorites can be directed on social medial [6].

C. Evolution Analysis: Evolution Analysis is also called as inherent data mining mostly used to mine data from DNA sequences. But can be used in Banking, to forecast the Stock exchange by previous years' time series Data [7].

D. Outlier Analysis: Some explanations, documentations of substances are done which do not make a design in a Data Set. In medical and banking problems this is used.

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V. LITERATURE REVIEWS

Anupam Jain, Rakhi N K and Ganesh Bagler studied Indian Recipes and discovered that the presence of certain spices makes a meal much less likely to contain ingredients with flavors in common. Jain and others chose an online website TarlaDalaa.com and downloaded more than 2500recipes for their research. 194 different ingredients were found in these recipes. Then they studied Network of links between these recipes. They found that Indian cuisine is characterized by strong negative food pairing that even higher than any before. According to them, "Our study reveals that spices occupy a unique position in the ingredient composition of Indian cuisine and play a major role in defining its characteristic profile". "Our study could potentially lead to methods for creating novel Indian signature recipes, healthy recipe alterations and recipe recommender systems," conclude Jain and mates [8,9].Vidyasagar S. D did a survey on Big Data and Hadoop system and found that organizations need to process and handle petabytes of Data sets in efficient and inexpensive manner. According to him if there is any node failure then we can lose some information. Hadoop is an Efficient, reliable, Open Source Apache License. Hadoop is used to deal with large data sets. Author explained its need, uses and application. Now days, Hadoop is playing an important role in Big Data. Vidyasagar S.D concluded that "Hadoop is designed to run on cheap commodity hardware, it automatically handles data replication and node failure, it does the hard work –you can focus on processing data, Cost Saving and efficient and reliable data processing"[10].

VI. CONCLUSION

In this review paper, an summary is delivered on BigData, Hadoop and applications in Data Mining. 4 V's of Big Data has been discussed. The summary to big data encounters is assumed and many scenarios and applications of big data has been considered. This paper defines the Hadoop Framework and its mechanisms HDFS and Map reduce. The Hadoop Circulated File System (HDFS) is a dispersed file system deliberate to run on produce hardware. Hadoop plays an important role in Big Data. This paper also emphases on current research he sin Data Mining and some literature reviews have also been considered.

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A SOFT COMPUTING TECHNIQUE AND THEIR APPLICATIONS

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ABSTRACT
Exponential development in soft computing technologies has noticeable new pointers in influential symbol, modelling examples and optimization devices for solving real time issues. With the great expansion of for computing area, a substantial amount of research efforts has been directed at the application of Soft Computing techniques in engineering. Soft Computing denotes to the science of reasoning, intelligent and deduction that identifies and uses the real world sensations of alliance, associations, and organization of various quantities under study. The methods of soft computing are currently being used successfully in many domestic, commercial, and industrial applications. This article we provides summary of the state of soft computing techniques and defines the various application to produce specification according need of current generation.

Keywords: Soft Computing, Genetic Algorithm, Fuzzy Logic, Neural Network, Vector Machine.

1. INTRODUCTION

Technological innovations in soft computing techniques have brought automation capabilities to new levels of applications. Certifiable issues need to manage frameworks which are non-direct, time-fluctuating in nature with vulnerability and high unpredictability. The registering of such frameworks is investigation of algorithmic procedures which portray and change data: their theory, analysis, design, efficiency, implementation, and application [1]. In real world, we require several difficulties which we have no way to resolve rationally, or problems which could be solved hypothetically but really intolerable due to its obligation of enormous properties and huge time required for computation [2]. Soft Computing is combination of practices that were designed for demonstrating and discovery of answers for actual world issues. It is not easy to showed or too problematic for model, precisely. Soft computing is an connotation of methods that works synchronously and proposals, in one form or another, flexible information processing competence for handling real-life undefined situations. The basic impartial is to take advantage of receipt for nebulousness, uncertainty, approximate analysis and fractional truth in order to accomplish tractability, strength and low-cost clarifications. The controlling standard is to devise techniques for calculation that prompt a satisfactory arrangement with ease, by looking for a rough answer for a loosely or decisively defined issue [3] [4]. This articles is a summary of soft computing and their methods and defines some of the usually used methods to solve composite problems with soft computing approaches.

2. BACKGROUND

The contextual of education is an significant part of our research paper. It delivers the situation and resolution of the study. Hence there is essential for contextual study that donate to make projected system.

A. What is soft computing?

“Soft computing is a group of methodologies that aim to feat the lenience for imprecision and uncertainty to achieve tractability, robustness, and low solution cost. Its principal constituents are fuzzy logic, neuro-computing, and probabilistic reasoning. Soft computing is likely to play an increasingly important role in many application areas, including software engineering. The role model for soft computing is the human mind” [5]. Soft Computing (SC) speaks to a huge change in perspective in the points of figuring, which mirrors the way that the human personality, dissimilar to show day PCs, has an astounding capacity to store and process data which is inescapably loose, questionable. Delicate figuring isn't definitely characterized. It comprises of particular ideas and systems which plan to defeat the challenges experienced in genuine issues. These issues result from the way that our reality is by all accounts loose, dubious and hard to sort. For instance, the vulnerability in a deliberate amount is because of intrinsic varieties in the estimation procedure itself. The vulnerability in an outcome is expected to the joined and gathered impacts of these estimation vulnerabilities which were utilized as a part of the computation of that outcome [6].

B. Soft Computing Techniques

Certifiable issues need to manage frameworks which are non-direct, time-fluctuating in nature with vulnerability and high intricacy. The figuring of such frameworks is investigation of algorithmic procedures which portray and change data. Soft Computing is valuable where the exact logical devices are unequipped for giving ease, investigative, and finish arrangement. Logical techniques for earlier hundreds of years could show,

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and exactly dissect, just, moderately basic frameworks of material science, established Newtonian mechanics, and building. Following are the procedures which are portray in this segment:

1. Fuzzy Logic

Fuzzy logic is a method of calculating that is be contingent on "degrees of truth" more freely than customary "true or false" (1 or 0) Boolean logic on which the advanced PC is based [7].

Fuzzy logic includes 0 and 1 as excessive belongings of truth (or "the state of matters" or "fact") but also take account of the assortment of states of truth in among therefore, for illustration, the consequence of a assessment between two belongings could be not "tall" or "short" but ".38 of tallness."

The fuzzy logic works on the altitude of potential of input to accomplish the specific output.

- It can be actualized in frameworks with different sizes and capacities extending from little small scale controllers to substantial, arranged, workstation-based control frameworks.
- It can be actualized in equipment, programming, or a blend of both.

Fuzzy logic container applied as an clarification perfect for the physiognomies of neural networks, in adding to for generous a more exact clarification of their presentation.

The fuzzification border changes the crunchy input value into a fuzzy linguistic value. The guesswork train gets the fuzzy effort and the fuzzy rule base and crops fuzzy productions. The fuzzy rule base is in the form of “IF-THEN” rules involving linguistic variables. The last processing element of a fuzzy logic system is the defuzzification which has the task of producing crisp output actions [6].

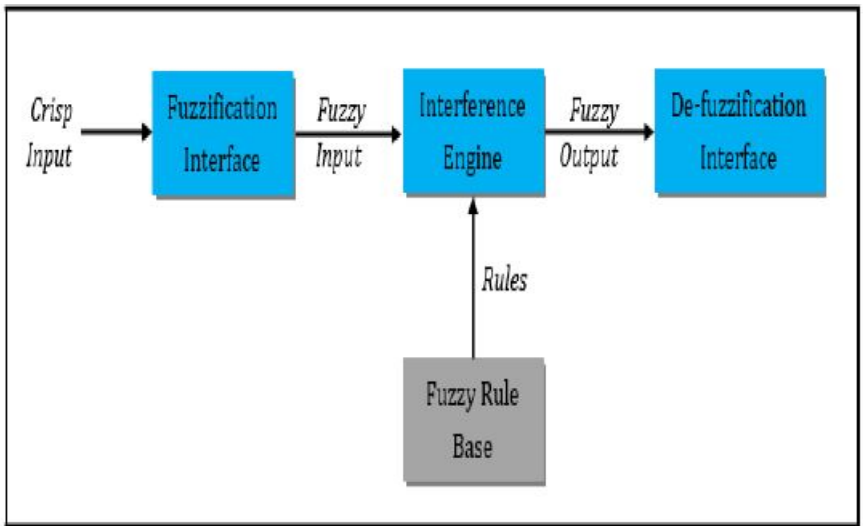

Figure-1: Fuzzy Logic System

2. Genetic Algorithm

Genetic Algorithms are invigorated by the scheme of regular resolve, which is an biological process in which more beached people will perhaps be victors in a contending domain. GA expect that the arrangement of an issue is a person, which can be spoken to by an arrangement of parameters. These parameters are known as qualities of the chromosomes and can be spoken to by string of double esteems. GAs is a pursuit system which begins with an underlying arrangement of irregular arrangements known as populace. Every person in populace is called chromosomes, which is a string of paired esteems. The chromosomes develop through progressive emphases, called ages. Amid every emphasis chromosome develop utilizing a few measures of wellness. At that point the cutting edge is made, where the new chromosomes canceled as springs, are framed by either consolidating two chromosomes from current age utilizing a hybrid administrator or altering a chromosome utilizing a change administrator. New age is shaped by willpower, in light of the wellness regards, a helping of the protectors and off-springs are rejected to keep the populace measure steady. After a few cycles the calculation joins to the best chromosome, which speaks to the ideal or sup-ideal answer for the issue [8].

The basic procedures in genetic algorithms:

- Initialization, where an underlying populace is made arbitrarily.
- Evaluation, where every individual from the populace is assessed and the wellness of the people are surveyed in view of how well they fit the coveted prerequisites.

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- Selection, where just the ones that fit the coveted necessities are chosen.
- Edge, where new separate are made by combining best parts of the present persons. To the finish of this it is trusted upon to make persons that are earlier to the wanted fundamentals. The procedure is rehashed from the second step until the point that an end condition is at last come to.

3. Artificial Neural Network

Numerous drives have stood complete in making intense frameworks, some motivated by natural neural systems. Authorities from many rational orders are delineation Artificial Neural Networks (ANNs) to take care of an assortment of issues in design acknowledgment, expectation, advancement, affiliated memory, and control.

More precisely, "A neural network is a unified gathering of simple processing elements, units or nodes, whose functionality is slackly based on the animal neuron. The dispensation ability of the network is stored in the inter-unit connection strengths, or weights, gained by a process of the version too, or learning from, a set of training patterns".

Neural networks establish a mainly positive approach in machine learning which agrees knowledge an unknown orderliness for a given set of exercise examples. They can contract with overseen or unconfirmed learning tasks; hence outputs or classes for the data points might be obtainable and the network has to study how to allocate given input data properly to the correct class in the overseen case.

Artificial Neural Networks (ANN), also called connectionism, neuro-computing or parallel distributed processing (PDP), bring additional method to be applied to problems where the algorithmic and descriptive approaches are not well suitable. Artificial Neural Networks are inspired by our present information of biological anxious schemes, though they do not try to be truthful in all detail (the area of ANN is not worried with biological showing, a diverse field). Some ANN replicas may, therefore, be totally impractical from a biological modeling point of view [9]. Figure 2 demonstrates ANN structure.

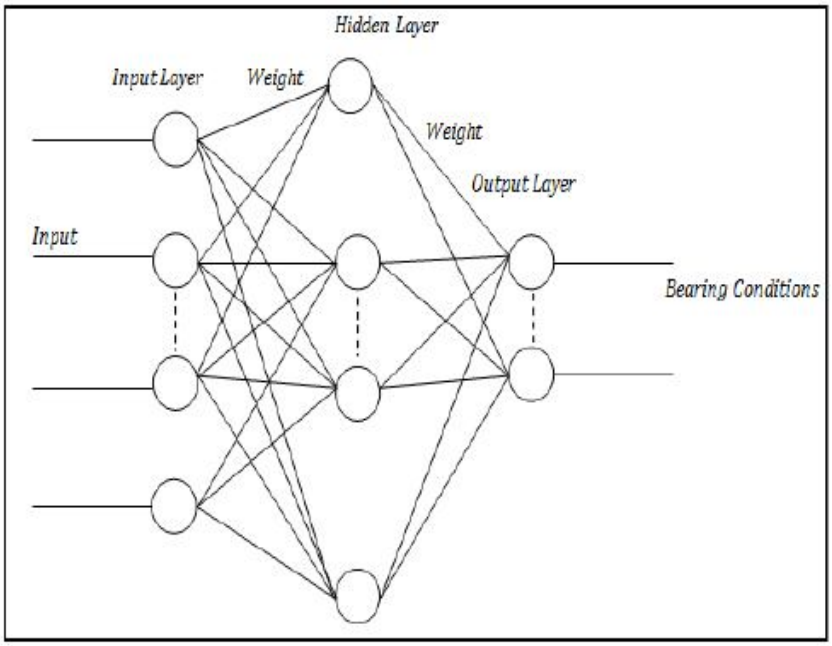

Figure-2: Artificial Neural Network

4. Support Vector Machine

A Support Vector Machine (SVM) [10] is overseen organization algorithm that splits data into classes in view of the most strained out edge between emphases in the classes. Straight SVM, the most usually applied, separates classes using a hyperspace given by w*x-b=y*Y is referred to as a linear separator which is trapped between upper class margin y = 1and lower margin y=-1. A binary SVM algorithm takes positive and negative examples of the training set and draws a hyper-plane to separate two classes [11].

The simple impression behind provision vector machine is exemplified with the example shown in Figure 3 In this example the data is expected to be linearly divisible. Therefore, there be a lined hyper plane (or conclusion border) that ruptures the points into two dissimilar classes. In the two-dimensional case, the hyper plane is simply a straight line. In belief, there are substantially many hyper planes that can separate the training data.

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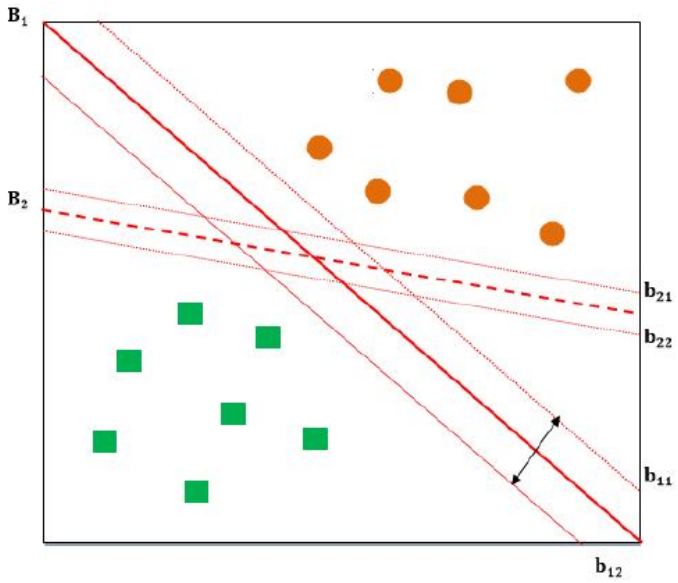

Figure-3: an example of a two-class problem with two separating hyperplanes, B1 and B2

Figure 3 shows two such hyperplanes, $B_1$and B_2. Both hyperplanes can split in to the exercise examples into their particular classes without committing any misclassification errors. While the exercise time of even the wildest SVMs can be extremely slow, they are extremely exact, owed to their ability to model multifaceted nonlinear decision boundaries. They are much less disposed to over appropriate than other methods.

C. Applications of Soft Computing

Soft computing methods have curved out to be one of talented tools that can give rehearse and practical preparation. There are some applications of soft computing [12] [13]:

1. Agricultural Engineering

Agricultural engineering is the designing control that applies building science and innovation to rural generation and handling. Agricultural engineering combines the instructions of being science, common, plant science and mechanical, electrical and substance designing standards with information of rural standards.

2. Biomedical Application

Biomedical application is a plan idea to medication and science. This arena looks to close the dump among building and medicine: It combines the outline and critical thinking aptitudes of designing with medicinal and natural sciences to propel social insurance treatment, including determination, checking, treatment and treatment.

3. Crime Forecasting

Crime forecast is an arranging device that oversees wrongdoing in our general public in various way. Wrongdoing is the infringing upon of guidelines or laws for which some overseeing specialist can at last recommend a conviction. Wrongdoings may likewise bring about alerts, restoration or be unenforced. By the assistance of wrongdoing conjecture we can lessen wrongdoing in our social orders.

4. Data Mining

Data mining is a part of software engineering which is the essential process of finding designs in wide informational indexes counting methods at the journey point of fake awareness, machine learning, insights, and database frameworks. The overall impartial of the information removal procedure is to remove data from an informational collection and change it into a justifiable structure for additionally utilize.

5. Image Processing

In imaging science, image making is some kind of flag treatment for which the gen is a image, for example, a photo or video outline; the yield of picture conduct might be either a picture or an preparation of attributes or parameters identified with the picture. Most picture preparing systems include regarding the picture as a two-dimensional flag and applying standard flag handling procedures to it.

6. Industrial Machineries

Industries machineries are apparatus that comprises of at least one sections, and uses vitality to accomplish a specific objective. Machines are generally fueled by mechanical, substance, warm, or electrical means, and are much of the time mechanized. This is utilized as a part of mechanical engineering.

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7. Pattern Recognition

Pattern recognition by and large plan to give a sensible response to every single conceivable information and to perform "in all probability" coordinating of the sources of info, considering their factual variety. Example acknowledgment is considered in numerous fields, including brain research, psychiatry, and ethology, intellectual science, and movement stream and computer science.

3. CONCLUSION

The bang of soft computing has been feeling gradually stronger in the modern years. Soft computing is playing more than ever significant responsibility in science and engineering, but ultimately its control may expand much farther. Intelligent systems and consequently soft computing methods are appropriate more imperative as the supremacy of computer processing devices increase and their cost is reduced. Soft Computing, or Computational Intellect, signifies a set of methods for information dispensation, useful in cases where old-style algorithmic techniques could not exists, or be too complex. This paper deal with different terminology of soft computing paradigm. Additionally, in this articles we defined numerous soft computing techniques and applications which is solely used in real time environment.

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A STUDY OF AUTOMATED DECISION MAKING SYSTEMS

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ABSTRACT
The decision making process of many operations are dependent on analyzing very large data sets, previous decisions and their results. The information produced from the large data sets are used as an input for making decisions. Then the decisions to be taken in day to day processes are expanding, the time taken for physical decision making is also expanding. In order to decrease the time, cost and to increase the competence and correctness, which are the most significant things for customer fulfilment, many organizations are accepting the automatic decision making systems. This paper is about the technologies used for automatic decision making systems and the areas in which automatic decisions systems works more competently and precisely.

Keywords: automated decision making, decision making technologies.

INTRODUCTION

The ERP systems will intersect all the sections of an organization and provides the information required for all workers in different departments for making better decisions. The ERP systems contain information only about what had previously happened, it will not cover the information of the present situation and about the upcoming. ERP systems use an analytical decision management system for setting sales goals, production levels, distribution plans. The automatic decision-making schemes are used to take judgments on management problems, which are tedious. Operative management is a well-supported applicant for automated decision-making systems since it has short term focus and repetitive. To deal with different parameters at different business stages, the ERP systems use different models of analytics for better decision making. The alteration between Analytical, Descriptive and Decision models used in ERP systems for analyzing data are given below.

Predictive models	Descriptive models	Decision models
• Predicts the relationship and patterns between explanatory variables and dependent variables and focus on a specific variable • Eg) Fraud Detection, Credit Worthiness	• Clusters the data elements with similar characteristics. Focus is on as many variables as possible • Eg)Profitability, Product preference	• Finds an exact outcome for a specific decision. Focus on specific decision • Eg) Scheduling, Resource Optimization,

Automatic decision-making systems are mostly used in business analytics and informatics. The decision-making systems can be automatic by applying certain business rules which are generated and functioned by business analytics. The judgments taken by the automated decision-making systems are part of the business informatics. The ADMS is very valuable in circumstances that require solutions to repetitive problems using electronically available data. The data mandatory for the ADMS must be very obviously clarified and structured. The business problems that are applied to the ADMS must be clear and well understood. The organizations use the ADMS to manage its interactions with its customers, employees, and suppliers. Organizations use the ADMS to improve its value, through each decision that is taken. The core goal of using ADMS has five key attributes-precision, consistency, agility and the reduced time and cost of making manual decisions. There are numerous amount of methods for decision making, in common they have three steps decision identification and modeling, development of an automated system, monitoring and handling the decisions to preserve the rules and prognostic analytics up to date.

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II. APPLICATION OF AUTOMATED DECISION MAKING SYSTEMS.

By learning automatic decision making systems in trades that contain banking, insurance, travel and transportation, we can understand that automated decision applications are effectively to generate useful solutions in a number of different business areas.

Product Configuration- it is one of the earliest application of ADMS. The ADMS will select a best and most proper answer based on the set of variables obtainable, which is hard to do manually. Eg) mobile phone users will be having numerous different service plans, the ADMS will find a suitable service plan for a specific customer.

Yield optimization- the airlines uses the ADMS to fix the prize of the tickets based on the obtainability of chairs and the day of acquisition.

Routing or segmentation decisions- By designing automatic sieves, some businesses are able to accomplish important development in productivity. Eg. insurance companies have recognized importance lanes to handle the insurance claims of regular consumers with good profiles.

Corporate and regulatory compliance- Many routine policy decisions such as decisive whether the person qualifies for insurance assistances.

Fraud detection- banking segments and government agencies services some automated screening to recognize credit card frauds.

Dynamic forecasting- By automating the request predicting the manufacturers are able to align their consumers estimate closely with their manufacturing and sales plan. Operative control- the ADMS are also used to intellect the physical and environment changes and replies quickly based on rules and algorithms. Eg. temperature, rainfall.

III. AUTOMATED DECISION-MAKING TECHNOLOGIES

There are various types of Automated decision-making technologies.

Rule Engines- rule engines will procedure a sequence of business rules that use provisional statements to address logical questions.

Industry-specific packages- the manufacturing exact set will produce automated decisions for queries faced by the organizations.

Statistical or numerical algorithms- these algorithms will procedure measurable data to arrive at its target. Eg) approval of the loan amount.

Workflow Applications- the workflow applications are software programs that allows information-intensive business procedures. After taking a decision the workflow system will pass the rest of the file through the essential steps. Eg) loan processing.

Enterprise systems- enterprise systems are software applications that computerize, connect and achieve the information movements and transaction procedures in the organizations. The automated decision systems in the initiatives will be used only in indefinite procedures. Decision making is the process of taking a particular action in reply to the problems faced by the organizations. Good decision will result in the sequence of actions that help the organization to be operative, the opposite is its converse. The growth or the failure of the organization be contingent on the decisions made by its associates. The decision-taking systems have four main phases:

Intelligence- searching for situations calling for decision making.

Design- discovering, developing and analyzing certain decisions. This will make the procedures to understand the problem, to produce solutions and testing of solutions for possibility.

Choice- choosing another or decisions from those variables available.

Review- Inspection of choices made previously. This model was later combined by George Huber into the distended model of the whole problem-solving operation.

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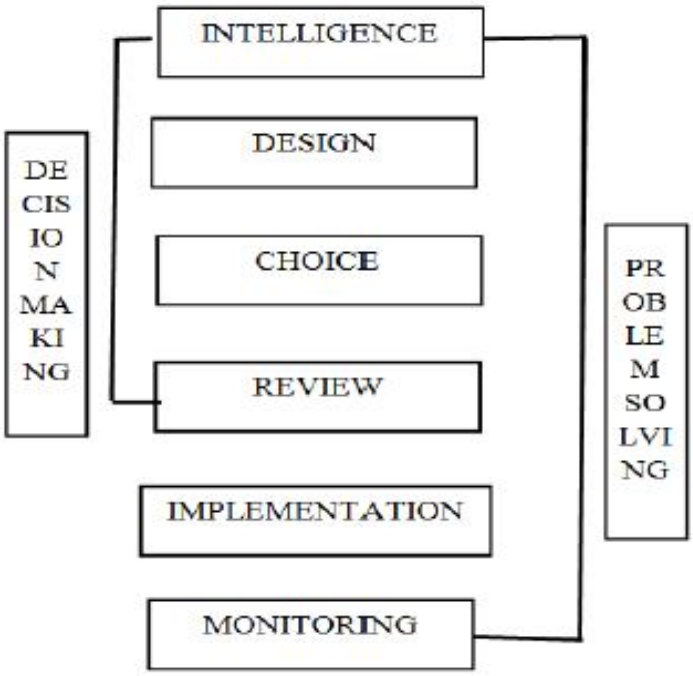

Figure 1

An expanded model of the entire problem-solving process

Though the computerized systems deliver accuracy, flexibility and prompt decisions for administrators, there are some problems that are handled by organizations. The lack of knowledge about the specifications, restraint, and variables of the systems is the biggest problem faced by the organizations. If the knowledge about the systems is not well understood by the organizations, then the systems will not provide the solutions expected by the executives. The Automatic decision-taking system must be calculated in such a way to inform the administrator to handle the decision making procedure if it lacks the essential data to make consistent decisions. The problem handled by the organizations about the computerized decision-making system is to find the expert persons who are able to build and sustain the automatic systems. Even though the automatic decision-making systems are improved and used universally and it has more advantages over manual decisions, it has particular restraints and many businesses fail to overlook those restraints and to maintain them consequently. Therefore, the corporations must carefully oversee the systems which they are applying and they must appreciate the solutions that are given by the systems.

IV. VARIOUS GRADES OF AUTOMATION IN DECISION MAKING SYSTEMS

Inexact decision-making tracks, the decision-making schemes are only partially automated and it alerts the operators where manual decision making is essential. The automatic systems directors the operators, using the information composed and such systems make willpowers through the decision-making process, while avoiding the terminated pathways and in some cases, the automatic systems will deliver a final decision. The automatic systems may also guide the operators when a manual decision is necessary by meeting and providing applicable information for the operators to take an accurate decision. In some cases, the system may gather and store the applicable information, and records the causes of the outcome touched by manual decisions. Automatic systems can be used in diverse ways in the organizational decision-making system. For example;

- To take the decision.
- To mention a decision to the physical decision-maker.
- To guide an operator through significant facts, regulation, and policy, closing off inappropriate paths as they go.
- It can be used as decision sustenance systems, providing valuable information for the decision-maker during the decision making procedure.
- It can be used as a self-assessment tool, providing preliminary assessment for individuals or internal decision-makers.

The decision making with a partially automated system model used in lending libraries.

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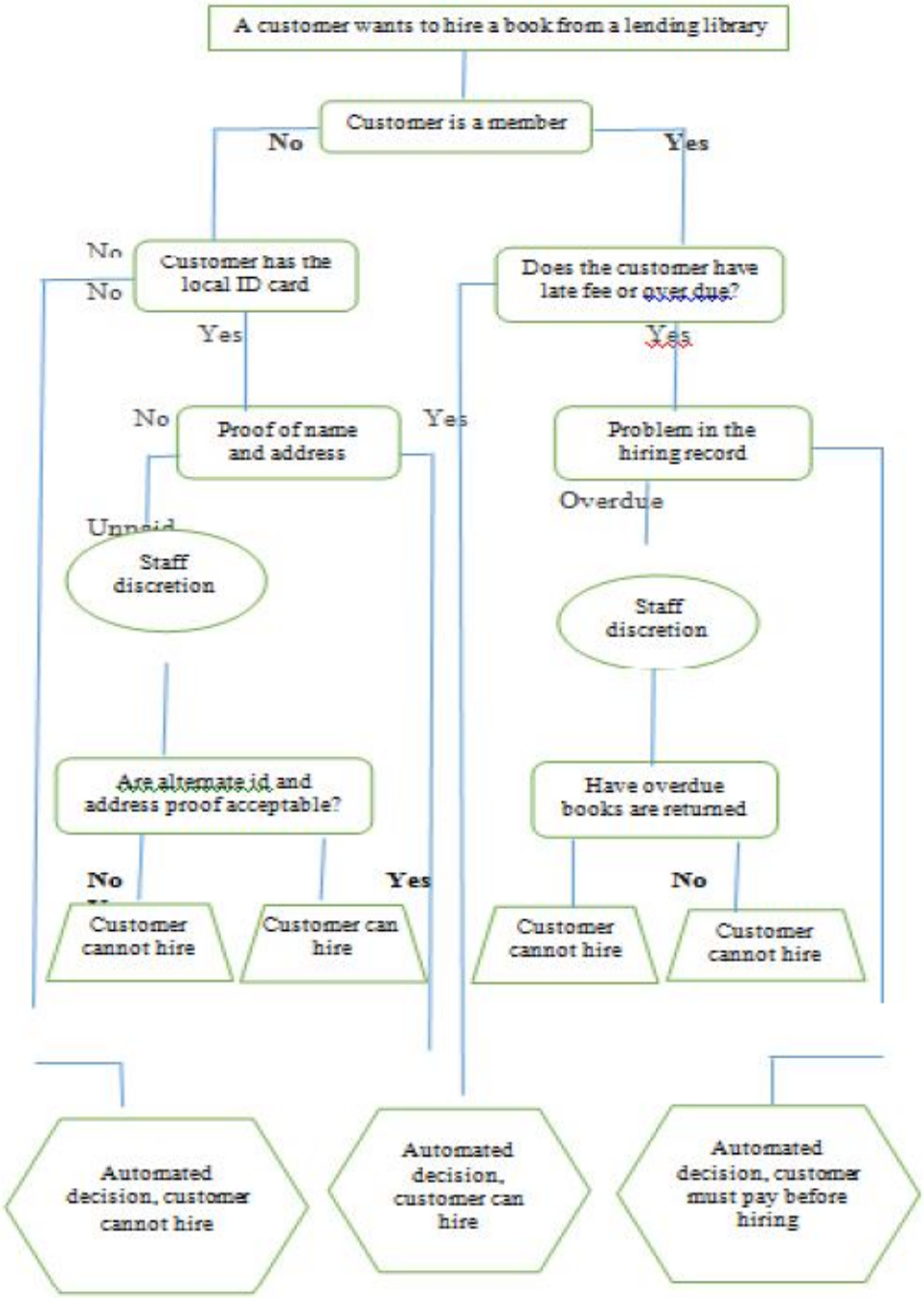

V. CONCLUSION

The more data that occur, there is more the possibility for automation. The organizations can take Operative decisions only if it covers correct, timely and pertinent information. The Management information system simplifies the administrations scheduling, control, and working functions to be carried out adequately by providing the exact and appropriate information needed to ease the decision-making process and MIS also helps the decision makers by providing wide range of options for making their preferred choices. This confirms that whatever the selections are occupied by the decision makers, the results will be positive. Many decision makers tend to use management information system while taking tough business decisions. The decision making system focus on decision making whereas management information system focus on information. The management information system goals only on effortlessly structured data but decision making system targets on structure as well as semi structured data.

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A STUDY ON DIGITAL MARKETING AND ITS IMPACT

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ABSTRACT
With the ever increasing development in technology, the use of Digital Marketing, Social Media Marketing and Search Engine Marketing is also increasing. Digital Marketing is used by the marketers to promote the goods and services to the marketplace. Digital Marketing place an important role in increasing the sales of goods and services. The purpose of this research is to study the impact of Digital Marketing, how it's an important tool for both marketers and consumers. We have also studied the impact of Digital Marketing and its influence on consumer buying behavior. This study was done on base of an organized survey for primary data and the sample scope is 100 respondents.

Keyword: Digital Marketing, Promotion, Buying Behavior, Marketing Communication.

1. INTRODUCTION

Digital Marketing is generally a wide term which consists of Internet Marketing, Social Media Marketing and Search Engine Marketing. People are becoming highly social and also the use of Internet, Social Media and Applications are increasing and becoming a necessary part of daily activities of every person. Digital Marketing helps a marketer to reach their products for customers via various channels like E-Mail Marketing, Social Media, Websites, E-Commerce, etc. A marketer, before launching any products or services, can conduct a survey online and take responses from potential customers, so that a marketer can launch according to the needs of customers, after analyzing the responses given by them. In this highly competitive market and technological advancements marketing practices have been changed from traditional practices to digital marketing. Digital marketing is a tool which can be used for expanding the business globally. With the help of digital marketing a buyer can also compare a product with another product and it also allows 24 hours of services to purchase, even it allows customers to return a delivered product if they are not satisfied with it.

2. LITERATURE REVIEW

Kaini (1998) Innovation of novel technology i.e vide internet, assists in opening the gateway for dealers and do online marketing to attain their business goalmouths. Song (2001) more choices are available for customers. So it is problematic to an initiative to build a brand image. Online advertising is a powerful marketing tool used for creating a brand image and helps the corporate to increase the sale up to many extents. Mort, et al (2002) Due to progression in technologies and market subtleties, the digital market is rapidly growing. Toe (2005) the review was conducted by companies in Singapore and conclusions revealed that digital marketing is effective marketing tool for gaining results. Kuku and Krishnamurthy (2007) the study exposed that the internet and virtual groups help the consumers, societies, and marketers to access and share information with others. It too aids in improving communication skills also. Basheer et al. (March, 2010) The Education is on the effect of mobile publicity on client acquisition decisions. Conclusions revealed that there is an optimistic rapport between apparent utility of advertisement and customer purchase choice. Kee(2008); Godes & Silva(2012) The training discovered that 90% of customers read online analyses of another customer before building a purchase choice. Consumers read at least four reviews before making their final decision of purchase. Reviews play important role in a purchase decision.

Fisch (2010) In the world, there are approximately 1 billion monthly active users of facebook. After two years of facebook introduction, there were 50 million users. Average 31 billion enquiries on google. 1000 internet policies used in 1984 and 1,00,00,00,000 internet plans used in 2008.

3. OBJECTIVES OF THE STUDY.

1. To Study the influence of Digital Marketing on Consumer buying behavior.

2. To study the alertness of Digital Marketing.

4. HYPOTHESIS OF THE STUDY.

H01: There is no vital association between monthly income and product preference to buy over Digital Channel.

H02: There is no important relationship between Customer Satisfaction and product buy through Digital Marketing.

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5. RESEARCH METHODOLOGY.

To Study the Influence of Digital Marketing on numerous bounds, A Organized survey for gathering primary data. Primary data was placid from 100 respondents. Respondents are selected from Mumbai District, Maharashtra. Primary data in structured format was collected via direct questioning to respondents, which is direct through the survey method. Sample Size for this study is 100 who are purchasing products or services through a digital channels. The data was analyzed and the hypothesis is tested with Statistical tools like the chi-square test.

6. RESULTS AND INTERPRETATION.

After collecting data from respondents with the help of a structured questionnaire, the following are the results interpreted.

6.1 Responses from Online Buyers

Several questions were asked to the respondents on their Age, Monthly Income, Occupation, etc. for understanding their profile and responses. The table under is taken on the basis of the comebacks.

	Category	No. of Respondents	Percentage of Respondents
Gender	Male	73	73%
	Female	27	27%
	Total	100	100%
Age	Below 18 years	15	15%
	18-30 years	28	28%
	31-45 years	35	35%
	Above 45 years	22	22%
	Total	100	100%
Profession	Employee	42	42%
	Business	25	25%
	Students	6	6%
	House-Wife	19	19%
	Any other	8	8%
	Total	100	100%
Monthly Income	Below 100000	38	38%
	100000-25000	24	24%
	25000-50000	10	10%
	Above 50000	28	28%
	Total	100	100%
Frequency of Online Purchase	Once Annually	13	13%
	2-5 Purchases Annually	47	47%
	6-10 Purchases Annually	25	25%
	Above 10 Annually	15	15%
	Total	100	100%
Reasons for Online Shopping	Easy Buying Options	35	35%
	Wide Varity of Products	22	22%
	Various Methods of Payments	17	17%
	Lower Prices	21	21%
	Others	5	5%
	Total	100	100%
Influence of Digital Channels to buy more	Social Media	57	57%
	Websites	18	18%
	Emails	5	5%
	Advertising	16	16%
	Others	4	4%
	Total	100	100%

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What kind of Product you would prefer to buy through Digital Channel	Convenience Goods	15	15%
	Shopping Goods	72	72%
	Specialty Goods	13	13%
	Total	100	100%
Customer Satisfaction in Purchase through Digital Channel	Strongly Agree	38	38%
	Agree	55	55%
	Neutral	5	5%
	Disagree	1	1%
	Strongly Disagree	1	1%
	Total	100	100%
From which Digital Channel you bought products	Social Media	21	21%
	Websites	51	51%
	Email	8	8%
	Advertising	15	15%
	Others	5	5%
	Total	100	100%

6.2 Chi Square Test: Relationship between monthly income and product preference to buy through Digital Channel.

To Study the Relationship between monthly income and product preference to buy through Digital Channel, the clubbed table is as follow Table 2: Relationship between monthly income and product preference to buy through digital channel.

	Convenience Goods	**Shopping Goods**	**Specialty Goods**	**Total**
Below 10000	7	29	2	38
10000-25000	4	18	2	24
25000-50000	3	3	4	10
Above 50000	1	22	5	28
	15	72	13	100

The data can be easily interpreted from the above table 2. Hypothesis testing is done to be more précised. H01: There is no important association between monthly income and product preference to buy over digital channels. According to the scheming, the intended chi-square figure is 15.2929. The p-value is .018097. The result is noteworthy at $p < .05$, with a 0.05 level of Implication. Henceforth the null theory is excluded and there is a substantial relationship between monthly income and product preference to buy over digital channels.

6.3 Chi Square Test: Relationship between Customer Satisfaction and product buy through Digital Marketing

To study the relationship between Customer Satisfaction and product buy through Digital Marketing, the clubbed table is as follow.

Table-3: Relationship between Client Gratification and product buy over Digital Marketing

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Total**
Social Media	10	11	0	0	0	21
Websites	20	31	0	0	0	51
Emails	3	3	2	0	0	8
Advertising	4	8	22	1	0	15
Others	1	2	1	0	1	5
Total	38	55	5	1	1	100

The data can be easily interpreted from the above table 3. Hypothesis testing is done to be more précised.

H02: There is no significant relationship between Customer Satisfaction and product buy through Digital Marketing. According to the scheming, the intended chi-square figure is 41.459. The p-value is .000475. The consequence is important at $p < .05$, with 0.05 level of Implication.

According to the above analysis, the Null hypothesis is rejected. In further arguments, there is an important relation between customer satisfaction and buying the products through the Digital channels.

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7. CONCLUSIONS

With the Research conducted, it has been found that there is a relationship between monthly income and the products purchased by them. Scheduled Income of people shows a significant part to buy diverse products from side to side Digital Channel. It has also been found that there is a significance difference between the satisfaction levels of customer with purchasing products online. Most of the Customers are satisfied with the products purchased through Digital Channel. A company can do lot more through Digital Marketing if they understands and delivers what consumer needs.

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A SURVEY ON HUMAN ROBOT INTERACTION

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ABSTRACT
HRI abbreviated form of Human Robot Interaction has newly received significant attention in the academia, in laboratories, in technology, in IT corporations and over the broadcasting. Due to this, it is necessary to current a review of HRI to assist as a class to persons exterior from the field and also to endorse discussion of a unique vision of HRI inside the arena. The aim of this survey is to present an integrated behavior of HRI related problems, to find out the key aspects, and discuss challenges or problems that are possible to shape the field in the near future. However, the review shadows a review structure, the aim of awarding an articulate picture like story of HRI, a well explained and written, interesting and significant paper. Along with writing this survey, there is need to think on the descriptive side of thinking from all angles including the challenges that are faced in HRI. Also, the cross-platform applications will be studied. The survey tries to shots to include papers among domains such as universities, government, industrial labs, countries that contribute towards HRI, individuals, robotics, intellectual thinking and design.

Keywords: Artificial Intelligence, Chatbot, Computers, Application, Technology

INTRODUCTION

Human Robot Interaction (HRI) or we can say exchange of commands is a field where dedicated study happens to understand, design and evaluate robotic systems for use for or with human beings. Interaction as the word states is a communication between robots and humans. There are several ways for interaction between a human and a robot, but this also depends on the factor of whether the human and robot are in close vicinity to each other or not.

As on this we can categorize the interaction as below:

Remote interaction [1]: The interaction between robot and human happening is different space, time and location.

Proximate interaction [1]: The interaction between human and robot happening in same location or room.

Variety of applications or fields are there where human robot interaction can come in picture. To detail more on if we consider the field of education, we can have robot been present in administrative office or department acting as a super guidance interactive robot who can help students and staff to have the relative information regarding the admission process, fee structure and examination. Moreover in the field of medical there can be a robot interacting with the doctor on which medicine need to be given for a particular disease and the duration for the same. We can extend the scope as and where we need but the volume to do survey in this field is vast, hence only a basic survey can be covered in this paper and rest will be kept over for near future.

At this point of survey, presentation on basics of HRI will be detailed. Human Robot Interaction (HRI) has grabbed a boon in fast few years just to provide a simplicity in day-to-day work. These days there are robots available in market for household tasks also. For example a robot with help of instruction can cut the lawn, water the tress and much more. Another robot who can clean the home acting as a vacuum cleaner.

GENERAL OVERVIEW OF ROBOTS

The term robot was originated from the Czech word “robota” which means a forced labor who has to follow each and every instruction of human and perform the similar task. The word robot was coined by a Czech novelist named Karel Capek [3]. This was in evolution around somewhere in 1992’s. This is form where the concept of robots came in picture and now till date we are in era where most of the work is done by robots or we can say most of the things are automated now. A robot can be fully automatized and can be as like a human interacting with human or we can a well programmed robot to do only pre-loaded tasks.

We can comprise a robot who has following key components inherited as below:

Sensors

A robot is designed in such a way that it can sense its environment, the directions in which it can travel. It can also detect objects or hurdles in its way.

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Movement
The robot should be able to move on the edges or sides by sensing the environment. It can perform rotations and also come up with angular movements.

Actuator
When is input is been provided by sensing the environment, the actuator will help to move or act the robot accordingly representing an output been performed.

Intelligence
Of course the robot must be intelligent enough or the program must be strong enough to manipulate the actions or outputs as per the change in inputs.

Controller
This acts as a heart of any of robot. Entire working deals around this. The tracing of path and accordingly making a move happens only when the controller will give right instruction.

Size and Shape
Size and shape do matters a lot. The size of robot should not exceed and should meet the application requirements.

supplied into the robot‘s movement.

LITERATURE SURVEY

HRI is a field that has emerged during the early 1990s and has been characterized as:

"Human—Robot Interaction (HRI) is a field of study dedicated to understanding, designing, and evaluating robotic systems for use by or with humans " [2]

(Goodrich and Schultz, 2007, p. 204).

What is Human-robot interaction (HRI) and what does it try to achieve?

"The HRI problem is to understand and shape the interactions between one or more humans and one or more robots". [2]

(Goodrich and Schultz, 2007, p. 216).

A brief survey, dig on history and research have made the new era of HRI move to next level. The evolution of robots eased the life of humans letting all atomization take up the technology. This technology was evolved in late 20th century, it is vital to note that the belief of robot-like behavior and its inferences for humans have been around in our religion, mythology, philosophy and fiction by centuries. The word “robot” originated from the Czechoslovakian word “robota” which means labored work.

Human robot interaction is a combination of topics science fiction and academic speculation even before the existence of any robots. Majorly HRI revolves around the knowledge of human interactions or commands.

Robots are synthetic bots with abilities of observation and action in the technical world often referred as workplace by researchers. The use of this technology is been implemented majorly in industries and also for home atomization.

The new domains like medical, military, rescue, security and many more of applications indicate a closer interaction with the user. The concept of closeness here means the human and the robot as they share same workplace, they also share the tasks and implement them to achieve a goal. This is made possible only with the help of research done previously or by model theories been proved earlier.

We can improve this and take it to next level with the help of AI (Artificial Intelligence). By this we can improve the interaction with robots with help of face recognition, fingerprint sensors, gestures, emotions, expressions, so on and so forth.

APPLICATIONS

- Rehabilitation robots for assistance
- Wheelchair robots and walking robots for mentally handicapped people
- Companion robots to guide the needy humans
- Educational robots in various universities and educational institutes

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- Space exploration
- Field robotics
- Home and companion robotics
- Hospitality
- Rehabilitation and Elder Care
- Robot Assisted Therapy (RAT)

In military and police, humans act as commanders, and robots are responsible for information acquisition, bomb destruction and other strategic jobs

CONCLUSIONS

Human robot interaction is an emergent field for research and implementing variety of application. The field as like others does includes many challenges and problems, but also has solution which can be dig out with high potential with positive social impact. Achievement of safe Human Robot Interaction is one of the imposing tests in the field of robotics. As every technology has and can be used for negative purpose, main moto should be the application designed should not harm anyone in any case. Hazardous robot have also been implemented successfully with “safe” robots concept.

FUTURE ENHANCEMENTS

In this growing technology world, sometimes there is a threat whether in late centuries whether the superintelligence will take over from the humans and begin to work on their own. In this era, we can take up that later it will be world working humans with machines and not “human against machines”. Giving up some advance controls will make robots best teammates and better companions will permit us up to make other more complex, more meaningful, more relevant decisions. But this may also bring new challenges, dangers, threats and new questions.

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ARTIFICIAL INTELLIGENCE APPLICATIONS IN MEDICINE

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ABSTRACT
One of the most discussed topics of the present time is artificial intelligence. Today's burning issue of artificial intelligence is, "It will be helpful or harmful for a human being." This research paper analyzes the health benefits of artificial intelligence. This explores how artificial intelligence supports the medical field as well as how the health of patients is influenced by the use of this common technology in diagnosing diseases, treating patients, eliminating errors and being present with patients remotely. Finally, the paper shows how artificial intelligence can influence the science of medicine.

Index Terms: Artificial Intelligence, medical field, clinical diagnosis, treatment, human error, health.

NOMENCLATURE
Define all the abbreviations that are used in the paper and present a list of abbreviations with their definition in Nomenclature section. Ensure consistency of abbreviations throughout the article. Do not use any abbreviation in the paper, which has not been defined and listed in Nomenclature section.

1.0 INTRODUCTION
Computer systems have had a tremendous impact on health sciences in this digital age. Health professionals and patients are assisted by smart computer systems. Artificial intelligence can manage a large amount of medical data and information among all the systems. Artificial intelligence is the philosophy and design of computer systems capable of performing tasks such as visual perception, speech recognition, decision-making and language-to-language translation that usually require human intelligence (Google Definition). Artificial intelligence improves any medical field. As reported by BBC News health reporter Jane Elliot (2009), artificial intelligence would assist doctors in action and would be safer and better[1]. Artificial intelligence will also treat patients with cancer who are 230,000 a year in the US[2] in care. The goal of this research paper is to provide a broad view of this interesting field of artificial intelligence and how it provides great medical assistance. This research paper would explore artificial intelligence in medical diagnosis, medical treatment, human error reduction, artificial intelligence virtual presence, and the potential of artificial intelligence in medicine.

2.0 AI IN MEDICAL DIAGNOSIS
Artificial intelligence helps to diagnose medication quickly and accurately. Extensive medical diagnosis is one of the most important things for treating patients as it is the first step towards treating patients and helps to reduce mortality rates. Simple, precise and reliable medical diagnosis can help improve the health of patients.

According to Macdonald (2017), skin tumors can be detected more reliably and more rapidly by robots such as Husky[3]. Robots have treated diseases in many cases and it is as effective as human doctors. A robot had 340 brains treated for MRI and was 100% accurate[4]. Therefore, AI can diagnose diseases by seeing pictures of affected areas of the bodies of patients.

Blood testing is terrifying for those who hate needles. Also, it takes a lot of time and more than one attempt to find a good vein for the nurse to perform the procedure. Veebot, a blood drawing robot should allow healthcare to conduct this procedure in a timely manner[5]. It takes only a minute for Veebot to draw blood, and tests show that Veebot can locate a vein with an accuracy of 83 percent, which is as good as a nurse.

A proper diagnosis of medication can save many lives. Approximately 400,000 deaths occur in the US due to decision-making mistakes by physicians (Journal of Patient Safety, 2014), leading to medical diagnostic errors. AI can help doctors make better choices when clinically diagnosing a patient.

AI could warn doctors to exacerbate the situation of the patient. Bloch-Budzier (2016) reportedthat AI advised patients with acute kidney injury to doctors[6]. Therefore, AI helps doctors treat patients carefully in every way possible.

It can be found that robots assist doctors in the diagnosis of cancer. Most people are dying today simply because of the incorrect medical diagnosis. Baranuik (2016) states that one in 75 men and one in 150 women will be diagnosed with oral cancer by Google's artificial intelligence[7]. Therefore, AI is used all over the world, especially in medicine.

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Radiology is a part of healthcare. It is a must in order to treat a patient. The first artificial cardiac imaging intelligence developed by Arterys in 2017[8] was licensed by the Food and Drug Administration. Anna Fernandez, Medical Informatics / Precision Medicine Lead at Booz Allen Hamilton said that in only three years people will have artificial intelligence in clinics. Artificial intelligence can take over repetitive tasks and treat basic cases.

There are actually lots of robots being tested to see if they can function in the medical field and the findings are amazing. Death rates have fallen, and the explanation for this is clearly to use AI for medical diagnosis. The first phase of treatment is therefore medical diagnosis, it should be as accurate as possible. It is possible to achieve successful treatment by using AI in the diagnosis.

2.1 AI IN MEDICAL TREATMENT

Artificial intelligence may shorten the time required for treatment and help get effective care. Precision is one of the treatment plan's important steps. Treatment plays an important role in the lives of patients. When recovery time can be through, a patient's mental health will be improved. More probably, artificial intelligence will help health care shift beyond traditional medicines, one medicine works for everyone, clinical approaches to customized treatments, tailored therapies, and special compound medicines. This is called "Medicine of Precision."

As per Chris Baranuik (2016) a Technology reporter, artificial intelligence is expected to reduce the time of treatment[7]. Artificial intelligence will only take 1 hour to complete the procedure rather than 4 hours. By using artificial intelligence, better treatment plan and precision can be achieved. However, scientists at the Max Planck Institute are working with unusually micro-sized robots, meaning they are smaller than a millimeter, which will move through the body fluid of the patient and could be used to deliver medicines or other medical relief[8]. Such robots are designed to swim through the bloodstream or through the eyeballs surface. It's going to be a medical history revolution.

Through providing accurate diagnosis, AI can help reduce the adverse effects of medicines. The lives of patients can be rescued with the help of AI.

Using a smartphone camera[9], AI can prescribe drugs. Nearly everyone now has a mobile, and if it can be used for treatment, it will be of great help for people who are unable to go to doctors. In fact, AI will replace Alzheimer's memory problems and patient problem-solving capabilities[9]. AI supports and will continue to do the same for the medical field.

Chris Baranuik (2015) says Google's AI is going to treat cancer of the head and neck[7]. It's a complicated task to treat cancer. Doctors will be helped with AI and the treatment time will also be reduced. In addition, oncologists, particularly cancer specialists, will have great help from AI in making suggestions for treatment as scientists are working very hard to make AI effective in cancer and tumor care.

Service animals are commonly known to reduce anxiety, decrease isolation, and deflect attention from pain. Paro, an immersive robot, is a baby trumpet seal covered with soft synthetic fur that makes one feel relaxed and they feel like they meet a real animal[8]. It has been observed that the pressure felt by both patients and nurses can be reduced.

Hence, artificial intelligence supports the medical profession by making an accurate treatment protocol and speeds up the treatment process which saves most patients ' lives. Artificial intelligence can make choices about treatment and recommend medicines. Artificial intelligence can support clinicians.

2.2 AI REDUCE ERRORS OF HUMAN

The Centers for Disease Control and Prevention estimated in 2016 that the 3rd major cause of death in the United States was clinical errors and misdiagnosis. Using artificial intelligence, human physician mistakes can be prevented. About 400,000 deaths are caused by medical errors in the US (Journal of Patient Safety, 2014). It can be understood that just because of of the mistake of the doctors, a large number of people die. AI will help to reduce the mistake of doctors and save many lives. Generally, patients are given prescriptions based on questions or regular check-ups while seeking medical help from healthcare professionals and physicians. The method provides a room for mistakes and wrong diagnosis because doctors are human and need to treat hundreds of patients in one day. But there will be less risk of failure with sophisticated artificial intelligence assistants. Artificial intelligence will be able to more effectively support patients as they will have the abilities to treat a person quicker than doctors in humans.

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A person alone is unable to make any decision. The machines mentioned by Diprose and Buist (2016) are superior to humans alone[10]. Machines can make better choices than humans. AI will not overlook what doctors usually miss, according to McFarland (2017)[2]. We will properly identify patients, which will aid in diagnosing and treating patients to achieve 100 percent accuracy. Machines are man-made, which is why it can be fixed if the computer has any problem. Machines are therefore modified, making fewer mistakes than a human being.

AI makes 72% more accurate diagnosis than doctors ' high error rate[11]. In addition, AI is capable of scanning hearts and is remarkably accurate. AI supports people in every way, e.g. in healthcare, to growing people's problems. It can be argued that AI can make incredible health improvements. In addition, in care and treatment, AI performs better that can reduce overall error[10].

According to a 2016 report by Frost and Sullivan, the use of artificial intelligence has decreased medical errors by 30% -40% and care costs by as much as 50%. According to the WHO, medical errors and inaccurate medical diagnosis are among the top 10 causes of death worldwide and 1 in 10 hospital admissions results in a medical error and 1 in 300 admissions lead to death due to medical errors. Artificial intelligence is the hope for people in this situation, undoubtedly the best way to eradicate these errors and tragic events. In reality, artificial intelligence has changed our view of health care, and as much as possible it will support health care.

It is not possible to eliminate mistakes in the medical field. But with AI's support, this issue can be reduced. It also supports the medical field by quickly and easily making all medication procedures.

2.3 AI's VIRTUAL PRESENCE

Doctors can communicate with patients and staff without being there with a remote presence robot. AI is a great help to patients almost all the time in need of doctors. Physicians can't always be there with patients, but computers can. AI can now be a robot with a digital appearance. We will better support patients and aid them in their care.

According to Borukhovich (2015), AI can remind patients to take medicines[9]. Medicine is a patient's most important thing. AI can help by asking them to take medication to treat patients.

For fact, individuals may need doctors at any time. In this way, AI can help. Whenever or wherever doctors are needed, AI can support them by being doctors in the pocket[12]. Pocket doctors, such as smartphone apps, can be available day or night at any time. It will help patients who may get sick late at night when no physician is available. The artificial existence of AI is therefore going to help people a bit.

AI can prescribe medicines[9] and will ensure that patients take adequate medicines[13]. This can help patients, such as Alzheimer's patients, who are always relying on others. AI, which will alert them to take medications, will support them. Doctors are not always able to connect with patients upon discharge. AI can also solve this issue. Post-discharge patients will be followed up by machines[13] and it will help to improve patient health faster. It is doubtful that post-discharge patients will take care of themselves. AI will therefore be taking care of them and helping them to be well.

IBM's artificial intelligence software, Watson, has been developed and put to use in cardiology and cancer care. As part of plans to use its artificial intelligence technology to penetrate the health market, Microsoft has also announced that it will release a new healthcare division at its Cambridge research facility. In its study plans, monitoring systems are included that can help keep patients out of hospitals and large trials on conditions like diabetes.

In addition, the online existence of AI is a great help for both patients and doctors. Doctors are going to get rid of extra work and have free time from work as well.

2.4 AI FOR MEDICINE FUTURE

AI is going to reshape healthcare. AI's future is bright and it's going to help doctors and patients. It can substitute doctors as well. For 100 percent precision, AI can now do anything and everything in medicine, such as diagnosis, course of treatment, and patient care.

Giant healthcare players have already begun incorporating artificial intelligence into their medical imaging software systems from IBM Watson to Philips, Agfa, Siemens to GE. In 2017, the FDA, the U.S. Food and Drug Administration, issued the first electronic intake monitoring tablet. This drug, Abilify MyCite, was developed by the Japanese Otsuka Pharmaceutical. It is improved by Proteus Digital Health's corresponding mobile mask. The patch must communicate with the ingestible sensor with the patient's consent and say if the drug is being administered, the data will be transmitted to the patient's smartphone or tablet. The aim is to assess adherence to medications in the treatment of depression, depressive and bipolar I disorder acute care.

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Baranuik (2016) suggests that Google's AI can evaluate 700 radiotherapy patients ' MRI and CT scans[7]. It can also distinguish between healthy tissues and cancerous tissues. For the future, scientists are trying to advance AI's work. AI is making rapid progress, and it is expected that in the future it will reach more people.

Surgery is one of the medicine's important parts. Elliot (2009) believed surgery would be scarless in 10 years[1]. This means that cutting the skin will not be needed and surgery will be completed. Women today talk about scars left behind due to surgery. This problem is solved through the use of AI. Therefore, only AI[10] can perform diagnosis and treatment. For 100% accuracy, AI can identify diseases and its treatment decisions are correct.

AI will make cancer scanners for smartphones[14]. There are health apps that can provide medicine, for example, Drugs and Medications, Ada-Personal Health Companion. It is easy to use these programs anytime and anywhere. If a person has fallen ill and no one has to take him to a hospital, these applications will bring him first aid. Such technologies will be more developed in the future, and support will be given to people, and it can save lives for many people. In summary, AI's promising medical future will benefit not only patients, but doctors as well.

2.5 PERSONALISED MEDICINE BY AI

According to the United States National Medicine Library, Precision Medicine is "an arising form of treatment and preventing disease that takes into consideration individual diversity in genes, environment, and lifestyle for each individual." It takes precision medicine to the next level with artificial intelligence and increases patients ' accuracy and end result prediction.

With AI, the ability not only to predict results, but also to predict the likelihood of future patients to have diseases is a major benefit for precision medicine. Artificial intelligence can help in educating medical professionals to know what to look for before a disease shows symptoms by better understanding why diseases can occur and in what environments they are more likely to occur. It is revolutionary for health care and the lives of many to be able to assess the risk of disease in patient populations.

Precision medicine can really change the lives of many people and even save their lives, and the use of artificial intelligence can dramatically increase these results. It can also make treatment options more accessible and affordable to those who may not be able to receive such treatments at this time because of price and health insurance. For precision medicine to be perfect, there are many hurdles to overcome, but artificial intelligence can help bring us closer to those objectives.

3.0 CONCLUSION AND FUTURE WORK

AI substitutes for doctors and reduces mortality rates. AI will modify the primary role of doctors over the next few years. This provides support to resolve other healthcare issues. Therefore, AI is useful in diagnosing, treating illnesses, reducing human errors, and with patients it will also be practically present. Further research is needed to understand AI's ability to take risks. It will help people understand how much risk AI can take as medicine has many dangerous tasks.

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AN ANALYSIS CUM STUDY ON IMPACT OF E-COMMERCE ON INDIA'S COMMERCE

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ABSTRACT
E-commerce involves web dealings. E-commerce provides multiple advantages to the consumers in variety of convenience of products at lower value, wider selection and saves time. the final category of ecommerce will be softened into 2 portions: E-Merchandise & E-finance. Many companies, organizations, and communities in Republic of India do business victimization E-commerce and additionally are adopting M-commerce for doing business.

Ecommerce has huge business growth in India. Increasing web users have intercalary. The business Unanimity is affix degree inflection purpose. The market of ecommerce in India was regarding to the value it was $ $3.9 billion (in 2009) and then grew up to $12.6 b (in 2013).The e-selling section was value US$2.3 in line with Google Republic of India (In 2013). By 2020, Republic of India is predicted to get $100 billion on-line retail revenue out of which $35 billion can attire sales are ready to grew up fourfold in coming back years. The paper deals with the analysis studies on the "Impact of E-commerce on Indian Commerce".

Keywords: E-Commerce, Population, Finance, Impact, Economics, Electronic, Growth Introduction India has emerged in concert of the main players on the new international business scene.

INTRODUCTION
Its unstoppable economic process in 1991 it was come out as the main target of getting and increasing main scientist's attention space of international level business and high level management. "To review the impact of e-commerce on Indian Commerce that has been revealed in prime business and management journals", with the aim of knowing what area unit the foremost powerful papers, what area unit the problems that have received the foremost attention, that area unit the most findings or what a lot of has to be drained terms of research this is why the article is written. India has seen a difference in the digitalization (in the last decade) and this has given a rise to fresh business opportunities by evolving business models (Dr. Anand Prakash, a study on impact of e-com indie Vol 9 Issue 1, 2018). The aim to this paper is to analyse how ecommerce getting the change in daily life and impacting in the Indian economy. E-Commerce grew up the expectancy as not only from providing quality service but from the different deals and offers related are enough to attract and attach the consumers. Consumer behavior is changing day by day and ecommerce is ready enough to fulfilled the necessities. The study was conducted by collection of secondary data from various sources and with the help of a questionnaire circulated among 56 respondents across India. The study encompasses the views and preferences of consumers which covered respondents belonging to various kinds of India with all background and age grouped into various professions and income groups. The findings revealed that E-Commerce in the last 60 months has grown by a significant margin and technology has assisted in its growth. Consumer behavior changed as consumers started purchasing from ecommerce websites rather than visiting traditional retail stores primarily due to convenience caused by home delivery service. Quality is another factor which is to be considered. The Ecommerce is also expected to further grow in the future generating employment and contributing to Indi s GDP.

E-COMMERCE
E-COMMERCE is that the shopping for and mercantilism of products and facilities based services, or the transmission of accumulation or information, over associate degree network, initially the web. These business transactions area unit b2b, 2c2, c2c or c2. Email, fax, on-line catalogs and searching carts, Electronic information Interchange (EDI), FTP, and internet services are the e-tailing services. It will be thought of as a lot of advanced variety of mail-order buying through a catalog. Ecommerce is the agitation of businesses to the globe Wide internet. The results of e-commerce square measure already appearing all told areas of business, from client service to new product style. It shows new forms of information primarily defined business processes model to compass and interfacing with consumers like on-line advertising and promoting, on-line order taking and on-line client service. There has been an increase within the variety of corporations taking on ecommerce within the recent past. Major Indian portal sites have conjointly shifted towards ecommerce rather than reckoning on advertising revenue. Many sites unit of measurement presently selling a numerous vary of product and services from flowers, acknowledgment cards, and Movie tickets, PCs, Laptops Groceries etc.

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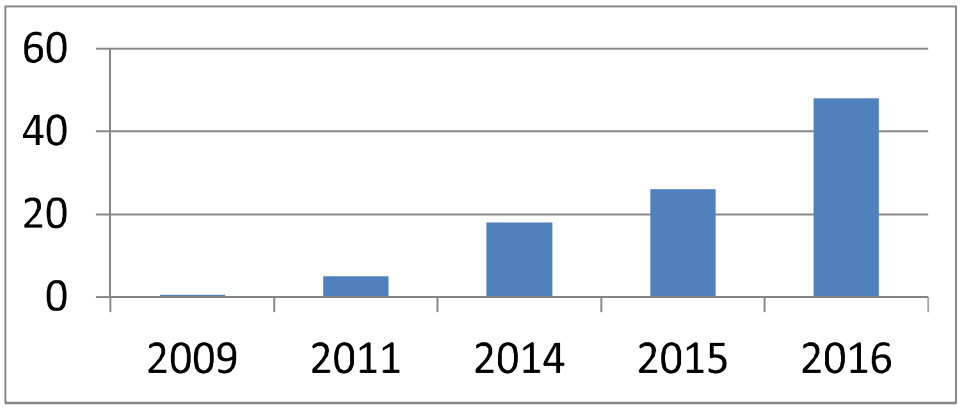

Table-1: Online Retail Sale in India from 2009 to 2016 (In Billion US Dollars)
Source:- ASSOCHAM various sources (The Hindu), Statista 2017

KEY DRIVERS IN INDIAN E-COMMERCE ARE

- Huge share of populace signed to broadband Internet, growing 3G web operators, and a new outline of 4G crossways the country.
- Fiery growing of Smartphone operators, before long to be world's second largest Smartphone user base.
- Increasing morals of living as results of quick failure in poverty rate. Convenience of plentiful broader product vary (including long tail and Direct Imports) likened to what's out there at element and grout retailers.
- Modest costs likened to brick and grout retail driven by disintermediation and abridged list and assets prices.
- Augmented usage of on-line confidential sites, with supplementary shopper shopping for and retailing second-hand goods
- Development of Million-Dollar start-up similar Jabong.com, Saavn, Makemytrip, Bookmyshow,

Zomato Etc. According to Forrester, the e-commerce market in Bharat is about to grow the quickest among the Asia-Pacific Region at a CAGR of over fifty seven between 2012 –2016. Bharat has an online user base of concerning 354 million as of June of 2015. Despite being the second largest user base in world, solely behind China (650 million, forty eighth of population), the penetration of e-commerce is low compared to marketplaces just like the us (266 M, 84%), or France (54 M, 81%), but is increasing at Associate in Nursing novel rate, addition about half-dozen million new applicants monthly. The industry agreement is that growth is at Associate in nursing inflection purpose. In India, cash on distribution is that the greatest popular sum technique, accruing seventy fifth of the e-retail activities. Demand for international shopper product (including long-tail items) is growing abundant quicker than in country supply from licensed distributors and e-commerce offerings. Largest e-commerce companies in Bharat square measure Flipkart, Snapdeal, Amazon Bharat and Paytm.

GROWTH AND PROSPECTS OF E-COMMERCE IN INDIA:

Increasing net and mobile penetration, growing satisfactoriness of on-line payments and favourable demographics has provided the e-commerce sector in Bharat the distinctive chance to corporations connect with their customers, it said. There would be over a 5 to seven fold increase in revenue generated through e-commerce as compared to last year with all branded attire, accessories, jewellery, gifts, footwear ar obtainable at a less expensive rates and delivered at the threshold, it's noted that the shopping for trends throughout 2016 can witness a major upward movement because of aggressive on-line discounts, rising fuel worth and wider and ample choice can hit the e-commerce business in 2016. It ascertained mobile commerce is growing speedily as a stable and secure supplement to the e-commerce business. Searching on-line through sensible phones is proving to be a game changer, and business leaders believe that m-commerce could contribute up to seventy per cent of their total revenues. In Bharat roughly 60-65 per cent of the entire ecommerce sales ar being generated by mobile devices and tablets, exaggerated by fifty per cent than in year 2015 and additionally probably to continue upwards. It noted that the browsing trends, that have generally shifted from the desktop to mobile devices in Bharat, on-line searching is additionally expected to imitate, as one out of 3 customers presently makes dealings through mobiles for tier-1 and also tier-2 metropolises. In 2015, seventy eight per cent of searching queries were created through mobile devices, compared to forty six per cent in 2013. In 2015, the best rate was seen within the attire section virtually sixty nine.5 per cent over last year, followed by electronic things

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by sixty two %, baby care product at fifty three per cent, beauty and private care products at 52 per cent and homebased cabinets at 49 per cent. It revealed that Mumbai ranks first in online shopping followed by Delhi, Ahmedabad, Bangalore and Kolkata. On the mode of payment, almost 45 per cent of online shoppers reportedly preferred cash on delivery mode of payment over credit cards and debit cards. Lone 10 per cent opted for internet banking and a scanty 7 percent favoured cash cards, mobile wallets, and other such modes of payment, it said. The survey exposed that 38 per cent of steady shoppers are in 18-25 age group, 52 per cent in 26-35, 8 per cent in 36-45 and 2 per cent in the age group of 45-60.

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CONCLUSION

India has less MasterCard population, lack of quick communicating services in rural India. Accessing the web is presently hindered down by slow transmission speeds, frequent disconnects, value of Wireless connection and wireless communication standards over that information is transmitted. High-speed bandwidth Internet affiliation not obtainable to most voters of the state at a reasonable rate. In India, largely individuals aren't aware of the English language or not therefore smart in English. So that for the dealings over web through electronic devices, language becomes one amongst the major factors to purchases, rent and sell a specific product or services. Manifold glitches with trust in ecommerce technology and absence of extensive accepted standards, absence of payment gateways, confidentiality of personal and business info linked over the web not guaranteed safety and privacy of data not in situ to deploy ubiquitous IT Infrastructure and its maintenance Conclusion Growth of ecommerce depend to an excellent extent on effective IT security systems that necessary technological and legal provisions have to be compelled to be place in situ and strong perpetually. While many companies, organizations, and communities in India are starting to cash in of the potential of e-commerce, vital challenges stay to be overcome before e-commerce would become Associate in Nursing asset for people. With the explosion of web property through mobile devices like Smartphone and tablets, a lot of shoppers ar creating choices on-line and during this means enterprises will build the whole digitally and enhance productivity however government policies should ensure the value effective methods/solutions. Ecommerce in India is destined to grow each in revenue and geographic reach. The challenge of creating shopper trust in e-commerce poses issues and problems that need further analysis.

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ARTIFICIAL INTELLIGENCE AND ITS APPLICATION IN DIFFERENT AREAS

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ABSTRACT
In the future, automotive machines will replace or increase human potential in many areas. AI works as a to computational tools that perform for human intelligence like that gives response, understand human requests, collect information, and communicate with the objects for response. Now day's artificial Intelligence is a known as developing as well as popular area in ICT as it has work to reduce work of the human life in many areas. Artificial intelligence has improved performance in last two decades greatly in manufacturing and services. Implementing Artificial Intelligence impacting on various fields of human life. Artificial intelligence used to solve the problems of different areas it may be science & technology, finance, medical, environmental. The system who provides this technology has increase in the quality and efficiency. This works on the current use of Artificial Intelligence technologies. This paper also gives an overview of Artificial intelligence technology and its application areas.

Keywords: Artificial Intelligence, Robotics, data science, business, Security.

I. INTRODUCTION

Artificial intelligence is consuming a vital role in the research of computer science, management and its operational areas. Intelligence is a term known as the proficiency about your subject and command and knowledge to solve complex problems. In the upcoming years Artificial intelligence machines will replace human skill in many areas. AI works on computational tools that are able to perform for human intelligence like that gives response, understand human language, collects data, and connected with the objects. Artificial intelligence is similar term like psychology but it added computation term from computer science because of its emphasis on perception, reasoning and action. It makes machines perspective and more useful. AI technologies offered many of their applications with real practical benefits. Artificial Intelligence mainly in two terms Face and Voice Recognition both terms in commonly used interchangeably in areas like robotics.

Artificial intelligence can perform certain tasks faster and better than the human being. AI perform test for develop to test that whether a particular machine can able to think or not. This test involves a human interrogator which test with a human and machine to check or test who is human and which one is machine.

II. AREAS OF ARTIFICIAL INTELLIGENCE

A. Speech Recognition: The ability to "understand" and respond to the natural language. It convert spoken language to a written form.

B. Learning and adaptive systems: The technology to adapt behaviour based on earlier experience, and to improve general rules regarding the world based on such experience.

C. Problem solving: Capacity to construct a problem in a suitable representation to plan for its solution and to find when new information is needed and how to obtain it.

D. Perception (visual): The capacity to finding a sensed scene by connect it to an internal model which show the recognize being "knowledge of the world." The result of this analysis is a structured set of relationships between entities in the scene.

E. Modelling: The ability to improve a presentation and transformation protocols which can be implement to find the behaviour and relationship in some set of entities.

F. Robots: Robots is a term used to handle the objects by perceiving, picking, moving, modifying the physically or to have an effect on freeing manpower from doing repetitive work without getting bored, distracted, or exhausted.

G. Biometrics:

Biometrics is based on human recognition may be physically or behavioural intersection.

Biometrics tools used to discover administration and controlling.

It is also used to finding out individuals in groups that are under surveillance. Currently used in market research.

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III. APPLICATIONS OF ARTIFICIAL INTELLIGENCE

1- Automated customer support

Now a days it is difficult to find an online store which doesn't offer high-tech customer support, earlier days it was done through email or phone.

Traditional support channels cost businesses a whooping amount of money and wastage of human resources that can be directed toward more intelligent and creative tasks otherwise.

Artificial Intelligence gives response for simple questions like giving the status of your order and finding a particular product based on your description as per your others.

Online shopping experience has been greatly enhanced by Chatbots because of the following reasons:

- They offer quick replays as compared to human assistants, it reduces time.
- Chatbots also helps in trading opportunities.

2- Travel and navigation

Fig: No.01

In transportation industries, AI is becomes one of the important key for this industries. To gives accurate route to work or to make travel arrangements — artificial intelligence is always helps people in their day to day life.

A many people review travel tips and also reserve trips on these devices, with the help of AI- travel assistants. Chatbots is also used for the travel industry to giving services like interaction with customers for travel notifications, details about booking, and give fast response to user.

In transportation term, you can consider Google Maps AI- validate mapping, it identify road information and used it for algorithms to identify the fastest route for bike, car and by walk also. Now a days Al is everywhere it may be a business, education, technical or nontechnical areas.

3- Smart home devices

Fig: No.02

Increasing uses of AI has solidified the term "smart home". A smart home devices which you uses AI technology to adopt your behaviour so that they can modify their settings quickly to experience as smoothly as possible. Smart voice assistants are working over on these smart devices. It takes sometime to see a well-defined AI technology based home. AI capable of response to our choices in real life, it takes forward steps to bring this technology closer to the real world. There are also technology for smart lights that can change power and lights colour based on time.

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4- Security and surveillance

Fig: No. 03

While arguing on the ethical aspect of implementing a broad surveillance system, you cannot avoid the fact that it's being implemented. Probably it is not possible to everyone to consistently monitor all channels with data coming from a large number of cameras at the same time, but AI technology is makes that possible.

AI technologies that mostly work on of voice recognition and facial recognition based technology that improves personalize experience.

Image processing technology implement the data science by raising the artificial intelligence.

5- Artificial Intelligence in Healthcare

Fig: No.04

Healthcare centers are using machine learning technology to make better and faster in recovery in diseases than humans. AI is a study realized to emulate human being intelligence into ICT that could assist both, the doctor and the patients in the following ways:

By providing a laboratory for the various experiments, representation and analysing medical information

By come up with novel tool to gives support for decision making and research

By adding activities in medical, software and cognitive sciences

In healthcare, artificial intelligence has already work as a game-changer, it developing every industry effectively. It may be the secure patients personal records from cybercriminals to work as helping hand in surgeries — AI is recognize everywhere.

AI-facilitate doctors to reduce their schedules, free up time and cost by streamlining processes and opening up new avenues for the industry.

6- Artificial Intelligence in business

Robotic technology is use to perform highly critical tasks which normally completed by humans. Customer relationship management platforms to uncover information on how to better serve customers. Chatbots have already been involve into websites and e-companies to provide quick and smooth service to customers.

Coordination of finance industries and AI technology is an ultimate match.

The financial sector increasingly working on real-time true reporting and processing of large quantity of significant data to make important results.

In all these parts in which artificial intelligence allowed systems excel. AI gives accurate and efficient data, chatbots, computerisation, etc are part of these processes.

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7. AI in education

Fig: No.05

In automatic grading, giving tutors more period, it benefits to calculate students, adapt to their desires and also support them to work as per their concern areas.

8. AI in Autonomous vehicles: Autonomous automobiles are similar like persons, self-driving cars wants to have sensors to catch to comprehend the world all over the place and a brain to accumulate, route are based on information gathered. Autonomous vehicles are with some advanced tool to gather information like long range radar, cameras, and LIDAR. This information is not useful, unless it is processed into some form of information which can use on gathered information. This is where artificial intelligence used to follow human brain.

9. AI for robotics

Robotics can mainly use in taking care of an over age people and also allow long independence. It will be even decrease rate of traffic accidents and deaths, also enable disaster response in emergency situations.

IV. CONCLUSION

The artificial intelligence gives the ability to the machines to think practically, using concepts. From last two decades AI made huge innovation in different areas. AI plays vital role in different areas for their innovations.

This shows the basic concept of Artificial Intelligence. AI also increasingly made marketing tools to develop customer involvement easily, it helps to make reports, and it helps to generate more impactful business among others with least social involvement.

Artificial intelligence is impacting on human life and also on society with a various applications.

The more progress there is in the central field of AI technology, the more important and urgent becomes the rational, forward looking approach to the associated challenges. The researchers and developers of new technologies also carry responsibility for how their contributions will impact the world. Unfortunately, there are strong economic incentives to undertake for develop latest or new technology as fast as possible, without "losing" time for expensive risk analyses. These unfavourable conditions heighten the risk that control of AI technology and its use will slip further and further from our grasp.

The more progress there is in the central field of AI technology, the more important and urgent becomes the rational, forward looking approaches should be count on as many field as possible: in politics; in the research itself; and in general by all individuals whose work is pertinent with the issue. A fundamental prerequisite to directing AI development along the most advantageous tracks possible will be broadening the area of AI safety, so that it is recognized not only amongst a few experts but in widespread public discourse as a great (perhaps the greatest) challenge of our age.

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BLOCK-CHAIN: PRINCIPLES APPLICATIONS AND FUTURE TRENDS

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ABSTRACT
This describes the principles of blockchain technology and its applications. First the core concept of blockchain is discussed. Secondly the working concept of blockchain is discussed and main features of blockchains are discussed. Thirdly the main principles of blockchain and building trust with block-chains are discussed. Finally, the lists of important applications are presented. Blockchain applications are very trending and useful because the applications are distributed or decentralized, scalable and consensus base. Blockchain applications are Efficient and reliable in various fields like internet of thing, financial service etc.

Index Terms: Architecture, Blockchain, Consensus, Decentralization, Principles, Scalability, Security.

NOMENCLATURE
Blockchain works on the basis of some principle which makes blockchain very secure, efficient, and reliable. After that Some of the applications and future trends as well as how to build trust with blockchain are discussed.

We have described the concepts of blockchain technology and its principles as well as some of the significant features of the decentralized platforms. After that introduction is discussed and history and working of blockchains are discussed as well as we have discussed about architecture and cryptocurrency and how blockchain is distributed & secured.

1.0 INTRODUCTION
Blockchain basically means chain of block which is also called nodes. Blockchain is distributed database which contains record in a form of block. It is Discovered in 1991 by 'Satoshi Nakamoto'. It is very secured protocol and it has authority to timestamp the digital documents so that information will be secured and it can't be changed. It is a distributed ledger which anyone can host and the records are so much secure in digital ledger.

Bitcoin transaction is the famous use of Blockchain. Bitcoin is the cryptocurrency and it is used for online transaction as a digital currency.

Bitcoin transaction is secure because it doesn't involve any bank or third party, transaction execution process is done only between two people i.e. sender and receiver and each transaction is encrypted and secured with digital signature. This is why it is called as distributed trustless consensus.

It allows transaction to be done without involving any bank or third-party application. It can be used in various fields like smart-cities, public services, Internet of Things and security services.

2.0 HOW BLOCKCHAIN WORKS?
Blockchain holds some serious properties which enables decentralization over the internet, it means that nobody has full authority over the network rather it is distributed to user who use it they can be Blockchain Miners and the users.

Blockchain has the high availability because it is based on n number of nodes in peer to peer network, we can also consider block-chain is similar like linked list because each of the item is dependes on the previous node, except first node which is known as a genesis block which is hard-coded in blockchain by miners.

So, suppose we have 50 blocks of chain, so the 50th block depends on the previous all the blocks including genesis block. If someone gives a try to change the data, he has to change all the previous blocks of chain. So, it is nearly impossible to change the all values of previous blocks and alter only one block. This will result to creation of invalid blocs which cannot be linked together.

2.1 Principles on which Blockchain works
Blockchain works on the basis of some principle which makes blockchain very secure, efficient, and reliable.

2.2 Peer-to-peer-transmission
In blockchain the communication is done directly between peers and each nodes stores and shares information all alternatives nodes.

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2.3 Computation logic
For providing a high computation power and transaction are tied with some algorithms which is used by users mechanically initiate the transaction between nodes and block. This logic provides and manages all the blocks or nodes by taking appropriate measure at early stage and discarding the invalid blocks.

2.4 Distributed database
Each user in blockchain contains all the information and its complete ledger, no single user has controls over the data or information in ledger.

2.5 Static records
Transaction which is done on network is stored in the digital ledger and it can't be changed or altered as they have synced data of previous transaction which was recorded in past. All algorithms and logic ensure that all the records are secured and they are stored permanently.

2.6 Consensus protocol
Blockchain miners have authority to allow certain nodes to perform the verification process. The responsibility of granting access to those nodes or expanded set of trusted parties is a crucial security decision made by the blockchain system operator.

3.0 BUILDING TRUST WITH BLOCKCHAIN
Blockchain increases the trust across the business network. As it is distributed system it can be accessible from anywhere in the world it contains record of transactions which is very much secure and impossible to alter.

Here some of the attributes are listed for building trust and benefits.
- Transparent
- Consensus-based
- Flexible
- Time-saving
- Cost-saving
- Distributed
- Transparent

Blockchain is having two types Public Blockchain and Private blockchain depending on the different-different criteria they have different properties. Between public blockchain and private blockchain, private Blockchain has the highest efficiency.

Properties	**Public Block-chain**	**Private Block-chain**
Consensus-determination	All miners	Only One organization
Reading Permission	Public	May be public or restricted.
Immutability	Nearly-impossible	May be tempered
Efficiency	Low	High
Centralization	No	Yes
Consensus Procedure	Permission is given but less	Has permission

Table-1: Comparison among Public & Private Blockchain [1]

Table 1 describes the six main properties of private and public blockchain and comparison among them. Private blockchain is more secure than public block chain because the consensus is determined by one organization and only Authorized people have to authority to read the data.

4.0 APPLICATIONS OF BLOCKCHAIN
4.1 Banking
Avoid risk of payment loss during the money transaction by adopting secure distributed ledger.

4.2 Retails & consumers product
Enhance your product quality and business reliability. It makes easy for your supply chain partners to track the deliveries.

4.3 Real Estate
It helps to analyze the authenticity of ownership transfers, rental agreements and smart contracting through registry management system.

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4.4 Insurance
It handles the claim settlements and frauds. It allows the creation of transparent secure network.

4.5 Health Care
Establishes a secure chain of networks to handle the patient records, Billing and monitors public health.

4.6 Travel
It reduces time delay of the process of passenger's document verification and validation.

It creates a decentralized and independent hotel booking Platform and environment at the least transaction Charge and also keeps the confidential information safe.

4.7 Food and Supply chain:
It creates proof record to verify and check the real information about the date expiration of product and the also keep the record of quality of food.

It increases the reliability and efficiency of food chain system.

5.0 POSSIBLE FUTURE DIRECTION
Blockchain has shown its potential in industry and academics. [1] It has also shown its potential for transforming the industry. We discussed possible future trends with respect to three areas: blockchain-testing, big-data analytics and block-chain applications [1].

5.1 Blockchain Testing
Before building blockchain we should test the different block chains. However, it attracts the investors and users. Before testing Blockchain miners should be clear about the functional and non-functional requirements.

Blockchain testing should be separated in two phase standardization phase and testing phase [1]. In standardization phase all the criteria should be set by blockchain miners so that Blockchain can be tested in valid range. Once the all the criteria have made and Agreed then blockchain testers should proceed with testing, it includes testing of blockchain in different criteria

5.2 Big data analytics
Blockchain can work greatly with big data. Here we roughly categorized the combination into two types: data management and data analytics [1]. it can be also used for managing the data as it is distributed and secure.

It can also be used in analytics as it stores the data which is nearly impossible to temper. It keeps the data original and secure by which can analyze the data or big data analytics.

By analyzing different-different patterns on data using blockchain techniques we can do many pattern analysis and predications based on different patterns.

5.3 Blockchain applications:
Nowadays, blockchain applications are mostly used in financial field because it works as a virtual ledger and it doesn't involve any third-party member for their transaction and it makes blockchain and transaction very much secure.

Many of the industries can use blockchain technology for enhancing their industrial process like providing more security to their data and make very confidential so that the originality of the data can be maintained and it will not be tempered.

It can used for building the Smart city. In this we can do multiple startups for connecting more people with your organization and providing shared services to them.

In blockchain, smart contract is a code fragment that could be executed by miners automatically. Smart contract has transformative potential in various fields like financial services and IOT [1]

6.0 CONCLUSION AND FUTURE SCOPE
We have described the fundamentals of blockchain technology as well as some of the significant features of the decentralized platforms. After that introduction is discussed and history and working of blockchains are discussed as well as we have discussed about architecture and cryptocurrency and how blockchain is secured & distributed and very much efficient is discussed.

Blockchain works on the basis of some principle which makes blockchain very secure, efficient, and reliable. After that Some of the applications and future trends as well as how to build trust with blockchain are discussed

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BUSINESS INTELLIGENCE FOR PMS APPLICATION

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ABSTRACT
Currently the doctors provide boluses manually using a syringe to infuse the drug intravenously or by using a catheter inserted into epidural space. This manual drug delivery whether in intermittent (at regular time intervals) manner or in the continuous manner is prone to human errors. The manual drug delivery method blocks manpower and reduces regularity and accuracy of drug delivery. Pain Management System has applications in many fields of medicine like oncology, orthopedics, 'Painless Labor' in obstetrics and many more where pain needs to be reduced. The typical pain management team includes medical practitioners, clinical psychologists, physiotherapists, occupational therapists, and nurse practitioners. The enhanced accuracy of drug delivery by designing an automated syringe pump for pain management and its wide usage in various departments of medicine, makes this project relevant and helpful to the medical practitioners. Syringe drivers are defined as power driven devices that drive the plunger of a syringe at an accurately controlled rate to deliver medications. Their use as a method of drug delivery to control symptoms in palliative care is a common and accepted practice. They provide symptom control via infusion of drugs to treat pain.

Keywords: boluses, accuracy, automated, reduced manual labor, infusion pump..

I. INTRODUCTION
Pain Management (also called algiatry) is a branch of medicine employing an interdisciplinary approach for easing the suffering and improving the quality of life of those living with pain.

The Pain Management System comprises of reducing pain by infusing analgesics in an automated manner, intravenously or epidurals and assessing the pain of the patient. The medical practitioner's assessment of pain will decide the further increase or decrease of analgesic infusion accordingly.

An automated device to infuse analgesics could allow the doctors to manage patient's pain by infusing the drug in a continuous manner (constant rate) or in an intermittent manner (at regular time intervals).

The Pain Management System comprises of an Infusion Pump which can infuse analgesics epidural and intravenously to reduce pain. The infusion could be continuous or intermittent. The analysis of pain assessment will decide the further increase or decrease of analgesic infusion accordingly.

The Pain Management System has applications in many fields of medicine like oncology or orthopedics; it can also be used for 'Painless Labor' in obstetrics. The term epidural is often used for epidural anesthesia, a form of regional anesthesia involving injection of drugs through a catheter placed into the epidural space. The injection can cause both a loss of sensation (anesthesia) and a loss of pain (analgesia), by blocking the transmission of signals through nerves in or near the spinal cord. The epidural space is the space inside the bony spinal canal but outside the membrane called the dura mater.

II. LITERATURE SURVEY
A literature review was undertaken to identify the most current evidence regarding syringe driver management. The following databases were searched for the purposes of these guidelines: CINAHL, Medline, PsycArticles and PsycInfo. The review of the literature was limited to adult patients and the English language, and covered a ten year period from 1995-2005. Search terms included: syringe drivers; subcutaneous infusions, end-of-life care, Graseby and palliative care. An internet search using the Google search engine was also undertaken using the same search terms. This identified relevant websites relating to syringe driver and pain management.In addition, clinical notes, websites and books about syringe driver devices identified as relevant to the project were examined.

The first paper we referred was "Advancement in "Insulcagon Pump" Simulating as an Artificial Pancreas for the Treatment of Diabetes"[Engr.S.Ghufran Khalid - BMED, NED University of Engineering & Technology, Karachi, Pakistan, Prof.Dr.Iqbal Bhatti - BMED, Ziauddin University, Karachi, Pakistan, Engr.Kamran Hameed - BMED, Sir Syed University of Engineering & Technology, Karachi, Pakistan][Reference No.1]. The basic concept of fabricating the insulcagon pump is to design a prototype that automatically regulates glucose levels in the blood of diabetic patients just like in the feedback system in the human body because glucose is the main

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physiological controller of insulin as well as glucagon secretions in human body . It includes some peculiar functions in this medical instrument. These functions include: trend, modes and power compatibility. Trend provides the past activities according to the time selected. Modes have options for the user to select either calibration, either auto-mode or manually selecting required amount of bolus directly injected into the body. Power compatibility option prevents disruption in the continuity of the device.

The second paper referred was "International Journal of Advanced Research in Computer Science and Software Engineering - Micro Flow rate Infusion Pump Prototype" [Prof. Smita R.Dikondwar Department of Instrumentation and Control, College of Engineering Pune, ShivajiNagar, Pune- 411005, India][Reference No.2]. Since manual method of micro or nano flow-rate of liquid handling is inaccurate and tedious job, the automated micro flow-rate liquid delivery system is best suitable. This paper presents the development of practical approaches to liquid-delivery system for micro flow-rate with accuracy and precision. The experimental and results demonstrate that the liquid-delivery system is capable of generating accurate and condition-independent micro- and nano-flowrate. Liquid delivery can be used in medical Infusions such as in anesthesia, diabetes mellitus [1][2] (Juveniles,Type1 and Type2)and in several applications where extremely small volume of liquid in predefined time duration, at a constant flow rate is required , therefore the system find its use in research and development related to biomedical ,biotechnology, bioengineering, chemical laboratories and analytical instruments.

The third paper referred was "The Infusion Pump: Clinical Observation H. Hooshmand, M.D. and Eric M. Phillips][Reference No.3]. The use of an implantable infusion pump for the treatment of chronic pain is to provide the patient with approximately 1/10 the dose that the patient is taking at the present time, and this small dose will be given in a steady fashion in the form of drip irrigation. The drip irrigation is through a small plastic catheter and a titanium pump under the skin which drips the pain medication in minute amounts continuously. The infusion pump is usually installed in advanced cancer patients as a palliative treatment. In a small minority of noncancerous patients the use of the infusion pump is indicated for treatment. The use of an infusion pump is the best form of treatment for advanced, severe cases of complex regional pain syndrome (CRPS) as long as the patient and the physician understand that the dosage of Morphine cannot be mixed with other forms of strong pain medications.

III. KEY FEATURES

Analgesic Infusion Unit	
1	PMS design - Micro Controller based design of drug delivery system for Pain Management - Intravenously & Epidurally
2	PMS Modes - Option of Continuous & Intermittent Bolus method for analgesic drug delivery
3	Continues Infusion PMS - pump delivers at the decided rate (ml/hr) till the given Volume Limit or Time Limit is achieved
4	Intermittent Bolus PMS - Entered Bolus Volume is infused, Time Gap Between 2 Bolus, Infusion Rate should be programmable
5	Infusion Rate Range - 0.1 to 500 ml/hr in steps of 0.1 ml
6	Volume Limit - max. 9999ml in steps of 1 ml
7	Time Limit - in Hours & Minutes (max. 99 hrs & 59 mins)
8	Auto Infusion Rate Calc - Calculation of Infusion Rate if both Volume Limit & Time Limit are given
9	Drug Delivery - Accurate drug delivery by precise control of the syringe plunger (piston) by a lead screw mechanism using a Stepper Motor
10	Syringe Types - Compatible with all Syringes:
	10ml, 20ml, 30ml & 50ml of different brands
	automatic configuration by user of a New Syringe
11	Drug Library -
	Selectable Drug names Library
	Should allow entry of new drug names
12	EEPROM Storage - for non volatile storage of data
	Last Usage Settings
	Drug names
	Syringe Types & Brands
	Drug Lockout values
13	Syringe Detection -

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	Syringe in position
	Syringe Removal
	Wrong Syringe
14	Configuration Module -
	Programmable Bolus Volume and Infusion Rate
	Programmable KVO Rate
	Key Pad Lock Enable / Disable
	Key Pad Lock Password
	Occlusion Level Selection: Low / Med / High
	Patient Controlled Analgesia (PCA) - Enable / Disable
	Bolus Parameters configuration
	Keep Vein Open (KVO) Configuration
15	LCD Display -
	Syringe Type , Syringe Brand
	Drug Name
	Infusion Rate
	Volume Limit
	Time Limit
	Intermittent bolus mode
	Bolus Count
	Bolus Volume Infused
	Analgesic Name
16	Keypad - Matrix Key Pad with numeric keys & keys for -
	Pause: Infusion Pause/ Standby mode
	Config: System Configuration
	State: System Info/ Status
	Bolus: To purge fluid
17	Key Pad Lock (Data security) - to prevent unauthorized changes
18	Online Infusion Rate Change - allowing the doctor to change the Infusion Rate while the infusion is in process
19	Occlusion Detection Levels - To detect Line Blockage or needle out condition
20	Occlusion Detection - Encoder using Infra-Red Optical Sensor to keep track of smooth motor movement and any obstruction to it.
21	Anti Bolus - to prevent purging of analgesic in case of occlusion
22	Air-in-Line Detection - Optical Bubble Detection
23	Drug Lockout - Calculations to prevent over dosage of analgesic drug
24	Alarm Types - Audio Visual Alarm Indications
25	Battery Back Up - Rechargeable Battery with automatic recharging
Patient Feed Back Unit - Micro Controller based design	
1	Patient Controlled Analgesia (PCA)- Key to demand an extra analgesic dose by the patient in excess pain, provided the drug lockout calculations permit & if the doctor has allowed it through the configuration module
2	Wireless Communication - Feedback unit to communicate with the main unit wirelessly

- Bridging multi-jurisdictional boundaries;
- Retaining and preserving evidence;
- Acquiring appropriate powers;
- Decoding encryption;
- Proving Identity;
- Knowing where to look for evidence;
- Tackling the tools of crime and developing tools to counter crime;
- Rethinking the costs and priorities of investigations;

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- Responding to crime in real time;
- Coordinating investigative activities;
- Improving training at all levels of the organization;
- Developing strategic partnerships and alliances;
- Improving the reporting of electronic crime;
- Enhancing the exchange of information and intelligence;
- Acquiring. Developing and retaining specialist staff; and
- Avoiding „tech-lag‟ (or getting access to cutting edge technology).
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IV. WORKING

It is proposed to design and implement a Microcontroller based Syringe Pump with Pain Management features, allowing the doctors to reduces the pain of the patients by giving analgesics epidurals or intravenously in an automated manner and which activates alarms in case it identifies any deviation in infusion rate or decided dosage, along with the type of alarm on the display.

The features of infusing device - Syringe Pump

a. Infusion: Infuses at the decided rates in ml/hr. Change pumping rate whenever required.

b. Limits: Dispense a specified volume (Volume Limit) or infuse at given rate for a specified time (Time Limit)

c. Bolus mode will infuse a specified volume in ml, at a high

d. Alarms: Audible buzzer can be programmed to alert when an alarm condition occurs or the pumping program completes.

e. Battery back-up in case of Power failure.

f. EEPROM: Non-volatile memory restores all setup parameters and the pumping program, on power up.

g. Occlusion pressure detection using an encoder.

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Type of Infusion modes to be implemented for Pain Management

A. Continuous Infusion

This mode will allow the doctors to infuse the drug at constant rate with an additional option of deciding the Volume Limit and/ or Time Limit after which the infusion should stop automatically. It will also have the Keep Vein Open (KVO) feature.

B. Programmed Intermittent Boluses

The basic requirement is to infuse analgesic drug of a selectable dosage in ml, after a fixed time gap at a programmed infusion rate in ml/ hr entered by the doctor. The number of such doses and the drug-lockout value for that particular drug should also be taken in the design logic.

C. Patient controlled analgesia (PCA)

In PCA, a doctor should be able to allow it using the configure module. In this mode a patient will be able to add an extra shot of drug if drug lock-out logic permits. Although the design provides continuous and intermittent type of infusion, the intermittent bolus method is more effective than continuous infusion method in many a cases.

Patient's Feed Back

The pain scale hand held unit, consisting of 7 faces (smiley's & frowns) is to be used to take feedback from the patients. This patient feed-back will be taken into account by the design logic at regular intervals or before each dosage in case of intermittent bolus mode of pain management.

Requirements

Main module will comprise of a Microcontroller AT 89S8253 as per the company's requirement. Keypad will be interfaced in order for input from the patient/doctor to set the rate of flow or time duration or amount of dose. Stepper Motor mechanism is introduced in order to control movement of syringe plunger. Optocoupler is used for detection of occlusion.

Pain Scale Hand Held Unit (Feedback Mechanism)

Various keys will be introduced like KVO, BOLUS, SELECT, etc. These all will be interfaced with an ARM7 Microprocessor (LPC2148) with indication on Graphical LCD. Zigbee module will be used as serial interface medium between handheld unit and syringe pump mechanism.

V. CONCLUSION

The use of syringe drivers in palliative care to achieve symptom control is standard and accepted practice. There are many benefits that syringe drivers present to the patient in terms of convenience and effective management of symptoms. . However use of this device has not been without its risks and limitations, including the inflexibility of prescription, technical problems, safety issues and skin reactions at the site of the infusion. Syringe drivers may also cause concerns and fears for some patients and their families because they are associated with disease progression. The guidelines presented in this report are intended to promote a standardized approach to clinical care, thereby minimizing practice errors that can result in serious adverse events that present an on-going risk for patient safety. Syringe infusion pumps are used in the medical field to administer medication to patients. Syringe infusion pumps provide the ability to automatically administer medication over an extended period of time. Thus, patients receive a desired rate of medication administration. Further, medical personnel are free to attend to other duties instead of repeatedly and manually administering medication.

VI. FUTURE SCOPE

Generally, infusion pumps are fairly well-known in the medical field. Typical syringe infusion pumps utilize a standard syringe pre-filled with a fluid medication. The pre-filled syringe is loaded onto the syringe infusion pump for automatic dispensing of the fluid. Automatic dispensing of the fluid occurs by controlling the insertion of the syringe plunger into the syringe barrel. To control the insertion of the syringe plunger it is desirable to determine the location of the syringe plunger in relation to the syringe barrel. Additionally, it is desirable to detect capture of the syringe plunger in the syringe plunger driving mechanism when the syringe is loaded onto the syringe infusion pump. Existing infusion pumps have detected the position of the syringe plunger. For example, linear potentiometers, rotary potentiometers, and optical vane techniques have been used in the past. Existing infusion pumps have detected capture of the syringe plunger. However, past devices have provided separate sensing of the plunger position and sensing of the plunger capture. Furthermore, some past devices have utilized an electrical connection to the moving syringe plunger driver. To accomplish an electrical connection to a moving part, those devices have utilized sliding electrical contacts or flying wires, for example.

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Therefore, a need exists to improve existing infusion pumps by simplifying and combining the functions of sensing syringe plunger position and capture. The future invention satisfies this need to improve existing infusion pumps. The future invention will combine both functions of sensing syringe plunger position and capture. Furthermore, the future invention will remove electrical contacts between moving parts of the driving mechanism. Thus, the future invention simplifies infusion pump design, reduces space requirements and potentially reduces manufacturing cost.

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CHATBOT APPLICATION USING ARTIFICIAL INTELLIGENCE

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ABSTRACT
In today's era of technology Chatbots are now replacing some of the tasks that are traditionally performed by a human. With the use of Artificial Intelligence, the performance of chatbots is improving. A chat-bot is an interaction agent where a computer software is used to simulate an intelligent conversation. It is in the format of taking inputs in form of text or digits. Chatbots can "chat" nowadays as like human being. Experience indicates that the conversation between chatbot and computer are mostly short but also indicates that it is accessible anywhere at any time. In this article, we will have a technique for developing an android application chatbot which will co-operate with operator using text.

Keywords: Artificial Intelligence, Chatbot, Computers, Application, Technology

I. INTRODUCTION

Since last few years, Chatbots are playing a protuberant role as human-computer interaction.

Chatbots consist of three major components: the user interface, an interpreter and a database.

Laven [1] defines Chatbot as a platform that efforts to simulate typed discussion, with the goal of at least provisionally tricking the social into thoughtful they were speaking to other person. Actually, chatbot is a conversational agent that cooperates with operators for a given topic using the natural language. Till date several chatbots have been organised on the internet for the determination of education, consumer service site, supervision, entertaining, etc. The famous existing chatbots are ALICE [2], Siri and Ok Google.

The AI based chatbots are famous because they are light weight, easy to configure as well as at low cost. In our paper, we are going to have an application for college purpose which will provide all the information related to college and student queries.

Firstly the bot analyzes user triggered message to the chatbot program, then according it matches reply from the MySQL database, the answer is formulated and send back to the user. Students must select the category listed in a drop down fashion having various options such as admission, faculty details, syllabus, exams etc. Hence, this will avoid student's direct enquiry to college. If any new applicant enquirers for admission and the particulars about any section of the college this bot will assistance to get the answer of enquiry of the applicant. The chatbots that are currently been live in market uses text, voice and emotion intelligence as the input. In this paper, we have used the text as user input. If the present proposes need to be improved, we have to provide some options. For the same, we restart from the basics. There is always need to rethink about the fundamental abilities on which intelligence works.

a) Arithmetic

The power to compute is the fundamental of intelligence. It contains arithmetic processes like addition, subtraction, division and so on. Today's machineries do well on this portion. They can help carry out even complex calculations within no time.

b) Comparison, Logic and Reasoning

The choice of AI becomes wider when a structure has the capability to apply logic and make Assessments. Current generation PCs can accomplish logical operations nicely with the Values of Boolean algebra.

c) Education, Heuristics and Memory

The main objects of AI will be a tool to remember past incidents, learn new things and gain experience. Heuristics implementation in newer software has given the ability for machines to grow, learn and gain experience.

d) Senses

It helps to know the environment around us. We humans are lucky enough to have really efficient and effective set of senses. Some animals like dogs are said to have even greater abilities to sense. A working machine with correctly installed equipment's to sense the surroundings will prove to be a great body for its intelligent brain.

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But for example, even a caterpillar can outstand machines in the ability to know about their nearby environment.

e) Perception
The output of senses is then processed here. This leads to creativity along with intelligence. We can call a machine with a perception as a distant dream of AI.

f) Consciousness
It is a most difficult content to be detailed on. Most difficult task to implement in a machine. Take for an example - How can a physical system come to notice the presence of itself in the world? This question is really very difficult to answer for. Everyone will have their own views.

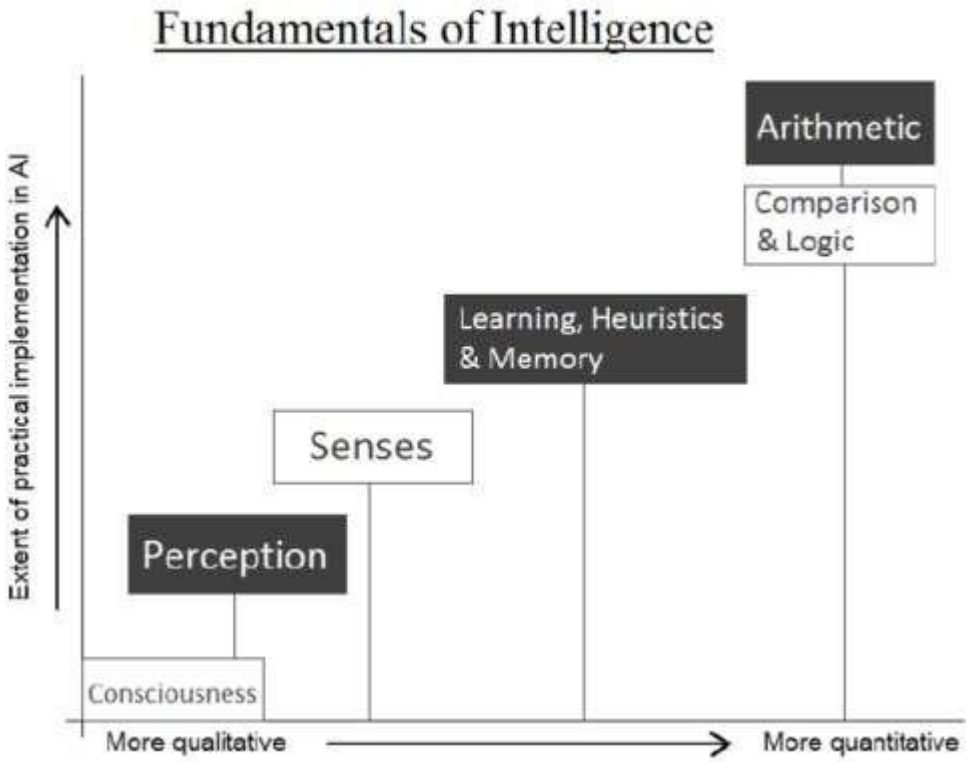

Figure-1: Analysis of Fundamental Traits of Intelligence and Today's AI

ARTIFICIAL INTELLIGENCE/MACHINE INTELLIGENCE
This paper intends to offer summary concerning Artificial Intelligence application such as chatbot.

a) Partially Intelligent Systems
Any engine, system or application taking some of the overhead registered basics of intelligence is a Partially Intelligent System. For example, chatbots exhibition some of above listed characteristics, specifically Assessment, Logic & Intellectual and Learning, Heuristics & Memory. If there is an option for additional module, they may display some more qualities also, like ability to perform arithmetic operations. Therefore, chatbots are Partially Intelligent Systems.

b) Completely Intelligent Systems
Any machine, structure or database enlightening all of the mentioned basics of intelligence completely will be considered a Completely Intelligent System. Such a unit will represent the true power of AI.

c) Performance Factor
The Performance Factor of a system is a degree offered for representing the capability of an intelligent system in terms of the vital qualities of intelligence it holds.

IV. LITERATURE SURVEY
Eliza is been considered as the first chatbot which works on the pattern matching system. It was developed by Joseph We izenbaum in 1964 [3]. ALICE [2] is a rule-based chatbot based on the Artificial Intelligence Markup Language (AIML). It has several categories, where each category has combination of pattern and its response.

The need for college inquiry system comes up due to multiple reasons which include the slow nature of college website, an outsider would not know where to search for a particular piece of information, difficult for the

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person outside college's domain to extract information. The smart solution for all the drawbacks leads to the need of the system. This chatbot will deliver the reply by summarizing the enquiry and then output responses, it also delivers selective info what the user needs. A chatbot will distribute all answers connecting to domains such as admission, inspection cell, notice board, attendance, placement cell and other numerous domains.

The major features of the chat bot are

- College admission related queries could be answered through it.
- Viewing consumer profiles and recovers attendance and grade/ pointers.
- College students can get info about inspections to be held.

The objectives of this application are

- To analyse users queries and understand users message.
- To provide an answer to the query of the user very effectively.
- To save the time of the user since s/he does not have to personally go to the college for inquiry.
- This system will help the student to be updated about the college activities.

V. APPLICATIONS

- It allows the students to be updated with college related activities.
- It helps to saves period for the students as well as teaching and non-teaching employees.
- It provides us a readily available information source without taking any physical efforts for any task.
- It provide ease to use and access, saving time and cash also.

VI. CONCLUSIONS

It is really impossible to get all the required data on a single interface without the complications of going through multiple forms and windows. The present college chatbot intends to remove this difficulty by providing a common and user-friendly interface to solve basic queries of college students. The purpose of a chatbot system is to pretend a human conversation. The students can freely ask queries to bot any time. The chatbot provides quick and effective search for answers to the queries. The database holds information about questions, answers, keywords, and logs. We have also developed an interface which will have two parts, one for users and the other for the administrator.

VII. FUTURE ENHANCEMENTS

Other than AIML based chatbot, other algorithms can be implemented. We can also take in voice-based queries. The users need to give voice input and the system will give the output in form of text. Moreover, post successful execution of chatbot in college sector, we can implement it in other fields like medical, forensic, sports, etc. It will be valuable in all the fields as without spending much time, we are accessing the relevant information and that too without any sorting.

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CLOUD COMPUTING: TYPES, ARCHITECTURE AND APPLICATIONS

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ABSTRACT
Technology invention and its acceptance are two critical successful factors for any organization. Cloud computing is a new knowledge that allows administrations or persons to share various facilities in a united and cost-effective way. This article defines cloud computing, a calculating stage for the next age group of the web. The article defines clouds, types of cloud Delivers, Contrast of Cloud Computing with Grid Computing, applications and worries of Cloud Computing , Awareness of Virtualization in Cloud Computing. Readers will also regulate the working, Construction and Role of I.T. Supremacy in Cloud Computing.

Keywords: Cloud Computing, Grid Computing, SaaS, PaaS, IaaS , Cloud Architecture , Cloud Computing Applications.

I. WHAT IS CLOUD?

Cloud computing[1] is a word used to define both stage and type of submission. A cloud computing stage enthusiastically requirements, organizes, reconfigures, and deficiencies servers as required. Servers in the cloud computing can be physical machineries or virtual machineries. Progressive clouds typically include other calculating capitals such as storage area networks (SANs), network tools, firewall and other security policies. Cloud computing[2] also defines claims that are strained to be available through the web. These cloud applications use vast data centers and important servers that host Web applications and Web services. Anybody with a appropriate Internet connection and a typical browser can access a cloud submission.

A. Definition

A cloud is a group of virtualized computer resources.

A cloud can:

- Host a variation of different assignments, including batch-style back-end jobs and interactive, user-facing applications.
- Permit workloads to be organized and scaled-out quickly through the quick provisioning of virtual machines or physical machines.
- Provision of redundant, self-recovering, extremely scalable programming models that allow workloads to recuperate from many unavoidable hardware/software failures
- Monitor source use in real time to enable rebalancing of distributions when needed.

B. Cloud Computing vs. Grid Computing

Cloud computing enclosed by sustenance of grid computing by rapidly providing physical and virtual servers on which the grid applications can run. Cloud computing should not be disordered with grid computing [3]. Grid computing covers unravelling a big task into various smaller tasks that run in parallel on distinct servers. Fro grid computing we required lots of computer, desktops, laptop, servers ,etc… and laptops. Clouds also nourishment no grid airs, such as a three-tier Web structural design running standard or Web 2.0 applications. A cloud is additional than a group of computer possessions because a Cloud brings a device to accomplish those capitals. Administration covers change requests, workload rebalancing, reimaging,DE provisioning, provisioning and monitoring.

II. TYPES OF CLOUD PROVIDERS

A. Software as a Service (SaaS)

SaaS client's payment usage for applications repeatedly within the Cloud's provider set-up, for example Sales Force. The applications are naturally accessible to the clients via the Internet and are managed completely by the Cloud provider. That means that the management of these services such as updating and repairing are in the provider's responsibility. One big advantage of SaaS[4] is that all clients are running the same software version and new functionality can be effortlessly combined by the provider and is therefore obtainable to all clients.

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B. Platform as a Service (PaaS)
PaaS[4] Cloud benefactors contract an application stage as a facility, for example Google App Engine. This allows clients to organize custom software using the tools and programming languages offered by the provider. Clients have control over the organized applications and environment-related settings. As with SaaS, the association of the important substructure dishonesties within the accountability of the provider.

C. Infrastructure as a Service (IaaS)
IaaS[4] fetches hardware properties such as CPU, disk space, network mechanisms as a service. These assets are typically dispersed as a virtualization stage by the Cloud provider and can be retrieved crossways the Internet by the client. The customer has full control of the virtualized stage and is not answerable for handling the fundamental organization.

D. Storage as a service
Storage as a service (STaaS) is a specialized model in which a enormous facility supplies rentals space in their storage structure on a subscription basis. The economy of scale in the service supplier's structure permits them to provide storage much more cost efficiently than most individuals or companies can provide their own storage, when total cost of proprietorship is considered. Storage as a Service is often used to resolve offsite backup challenges. Detractors of storage as a service point to the huge amount of network bandwidth required to behavior their memory using an web-based service.

E. Security as a service
Security as a service (SECaaS) is a profitable model in which enormous facility supplier contributes their security facilities into a profitable substructure on a involvement basis more cost effective than most persons or corporations can bring on their particular when the total cost of proprietorship is dignified. These security facilities often contain confirmation, anti-virus, antimalware/spyware, intrusion discovery, and security event management, amongst others.

F. Data as a service
Data as a service, or DaaS, is a complement of software as a provision. Like all associates of the "as a Service" (aaS) domestic, DaaS is based on the knowledge that the produce, data, in this case, can be provided that on request to the user regardless of physical or structural farewell of provider and customer. Moreover, the entrance of service-oriented architecture (SOA) has minimizes the real stage on which the data exist in also irrelevant. This development has allowed the new arrival of the moderately new idea of DaaS. Data delivered as a provision was at first principally used in web crashes, but now is being increasingly working both commercially and, less commonly, within administrations.

G. Test environment as a service
Test Environment as a service (TEaaS), sometimes mentioned to as "on-demand test environment," is a test atmosphere distribution model that which softwareapplication and its associated data are presented centrally (naturally in the (web) cloud) and are naturally retrieved by consumers by a thin client, usually by a web browser over the Internet.

H. Backend as a service
Backend as a service (BaaS), also accepted as "mobile backend as a service" (MBaaS), is a model for given that web and mobile app designers with a method to link their suggestions to backend cloud memory while also certain that structures such as customer management, thrust announcements, and incorporation with social networking facilities. These services are providing via the use of convention software development kits (SDKs) and application programming interfaces (APIs). BaaS is a moderately current growth in cloud computing, with most BaaS startups dating from 2011 or later. The worldwide BaaS marketplace had projected cost of $216.5 million in 2012.

III. HOW CLOUD COMPUTING WORKS

Hire agreement about you're a policymaking at a large company. Your exact accountabilities contain creation of certain that all of your staffs have the right hardware and software they essential to do their jobs. Buying PCs for everybody isn't enough -- you also have to purchasing software or software licenses to give workforces the tools they need. At whatsoever time you have a new hire, you have to buying more software or make sure your current software license lets additional employer. It's so shocking that you find it difficult to go to sleep on your vast mass of cash every night. Rapidly, there may be an additional for directors like you. In its place of connecting a set of software for each PC, you'd only have to load one application. That request wanted license employees to log into a Web-based provision which clouds all the programs the employer would required for his or her profession. Isolated machines controlled by another corporation would ride entirety from e-mail to

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word processing to multilayered data investigation programs. It's called cloud computing, and it could modification the whole computer business.

In a cloud computing structure, there's a significant assignment shift [5]. Local PCs no extended have to do all the considerable exciting when it derives to successively applications. The system of PCs that make up the cloud grasps them in its place. Hardware and software anxieties on the user's side decrease. The only object the user's PC wants to be able to ride is the cloud computing system's edge software, which can be as simple as a Web browser, and the cloud's system takes repair of the respite. There's a decent chance you've before used approximately form of cloud calculating. If you need an e-mail account by a Web-based e-mail ability like Hotmail, Yahoo! Mail or Gmail, then you've had approximately information with cloud computing. Instead of running an e-mail program on your computer, you log in to a Web e-mail account remotely. The software and memory for your version doesn't be on your PC -- it's on the provision's computer cloud.

IV. CLOUD COMPUTING ARCHITECTURE

When speaking about a cloud computing system[5], it's cooperative to division it into two units: the obverse end and the back end. They attach to each other through a network, typically the Internet. The front end is the lateral the computer handler, or client, sees. The back end is the "cloud" unit of the system. The front end contains the customer's PC (or PC network) and the application vital to access the cloud computing scheme. Not entirely cloud computing systems have the similar user edge. Facilities like Web-based e-mail programs inspiration current Web browsers alike Internet Explorer or Firefox. Other systems have exclusive applications that deliver network access to clients. On the back end of the structure are the various computers, servers and data storage methods that produce the "cloud" of computing facilities. In concept, a cloud computing method could contain nearly any computer program you can visualize, from data indulgence to video games. Typically, apiece application will have its individual enthusiastic server. A dominant server achieves the system, detecting traffic and consumer loads to confirm all runs simply. It monitors a set of guidelines called protocols and uses a particular kind of software called middleware. Middleware authorizations cooperated computers to interconnect with each other. Greatest of the period, servers don't run at occupied competence. That incomes there's vacant treatment power going to leftover. It's likely to sucker a physical server into thoughtful it's really numerous servers, each successively with its own independent operating system. The technique is called server virtualization. By exploiting the output of separate servers, server virtualization decreases the essential for more physical machineries. cloud computing commercial has a lot of consumers, there's probable to be a high request for a share of storing space. Some companies need hundreds of digital memory devices. Cloud computing schemes essential at least double the number of memory devices it wants to keep all its customers' information stored. That's since these devices, like all computers, infrequently break down. A cloud computing scheme must make a copy of all its customers' information and stock it on other policies. The replacements allow the essential server to access backup machineries to recuperate data that else would be inaccessible. Creation copies of data as a backup is called redundancy**.**

V. CLOUD COMPUTING APPLICATIONS

The applications [6,7] of cloud computing are essentially unlimited. By the correct middleware, a cloud computing method could achieve all the agendas a usual computer could ride. Maybe, all from general word processing software to modified computer programs designed for a exact company could work on a cloud computing system. Why would anybody want to trust on another computer system to run programs and store data? Here are just a few reasons:

- Clients would be clever to access their applications and data from wherever at some time. They could admission the cloud computing scheme by any PC connected to the Internet. Data wouldn't be incomplete to a hard drive on one operator's computer or even a company's inner network.
- It could carry hardware prices down. Cloud computing schemes would reduction the essential for progressive hardware on the client side. You wouldn't essential to buy the fastest computer with the huge memory, because the cloud system would take care of those requirements for you. In its place, you could buy an cheap computer terminal. The fatal could contain a screen, input parts similar a keyboard and mouse and just adequate dispensation influence to run the middleware essential to attach to the cloud structure. You wouldn't essential a enormous hard drive since you'd store all your information on a isolated computer.
- Corporations that trust on computers have to make sure they need the right software in place to reach goals. Cloud computing schemes give these administrations company-huge entree to computer applications. The companies don't have to purchase a set of software or software certificates for every staff. In its place, the corporation could wage a metered fee to a cloud computing corporation.

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- Servers and digital memory storing strategies take up space. Some companies rental physical space to stock servers and databases since they don't have it accessible on site. Cloud computing stretches these corporations the prime of storing data on somebody else's hardware, removing the essential for physical space on the front end.
- Corporations might save cash on IT provision. Rationalized hardware would, in model, have odder difficulties than a network of diverse machineries and operating systems.

VI. CONCLUSION

In today's universal competitive market, corporations must innovate and get the most from its resources to succeed. This needs enabling its employees, business partners, and users with the platforms and association tools that indorse innovation. Cloud computing substructures are next group phases that can bring marvelous value to companies of any size. Cloud Computing delivers Software, Platform, Infrastructure, Storage, Security, Data, Test Environment etc. as a service. Customers would be talented to contact their applications and data from wherever at any period. Data wouldn't be limited to a hard drive on single user's PCs or even a company's inner network. It would also carry hardware costs down. You would not need a huge hard drive because you would store all your data on a remote computer. However the biggest worries about cloud computing are safety and secrecy. The idea of control over significant data to another company concerns some people. Commercial executives might vacillate to take benefit of a cloud computing method since they can't keep corporation's info under latch and key.

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CYBER CRIME: A CHANGE IN THE WHOLE THING

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ABSTRACT
Internet in today's era, is considered as a wonderful gift in the form of a tool. This tool keeps everyone engaged in lot many things. There arises a question as this tool helps provide a vast ocean of knowledge and experience, for whom is this tool been invented. Answer for this a bit ambiguous. Hence there is a rise in victims in the spreading pool of criminals who potentially and skillfully pilot the Internet. Internet habitually known as Web is a situation that is immaterial and vibrant. This research paper claims that Cyber Crime or in other words e – crime offers a new method of business and Up-to-the-minute Criminals. This paper discovers an outline of Cyber Crimes, the cybercrime culprits and their inspirations. Also it will also interpret in detail the different types of cybercrimes, and sole tasks and answer issues which may come across during the hindrance, finding, examination and also drawn the diverse section of IT Act 2000 of India also planned new facility in IT Act 2000.

Keywords: Cybercrime, Hackers, Crackers, Child Pornography, Viruses, Worms, Trojans, Cyberstalking, Cyber Law, India, IT Act 2000.

I. INTRODUCTION

The Internet has changed each and everything. It distressed our ideas of how things should be, how countries should be ruled, how companies should be track, how teachers explain and children study and even how housewives style new recipes. It combine up our theoretical framework of what we think we distinguish about the world, about apiece and about ourselves. It is redemptive, thrilling, stimulating and frightening all at the same time. To a mainstream of the people, the Internet leftovers secretive, hostile, unintelligible and scary. Along with the extraordinary development of the Internet has come the growth of cybercrime chances. As a consequence of rapid acceptance of the Internet worldwide, computer crimes comprise not only equitation and rapid, but now also contain blackmail, child pornography, currency valeting, scam, software plagiarizing, and business spying, to name a few. Law implementation officials have been irritated by the incapacity of deputies to keep cybercrime legislature ahead of the speeding technological curve. At the same time, lawmakers face the need to equilibrium the opposing interests between individual rights, such as confidentiality and free speech, and the need to defend the honesty of the world's public and private nets. Further confusing cybercrime implementation is the area of Legal Authority. Like pollution controller rule, one country cannot by himself efficiently pass laws that lengthily address the problem of Internet crime without teamwork from other nations. Law implementation agencies round the world are working together to grow new partnership, new forensic practices and new replies to cybercrime in order to safeguard security on the Internet. Due to its global scopes and borderless nature, novel and ground-breaking responses are vital to the issue of cybercrime or e-crime or computer crime. Though, this paper contends that e-crime, and particularly "hi-tech crime", speaks a new method of business that will require an important example shift in policing.

II. BACKGROUND

What actually defines Cybercrime is the question? Some of the individuals who are experts trust that cybercrime is nothing but a regular crime stanch by a high tech processers where computer is moreover a tool or goal or together and other specialists view that cybercrime is a new class of crime needing a complete new legal outline to speech a sole nature of developing technologies and the single set of experiments that old-style crime do not deal with such as authority, global cooperation, determined and the strain of identifying the committer.

III. TYPES OF CYBER CRIME

A computer is a crucial tool for nearly all cybercrimes. Nevertheless, as more devices are allowed to interconnect with the Internet, the hacker's store of tools is likely to enlarge. A computer can be the goal of the crime, the tool used in the crime, or may contain indication of the crime. The dissimilar uses of computer drive consequences to the criminal acts. When a computer is the goal of the crime, the criminal area is to snip information from, or cause harm to, a computer, processer system, or mainframe network. Pony-trekking, cracking, spying, cyberwarfare and malevolent computer viruses are common forms of corruptions that target the computer. The committers may be adolescent, scholars, expert or the extremists.

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A] Malicious Code – Viruses, Worms and Trojans

Viruses

A virus is a package that alters other computer programs. These alterations safeguard that the infected program duplicates the virus. Not all viruses cause harm to its server. A virus is classically blowout form one computer to another by e-mail, or septic disk. Though a virus cannot pollute another computer until the database is performed. A common way of virus performance is when a computer user is deceived into initial a file criticized to an e-mail, thinking the file is a inoffensive program coming from a friendly basis.

Worms

A worm is impartial program that duplicates itself. A worm can breeze its way through a network system deprived of the need to be involved to a file, distinct viruses.

Trojan Horses

A Trojan Horses is an acquitted looking computer program that comprises hidden functions. They are overloaded onto the processer's hard drive performed along with the steady program. Nevertheless, unseen in the innocent program is a sub-program that will accomplish an illegal function. A Trojan horse is the best communal way in which viruses are presented into the computer systems.

B] Denial of Service

A Denial of Service ("DoS") is an dose or interruption designed for use in contradiction of computers linked to the Internet whereby one user can reject service to other genuine users simply by inundating the site with so abundant traffic that no other circulation can get in or out.

C] Cyberstalking

Cyber stalking is when a person is trailed and followed online. Their confidentiality is attacked, their every move observed. It is a form of nuisance, and can disturb the life of the prey and leave them feeling very scared and endangered. Pestering or being 'followed' are glitches that many people, particularly women, are acquainted with. Sometimes these problems (pestering & irritation) can happen over the Internet. This is recognized as cyber stalking.

D] Financial crimes

This would include duplicitous, credit card deceptions, money legalizing etc. To cite a fresh case, a website obtainable to vend Alphonso mangoes at a off-the-cuff price. Disbelieving such a deal, exactly few people replied to or complete the website with their credit card numbers. These people were really sent the Alphonso mangoes. The word about this website now blowout like wildfire. Thousands of people from all over the country replied and ordered mangoes by giving their credit card numbers. The holders of what was later established to be a fake website then escaped taking the many credit card numbers and continued to pass enormous amounts of money much to the humiliation of the card holders.

E] Cyber pornography

This would embrace pornographic websites; pornographic fortnightlies produced using processors (to print and publish the material) and the Internet (to download and communicate pornographic movies, pictures, texts etc).

F] Sale of illegal articles

This would contain sale of sedatives, arms and animals etc., by posting data on websites, sale websites, and communiqué boards or simply by using email message.

G] Online gambling

There are masses of websites; all held on servers overseas, that bid online gaming. In fact, it is whispered that many of these sites are actually faces for money valeting.

H] Intellectual Property Crimes

These comprise software piracy, patent breach, emblems defilements, robbery of computer source code etc.

I] Email spoofing

A fooled email is one that seems to initiate from one source but in reality has been sent from alternative source.

J] Forgery Counterfeit

Currency notes, stamp price and income stamps, mark sheets, etc can be bogus using classy computers, printers and scanners. External many colleges across India, one discoveries hawkers petitioning the sale of false mark sheets or even certificates. These are made using computers, and high quality scanners and printers. In fact, this

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has becoming a thriving business connecting thousands of Rupees being assumed to student gangs in altercation for these bogus but reliable looking certificates.

K] Cyber Offence

This occurs when offence takes place with the help of processors and / or the Internet. E.g. someone publishes offensive matter about someone on a website or sends an e-mails comprising offensive information to all of that person's friends.

IV. UNIQUE CHALLENGES

The tasks of the digital phase and for the examination of cybercrime or computer crime are many and varied as follows:

Bridging multi-jurisdictional boundaries

- Retaining and preserving evidence;
- Acquiring appropriate powers;
- Decoding encryption;
- Proving Identity;
- Knowing where to look for evidence;
- Tackling the tools of crime and developing tools to counter crime;
- Rethinking the costs and priorities of investigations;
- Responding to crime in real time;
- Coordinating investigative activities;
- Improving training at all levels of the organization;
- Developing strategic partnerships and alliances;
- Improving the reporting of electronic crime;
- Enhancing the exchange of information and intelligence;
- Acquiring. Developing and retaining specialist staff; and
- Avoiding „tech-lag‟ (or getting access to cutting edge technology).

1) Linking multi-jurisdictional limitations
2) Retentive and preservative evidence
3) Gaining proper powers
4) Interpreting encryption
5) Verifying Identity
6) Significant where to look for proof
7) Attempting the gears of crime and evolving tools to pledge crime
8) Reconsidering the costs and urgencies of soundings
9) Replying to corruption in real time
10) Organizing investigative activities
11) Refining training at all levels of the society
12) Emerging planned companies and unions
13) Refining the journalism of electronic crime
14) Improving the talk of information and intellect
15) Obtaining. Increasing and retentive specialist staff

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- Responding to crime in real time;
- Coordinating investigative activities;
- Improving training at all levels of the organization;
- Developing strategic partnerships and alliances;
- Improving the reporting of electronic crime;
- Enhancing the exchange of information and intelligence;
- Acquiring. Developing and retaining specialist staff; and
- Avoiding „tech-lag‟ (or getting access to cutting edge technology).

V. CYBER LAWS IN INDIA

Approximate highlights of the Act are as listed below

- Chapter-II of the Act exactly specifies that any subscriber may validate an electronic record by attaching his digital signature. It further more states that any person can confirm an electronic record by usage of a public key of the subscriber.
- Chapter-III of the Act specifics about Electronic Governance and delivers inter alia between others that where any law delivers that information or any other matter shall be in script or in the typewritten or

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published form, then, nevertheless anything contained in such law, such obligation shall be thought to have been satisfied if such data or matter is reduced or made available in an electronic form; and Available so as to be practical for a succeeding reference.

- Chapter-IV of the supposed Act gives a scheme for Rule of Certifying Establishments. The Act imagines a Controller of Certifying Authorities who shall achieve the function of exercise management over the activities of the Certifying Authorities as also placing down values and circumstances governing the Certifying Authorities as also agreeing the various forms and satisfied of Digital Signature Certificates. The Act knows the need for identifying foreign Certifying Authorities and it further details the several necessities for the subject of license to matter Digital Signature Certificates.
- Chapter-V of the act bounces the idea of safe electronic records and protected digital signatures
- Chapter-VI of the act stretches the rules, guideline, purposes & technique of the certifying authorities
- Chapter-VII of the Act details about the arrangement of things connecting to Digital Signature Certificates. The responsibilities of subscribers are also preserved in the said Act.
- Chapter-VIII of the act dialogs about the liabilities of the subscribers.
- Chapter-IX of the said Act speak about consequences and settlement for various offences.
- Chapter-X of the Act says of the formation of the Cyber Regulations Appellate Court, which shall be an appellate body where pleas against the instructions passed by the Adjudicating Officers, shall be favored.
- Chapter-XI of the Act speaks on numerous wrongdoings and the said crimes shall be examined only by a Police Officer not under the rank of the Deputy Superintendent of Police. These crimes include fiddling with computer source documents, reproducing of information, which is indecent in electronic form, and hacking.

VI. CONCLUSION

Criminal conduct on the Internet or on cybercrime, offers as one of the chief tasks for the forthcoming to India and International law implementation. As ICT convert even extra universal, facets of electronic crime will nose in all forms of criminal performance, even those stuffs presently regarded as additional old-style crimes. It is previously featured in numerous international crime linking drug trading, persons rustling, violence and currency cleaning. Digital signal will become more ordinary, even in old-style crimes and we must be ready to deal with this new experiment. Law implementation activities around the world are waged together to advance new companies, new criminological practices and new retorts to cybercrime in order to safeguard safety and security on the Internet.

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CYBER CRIME & CYBER LAW'S IN INDIA

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ABSTRACT
As it's know that this is the era where maximum of the things are thru usually over the internet starting from online big business to the online deal. Meanwhile the web is considered as universal stage, anybody can access the assets of the internet from anyplace. The internet technology has been by means of by the rare people for criminal events like illegal access to other's network, swindles etc. These illegal crimes or the offense related to the internet is named as cybercrime. In order to break or to penalize the cyber criminals the term named as Cyber Law was familiarized. We can state cyber law as it is the chunk of the legal methods that deals with the Internet, World Wide Web, and with the legal topics. It shields a wide area, surrounding many subtopics as well as liberty of expressions, access to and use of the Internet, and online security or online privacy. Generally, it is referred as the law of the web.

Keywords: Internet, Unauthorized access, Cybercrime, Cyber law, Cyberspace, Punish, Network

I. INTRODUCTION

The brainchild of Computer has made the life of humans calmer, it has been using for several purposes beginning from the individual to big organizations thru the globe. In simple term we can term computer as the machine that can stock and operate/process data or instruction that are trained by the user. Most computer handlers are using the computer for the specious purposes either for their individual benefits or for other's benefit since eras [15]. This contributed for the birth of Cybercrime. This has directed to the meeting in events which are unlawful to the society. We can define Cybercrime as the crimes keen using mainframes or computer network and typically gross over the cyber space chiefly the Internet [3]. Now arises the term Cyber Law. It doesn't have a static definition, but in a humble term we can clear it as the law that rules the cyberspace. Cyber laws are the laws that oversee cyber area. Cyber Crimes, digital and electronic signatures, data securities and solitudes etc. are understood by the Cyber Law [4]. The UN's General Assembly suggested the first IT Act of India which was grounded on the "United Nations Model Law on Electronic Commerce" (UNCITRAL) Model [5].

II. OBJECTIVE

The main goal of our paper is to range the knowledge of the crimes or violations that take place over and done with the internet or the cyberspace, alongside with the laws that are forced against those wrongdoings and offenders. We are moreover trying to emphasis on the security in cyberspace.

III. CYBER CRIME

Sussman and Heuston primarily projected the word "Cyber Crime" in the year 1995. Cybercrime cannot be termed as a single definition, it is best well thought-out as a group of acts or behaviors. These deeds are founded on the material crime object that disturbs the computer data or structures. These are the prohibited acts where a digital device or material system is a tool or a goal or it can be the mixture of both. The cybercrime is also identified as electronic crimes, computer-related crimes, in elevation technology crime, data age crime etc. In simple word we can explain "Cyber Crime" as a crime that takes place above electronic communications or data systems. These sorts of crime are essentially the prohibited activities in which a processor and a network are intricate. Due of the expansion of the internet, the sizes of the cybercrime happenings are also growing because when binding a crime there is no longer a need for the bodily present of the criminal. The rare characteristic of cybercrime is that the prey and the criminal may never come into straight contact. Cybercriminals often choose to function from countries with absence or weak cybercrime laws in order to cut the chances of finding and examination. There is a saying amid the people that cybercrimes can only be stubborn over the World Wide Web or the internet. In reality cybercrimes can also be resolute without ones participation in the cyber space, it is not essential that the cybercriminal should persist existing online. Software privacy can be used as an example

The cybercrime is grown from Morris Worm to the ransomware. Many countries counting India are at work to terminate such corruptions or outbreaks, but these attacks are endlessly changing and disturbing our nation.

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IV. CYBER LAW

Cyber Law seized natal in order to take switch over the crimes dedicated over the internet or the cyberspace or via the uses of computer assets. Explanation of the legalized issues that are linked to the uses of communication or computer technology can be named as Cyber Law.

Cyber law shows a very vital role in this new era of technology. It is significant as it is worried to nearly all facets of doings and dealings that take place whichever on the internet or other communication devices. Whether we are alert of it or not, but each act and each response in Cyberspace has some lawful and Cyber permissible views [14].

One must have the following information in order to stay alert about the cybercrime:

- Single should recite the cyber law carefully.
- Basic information of Internet and Internet's safety.
- Recite cyber crime's cases. By interpretation those cases one can be conscious from such crimes.
- Important application from reliable site can be used for guard of one's delicate information or data.
- More or less key opinions of the Information Technology (IT) Act 2000 are as follows:
- E-mail is now measured as a legal and lawful form of communication.
- Digital signatures are agreed as permissible validity within the Act.
- Act has set natal to new occupations, to businesses to issue digital certificates by flattering the Certifying Authorities.
- This Act lets the government to issue notifications on internet over e-governance.
- The interaction between the organizations or between the business and the administration can be done over internet.
- Speaking the issue of safety is the most significant feature of this Act. It announced the concept of digital signatures that confirms the individuality of a discrete on internet.
- In case of any damage or harm done to the firm by offenders, the Act delivers a remedy in the form of cash to the company [15].

Cyber Law took birth in order to take control over the crimes committed through the internet or the cyberspace or through the uses of computer resources. Description of the lawful issues that are related to the uses of communication or computer technology can be termed as Cyber Law.

- Bridging multi-jurisdictional boundaries;
- Retaining and preserving evidence;
- Acquiring appropriate powers;
- Decoding encryption;
- Proving Identity;
- Knowing where to look for evidence;
- Tackling the tools of crime and developing tools to counter crime;
- Rethinking the costs and priorities of investigations;
- Responding to crime in real time;
- Coordinating investigative activities;
- Improving training at all levels of the organization;
- Developing strategic partnerships and alliances;
- Improving the reporting of electronic crime;
- Enhancing the exchange of information and intelligence;

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- Acquiring. Developing and retaining specialist staff; and
- Avoiding „tech-lag‟ (or getting access to cutting edge technology).
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- Enhancing the exchange of information and intelligence;
- Acquiring. Developing and retaining specialist staff; and
- Avoiding „tech-lag‟ (or getting access to cutting edge technology).

V. CYBER LAW IN INDIA

Resulting are the sections under IT Act, 2000

1. Section 65- Stand in with the computers source booklets whoever purposely or knowingly abolish, hide or modify any computer's source code that is used for a processor, mainframe program, and CPU system or workstation network.

Punishment: Any individual who includes in such crimes could be penalized up to 3 years custody or with a fine of Rs.2 lakhs or by way of both.

2. Section 66- Riding with computer system, data modification etc. whoever with the determination or purpose to cause any damage, harm or to abolish, erase or to change any data that exist in a public or any individual's computer. Reduce its usefulness, standards or moves it injuriously by any means, binds hacking.

Punishment: Any creature who comprises in such crimes could be punished up to 3 years captivity, or with a fine that may cover upto 2 lakhs rupees, or both [14].

3. Section 66A- Distribution violent messages through any communication facilities

- Any data or communication sent via any communication services this is invasive or has intimidating characters.
- Any information that is false or is invalid and is sent with the finale goal of irritating, troublesomeness, hazard, abuse, barrier, wound, illegal intention, hostility, disgust or ill will.
- Any mail or electronic post sent with the end objective of causing irritation, trouble or misinform or to cheat the address about the source of the messages.

Punishment: Any single found to pledge such crimes under this section could be send to prison for up to 3years of custody along with a fine.

4. Section 66B- Getting lifted computer's resources or communication devices unfairly getting or retentive any stolen processor, CPU's resources or any communication plans meaningfully or having the aim to believe the same.

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Punishment: Anyone who encompasses in such crimes could be pronounce judgment on either account for a term that may cover up to 3 years of captivity or with a fine of rupee 1 lakh or both.

5. Section 66C- Classify theft Using of one's digital signature or one's PIN or any other unique ID of any individual is a crime.

Punishment: Any being who include in such crimes could be condemned either with a account for a term which may stretch up to 3 years of custody along with a fine that may spread up to rupee 1 lakh.

There are numerous other sections in the IT Act, 2000 amongst them a few vital sections are as follows:

Offences	**Sec. under IT Act, 2000**
Damage to Computer, Computer System etc.	Section 43
Power to issue direction for blocking from public access of any information through any computer's resources.	Section 69A
Power to authorize to collect traffic information or data and to monitor through any computer's resources for cyber security	Section 69B
Un-authorized access to protected system.	Section 70
Penalty for misrepresentation.	Section 71
Breach of confidentiality and privacy.	Section 72
Publishing False digital signature certificates.	Section 73
Publication for fraudulent purpose.	Section 74
Act to apply for contravention or offence that is committed outside India.	Section 75
Compensation, confiscation or penalties for not to interfere with other punishment.	Section 77
Compounding of Offences.	Section 77 A
Offences by Companies.	Section 85
Sending threatening messages by e-mail.	Section 503 IPC
Sending defamatory messages by e-mail.	Section 499 IPC
E-mail Spoofing.	Section 463 IPC
Web Jacking.	Section 383 IPC
E-mail Abuse.	Section 500 IPC
Criminal intimidation by anonymous communications	Section 507 IPC
Online sale of Drugs.	NDPS Act
Online sale of Arms	Arm Act

VI. CONCLUSION

The growth and propagation of a freshly developed technologies begin star to run many cybercrimes in latest years. Cybercrime has develop great dangers to mankind. Security against cybercrime is a vibrant part for societal, social and safety aspect of a country. The Government of India has endorsed IT Act, 2000 to pact with cybercrimes. The Act more study the IPC, 1860, the IEA (Indian Evidence Act), 1872, the Banker's Books Evidence Act 1891 and the Reserve Bank of India Act, 1934. Any part of the ecosphere cybercrime could be created transient national boundaries above the internet creating both technical and lawful complexities of examining and impeaching these crimes. The international consistent efforts, direction and co-operation amongst various nations are compulsory to take action on the road to the cybercrime. Our main tenacity of scripting this paper is to range the content of cybercrime amongst the communal people. At the conclusion of this paper "Cyber Crime and Cyber Laws of India" we need to say cybercrime can never be approved. If anybody drops in the victim of cyber-attack, kindly take a step forward and record a case in your adjoining police station. If the criminals won't get penalty for their action, they will at no time stop.

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E-LEARNING: A SUCCESS MODEL

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ABSTRACT
The paper has observation and a vast experience achieved from development and delivery of online quantitative methods in the field of Business undergrads. Variety of issues pop-up during development of online courses from which an inspiration evolved in form of a model which is advanced to discuss the question of how to make the design, develop it and delivery it for successful e-learning initiatives based on concepts of a user information systems development pattern. The advantages of using the projected model for e-learning successful assessment is validated through almost four cycles of research. Conclusions from our practical study help to confirm the value of an action research policy for encouraging e-learning success. The paper moves with the conclusion on the merits of the model been put forth to further understanding on of how to define, how to assess, and promote e-learning success.

Keywords: Quantitative, Business undergrads, E-learning, Development, Initiatives, Successful assessment

I. INTRODUCTION

With today's modern era, the media of exchange of information has changed rapidly. All the communication happens over internet. Lot of research is done over as to let know –

The Study been conducted by Pew Internet and American Life Project found on June 2005 that 137 million Americans as to correct 68% of American grown person use the Internet. More about 94 million American people use the Internet for daily activities as chatting, surfing some information, e-mailing, reading news, getting latest updates on weather forecast, messaging and online banking. Online and internet has brought histrionic changes in the field of education as well. Report states as on 2003, 100% of primary and secondary schools in the U.S.A. had Internet access. Later on schools started training on the internet courses with the help of computer based instruction. Post this rest of the schools took initiative to take up the courses and enroll for the same. Most of the schools have registered for the courses and have prepared the plan to take up to next level. For same online courses having well organized and full stack knowledge are also been prepared. Statistics give us the growth of e-learning since 1990's till 2002:

ƒ 14% growth of the country's public 4-year organizations accessible distance learning progressions (from 78% in 1997-98 to 89% in 2000-01); [1]

ƒ A 123% growth in employments in college-level, credit-granting distance education progressions (from 1.3 million in 1997-1998 to 2.9 million in 2000-2001; with 82% of the 2.9 million at the undergraduate level in 2000-2001); [1]

ƒ A 45% growth in the percentage of associations using asynchronous Internet-based technologies as the most used distance learning technologies (from 60% in 1997-98 to 87% in 2000-01). [1]

All these statistics provide a very strong suggestion that Internet based developments have altered traditional in class education to a new way of learning called as ink-less class or e-learning, definite by the Instructional Technology Council (ITC, 1998) as well as the National Center for Education Statistics (Waits and Lewis, 2003) as the process which will deliver all the required or enquired information to the remote areas via use of Internet, intranet/extranet, audio, video, radio, satellite broadcast, pen drive, interactive/smart TV,CD-ROM. supplied into the robot's movement.

II. LITERATURE SURVEY

What are the major factors that contribute success in e-learning? There are many attempts been made to address this query have stemmed in a large volume of circumstantial studies measuring the success of e-learning initiatives on various measures such as learning benchmarks (Pittinsky & Chase, 2000), learning styles (Byrne, 2002), learning environment (Jung et al., 2002), learning outcomes (McClelland, 2001; Motiwallo & Tello, 2000; Teh, 1999), teaching practices (Savenye, et al., 2001; Owston & Wideman, 1998) and cost-benefits (Smith, 2001; Lawhead et al., 1997) [2]. Some of these studies are guidelines or "best practices" of e-learning that are developed from case studies (Byrne, 2002; Smith, 2001; Pittinsky & Chase, 2000; Lawhead et al., 1997) [3]. The most comprehensive guidelines are Pittinsky & Chase's 24 benchmarks in seven areas: institutional

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support, course development, Chase, 2000) [4]. The remaining of the studies tried to discover a variety of factors and overriding variables that might cause an impact on the factors of success of e-learning. As a result, it is difficult to understand and separate the success factors of e-learning as there is an absence of agreement of what all factors constitutes success of e-learning. These apparently varied and confused opinions of best evaluation of e-learning are not astonishing given that research in this area is at its developmental stage with the recent acknowledgement of the educational potentials of Internet-based technologies. There is a need to combine and frame a full and complete model for evaluating e-learning. Another push back of these studies is that success measures are derived from assessing the results of the development effort only. There is also a need to enlarge the perspective of learning success from a result to a procedure perspective. This clubs together the main objective of this paper which needs to be addressed.

III. E-LEARNING SUCCESS MODEL

The proposed research paper proposes the implementation and use of an e-learning success model to take up with the design, development and delivery of e-learning creativities. Our e-learning success model is modified from DeLone and McLean's info systems success model (DeLone and McLean 2003) [5]. Composed from past works on info systems success there are six scopes of success factors which can be named as system quality, information quality, package superiority, use, user satisfaction and net benefit are known and merged into an overall success model. Not only did DeLone and McLean's model succeed in getting together a combined view of info systems achievement, but their prototypical also supported graft a procedure method to info structures success. DeLone and McLean (2003) recognized 16 experiential educations that cleansed provision for the families among the six dimensions of success factors. In addition, Rai et al., (2002) directed a confirmatory factor study and estimate of fit indices for the model. Their empirical evidence gave weight to the explanatory power of the model and authenticated the importance of using a multi-construct dependent measure of information systems success. The strength of viewing e-learning initiatives' development from an information systems viewpoint is supported by identifying that both of these efforts are fired by a common goal to attach a new growing ocean of technologies to meet the needs of their users.

In count, an alike journey has been undertaken by information systems researchers on their tries to identify factors that add to information systems success. Associated philosophies and information collected since the early 1980's can be helpful in causal to the chase of achievement in e-learning. Accordingly, a second objective of this paper is to inspect the applicability of an information systems success model to e-learning initiatives' development and assessment. [5]

Our success model of e-learning overt the process tactic to measuring and evaluating success. The model also includes success metrics developed exactly for the e-learning context being examined. The process method suggests that the complete achievement of e-learning creativities be contingent on the accomplishment of success at each of the three stages of e-learning systems development that is designing, delivery and result analysis. Achievement of the project phase is appraised along three achievement factor scopes which are quality of system, quality of information and quality of service. Success of the delivery stage is estimated along one success factor that is use of it. Lastly, feat of the output stage is evaluated along two success dimensions that stand like the user satisfaction and internet benefits. Victory of system design is essential to the victory of system delivery which in turn marks the success of system output. The success of system output however, has an influence on the success of following system delivery linking system delivery and final result stages.

IV. APPLICATIONS

- Giving the best customer service training by using e-learning
- Use of e-learning tools in sales training
- For effective use of online customer training
- E-learning solutions which can be utilized for safety training
- Industries can plan for new product customer training
- Making use of e-learning tools in healthcare training
- E-learning modules for educational training
- Provision of an online and communicating platform for students and staff for knowledge sharing on various different topics
- Platform for staff to make resources and sell them to earn money

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- Can have Secure login portals to students and staff for seeing their course materials
- Medium and Q&A section for improving communication among staff and students
- A way for the students to purchase different course materials online
- A platform which supports languages such as English, Japanese & Spanish

V. CONCLUSIONS

This paper on research of success of e-learning changes us a step nearer in connecting the influence of Internet-based technologies to improve learning. We established the applicability of an e-learning success model to take the designing, development and distribution of e-learning through four action research cycles. A main contribution of this research is in advancing our understanding of on how to describe, measure and endorse e-learning success. To this end, success in e-learning is defined as a multi-faceted construct that can be measured along six sizes including quality of system, quality of information, quality of service, use of, satisfaction of user and internet benefits occurring in three stages. The complete achievement of e-learning can then be assessed for each dimension. A low mark for any success length means a deficiency in that area and efforts can be keen accordingly to correct the shortage. Though the findings of the current study are strained from one scholar quantitative methods course, there is no aim to hesitate that the e-learning success model future here cannot be applied to other self-controls and graduate level of courses as well. In count, to extend the current student-centered viewpoint, a lengthy e-learning success model is projected that gives gratitude to the role that students, teachers and institution play in creation of e-learning a success. Upcoming testing and validating of both the planned and the extended model will be valuable to the continued development of this important research area.

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E-LEARNING USING THE CHALKBOARD SYSTEM IN LIGHT OF THE QUALITY OF EDUCATION AND CYBER SECURITY

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ABSTRACT
With the growing requirement on the Internet, and the devices connected to the worldwide network and the increasing probability of attacks and cybercrime is cyber security the important substance of e-learning safe, so can not visualize the development of any information action gone from attaining, and e-learning in the current time faces many tests, Maybe the most significant detonation information and knowledge , The most ecosphere's uuju233niversities and all colleges presently deliver advanced technical technologies for computer, internet and other multimedia for the growth of teaching, and became the construction of Blackboard from instructive assemblies which take an significant part of the educational technological situation. It is a acquainted means for maximum educational determinations, as well as providing and giving courses and debates. It similarly works to disruption the Inactivity between the teacher and the student, thus developing the educational process and making it more comfortable. service the e-learning by structure safe Blackboard develop The verbal of the age and has a important influence in refining the excellence of education, and communication between students automatically and linking it to cyber security has a important role in upholding the growth and excellence of e-learning, hence the position of research has touched numerous results and references was one of the most significant: The connecting of e-learning (Blackboard) to cybersecurity makes a safe education and delivers a great chance to give the chance to education to many clusters of civilization, providing data and information that socializes through networks for e-learning makes it more operative, As a Blackboard Cooperate tool to deliver online trainings and lectures as it exceeds places and times intermissions, it assisted distance training and feast education and complete beginners able to learn very effectively.

Keywords: E-learning – Education- Blackboard system - Blackboard Collaborate(Virtual classes) - Cyber security

INTRODUCTION
The fast growth in the field of current technologies has run to the growth of the instructive procedure and found it current approaches or so-called e-learning and the defense of its systems and agendas have been attained through cybersecurity, a set of structural , technical and procedural tools and performs meant at defensive computers and networks and the data from injury ,What brands e-learning active and have been compulsory us the work bazaar extensive vagaries Events in the arena of application of educational for courses , and the most significant of these variations the essential to study many of the technical skills, which compulsory by new specialisms this needs the memberships of the facility to evaluation the instructive sequences to keep up with the growths of the current time done the use of the accessible skills, specially e-learning signified in the Blackboard structure, which delivers interface tools for the student such as declaration, download sequences , Tests, task, debates , virtual classes. In my research, I aim to Application and beginning of e-learning in the light of the excellence of Learning and cybersecurity.

1- Application of the e - learning system is signified in the system Blackboard for progressions through the following gears: Performance of gratified, debates, tasks , calculation, activities, virtual classes and linking it to cybersecurity .

2- Learning the devices and making them to make the students methodically through inspiration, stating estimation and touched a set of grades, the most significant of which is the teaching of progressions using the Blackboard system works to increase the superiority of learning and harmonization the growth of electronic technologies and permits both instructor and student growth Effective information, skills and features if safe (linked to cybersecurity),And favor sets of the results and references.

In this article we will debate the following topics:

1. The idea of e-learning and its relative to cybersecurity, its stages, purposes, importance, benefits, advantages, blackboard system and its tools.
2. The alteration between e-learning and customary learning.

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3. E-learning surroundings.
4. Announcement types in e-learning surroundings
5. Values of e-learning in light of superiority and learning outcomes.
6. Main worldwide involvements in e-learning.

So I do not increase you here:

1-The idea of e-learning and its relative to cybersecurity, its heights, objects, importance, welfares, advantages, blackboard system and its tools.

The concept of e-learning
E-learning is a form of Distance learning and can be definite as a way of teaching using modern message devices such as computers, multimedia and Internet gates in order to connect information to the beginner as rapidly and defend the systems and programs of e-learning systems finished cybersecurity are a set of structural, technical and technical tools, To protect computers and networks and the data from injury.

E-learning levels –
Basic level: a even classroom learning with the interference of skill in a simple manner does not change the class attendance forever. Classroom Attendance 100% -

blend level: This level contains the mixture of classroom teaching and learning through knowledge and syndicates the advantages of classroom teaching and education through the skill classroom attendance 25-75% -

Full level: The benefit that the classroom presence is very little is incomplete to tests and some conferences and be knowledge through knowledge at a very high classroom attendance 10% - **Progressive Enrollment**: E-learning is used as other to classroom education. The part of the beginner here is the main role, where he or she studies self in single or supportive manner with a small group of generations and connections involvements in a synchronous or asynchronous way classroom appearance 0%.

E-Learning Objectives
1. Work on exercise and lingers education.
2. Working to deliver a diversity of instructive resources, which helps to decrease the singular alterations between students
3. Developing the services of learners, as it delivers information and knowledge a lot associated to traditional education methods as this type of e - learning delivers numerous sources of different information as well as the opportunity of conversation of educational involvements.
4. E-Learning provide for women with a great opportunity to complete their education, especially university education, to overcome the difficulties of leaving the home and attending university.

Importance of e-learning
1. It is a good confirmed of traditional education can be blended it's method with the usual teaching will be supportive and in this case the teacher refers students to some activities or duties based on electronic media.
2. Benefits from Learning and learning resources are available on the Internet, where millions of sites provide courses and information that can be utilized within the limits of efforts and possibilities available to learners.
3. Supports cooperative learning through communication and consultation with colleagues through communication and interaction tools on the Internet.

Benefits and advantages of e-learning E-learning has several benefits and advantages
1. makes chance for everyone to get the education
2. Increasing the ability of learners to communicate with each other by provide of this education from the communication in many directions such as discussions and e - mail, which would support the contribution of learners to raise their views and participate in the discussion.
3. Provide courses in any time.
4. Achieves what is known as self-education where any student's reliance on himself and this makes it The student is looking for information rather than just receiving it as is the case with traditional education.

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5. Able to overcome many barriers to access to traditional education such as Presence, time, place, working conditions.

BLACKBOARD SYSTEM AND TOOLS

Is learning management system from the company Blackboard is characterized by strength for other systems, where the system provided a variety of educational opportunities through the solution of educational problems and related administrative aspects and helps To break all barriers to face educational institutions and learners, and helped the system educational institutions to spread education strongly through the Internet. The system provides multiple tools that support the teacher and learner and is easy to browsing. It allows students quick access to content, discussions, tests, tasks, announcements, virtual classes, e-mail and assessments, tools for student assessment**.**

2. The difference between e-learning and traditional learning, for example, but not limited to the following:

A - the method of education used

E-Learning

It employs technological tools , where depend on multimedia presentations, discussion method and web pages**.**

Traditional education

Depends on the book does not use any means or methods of technology only sometimes**.**

B- Interaction

E-Learning

Based on interactive, where the use of multimedia to the learner for the electronic presentations, and deal with it as he wants, and allow discussions over the web interactively

Traditional education

Does not depend on interaction, since it is done only between the teacher and the learner, but is not always between the learner and the book, as a traditional method that does not attract attention**.**

C-Availability

E-Learning

Available at any time, so flexible and available anywhere, where you can enter the Internet from anywhere, so his education opportunities are available worldwide**.**

Traditional education

It has a specific time in the table, places are designed, and educational opportunities are limited to those located in the area of education**.**

E-learning environments: are represented below

Basic components

A) Teacher: Should be able to use modern teaching techniques.

B) Learner: to have the skills of self-learning and familiar with the use of the computer.

C) Technical support staff: Must be a specialist in computer and Internet components and education technology and can be provided through training programs or workshops or seminars and others.

D) Technical Support Manager

Basic equipment

A) Service devices. B) Internet use.

4. Communication types in e-learning surroundings

There are two sorts of e-learning partition as follows:

- **Synchronous e-learning:** This is an electric teaching in which the instructor happens the apprentices concurrently, so that they have concurrent communication as well as virtual classes

- **Asynchronous e-learning**: A communication among the instructor with the scholar, and asynchronous instruction. The staff member can develop foundations with a coaching and assessment plan on the education management system. Then the learner arrives any time and follows the lecturer's teachings to complete the education without concurrent communication with the instructor as tasks, discussion and e-mail.

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5. Standards of e-learning in light of quality and learning outcomes.
The achievement of any instructive and teaching system depends mainly on potential to globally decided quality standards. To attain excellence in e-learning, excellence matters contain from eight criteria As follows.

Course Overview and Introduction
The whole proposal of the course is made clear to the student at the beginning of the course

Education Purposes
Education drives or abilities define what students will be able to do upon completion of the course

Assessment and Capability
Assessment are essential to the education process and are designed to assess student progress in attaining the stated education purposes or mastering the capabilities.

Instructional Tools
Instructional Tools allow students to accomplish stated learning purpose or capabilities.

Course Events and Learner Interface
Course activities streamline and sustenance student communication and appointment.

Course Technology
Course technology provision students attainment of course purposes or capabilities.

Student Support
The course allows student access to institutional provision facilities significant to student success.

Accessibility and Usability
The course design replicates a commitment to convenience and usability for all learners.

6. Major global experiences in e-learning.

There are a number of countries in the developed world have carried out experiments in the application of different systems of e-learning started using tools to illustrate some of the concepts and experiences and finally Implementation with the application of advanced systems.

Previous studies

1. The results of the 2008 revision The Result of Using Courses and Designing Electronic Courses on the Internet on the Achievement of Students in the Faculty of Specific Education showed that the use of electronic courses increases students' educational success associated to the usual method.
2. The results of the study conducted by one of the researchers from Sultan Qaboos Institution of higher education in Amman showed that they started using electronic courses in 2001, where 8 electronic courses were introduced, with 981 students. The amount of courses in 2002 increased to 40 electronic courses were introduced, with 3001 students.
3. The results of the study 2007 The use of the Blackboard system in improving the quality of e - learning in Arab universities The value of e - learning by the Blackboard system lies in providing time and effort to the student and professor, In terms of encouraging innovation, stimulating mind and thought, it provides communication between student and professor at all times and everywhere.
4. A study entitled Information security and cybersecurity by Dr. Adnan Mustafa Al-Bar, Dr. Khalid Ali Al-Marji at King Abdulaziz University, in which he mentioned the future of cybersecurity in the Kingdom of Saudi Arabia and the protection of information security.

RESULTS

1. The importance of linking e-learning to cybersecurity There is a safe learning and provides a very great chance to give the chance of education to many groups of society
2. Working to secure and safety the data and information that circulates through networks for e - learning makes it more effective .
3. Statement of the cost of e-learning by the system Blackboard lies in the provision of time and effort to the student and professor and also provides the University's expenses, and is an effective system in the educational process.
4. The use of electronic courses is working to increase the educational success of students associated to the traditional way

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5. The importance of blackboard collaborate virtual classrooms as it is one of the main means to provide online lessons and lectures on the Internet as they transcend temporal and spatial separations and working on distance training and helped to spread education and made the learner able to learn very effectively.
6. E-learning is compatible with modern technology in education in the process of transferring knowledge and information as well as relying on printed sources of books, magazines ,journals, and researches, which in turn encourages the possibility of expanding this type of education and spreading its benefit to all members of society.

RECOMMENDATIONS

a. Developing education in general through improving the institutional and professional capacities and developing the academic and leadership skills of human resources through the principle of modernization of elements of the educational process since its initial stages and linking them to cybersecurity.
2. Provide students with the essential information and services to protect information from the growing threat of cybercrime.
3. Develop solutions to guard PC networks and information from threats and breakthroughs.
4. Find ways to qualify university professors to apply cybersecurity for e - learning in the educational process through training programs or workshops or seminars.
5. Developing the capacity of the faculty to improve the quality of education outputs in order to achieve the demands of the Saudi work market .
6. Providing an integrated educational electronic environment (computers, internet, software)
7. To identify technical, organizational and administrative means to prevent unsafe use of electronic information retrieval
8. Confirming the stability of e-learning and taking the necessary measures to enhance its protection.
9. Work on the rehabilitation and empowerment of university professors and stimulate innovation in the field of cybersecurity to contribute to achieving access to secure electronic education.
10. Combating electronic crimes through the identification of safe programs.
11. Suggestion development mechanisms for transition from traditional to safe e-learning.

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FUTURE OF E-COMMERCE IN INDIA CHALLENGES & OPPORTUNITIES

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ABSTRACT
E-commerce is certainly one in all the business choices that one can need to explore within the future. Ecommerce is said to bring forth paradigm shift within the world for commercialism. Prediction e-commerce is showing tremendous business growth in India. Backed by redoubled on-line user base and mobile phone presentation, Indian e-commerce has seen spectacular growth within the previous couple of years. Considering India's demographic dividend & rising net accessibility, the world is slated to scale larger heights. The present study has been undertaken to explain the current standing & future growth of e-commerce in India. Everybody in the world is getting mad for online shopping and online work. In the fast changing world the India is also now fast moving country as we start to discuss about development in the information communication technology era. Today India is the main market for online trades or shopping. The Indian government is also now going for online selling and buying the products, cars etc. The education in India is changing to online educations. The seminars are changing to webinars. So it is necessary to make changes in you with the flow of the market. Thus, India is now become a biggest marketplace for many big countries and big products. The paper is showing how will be the future of Indian commerce and condition after the maximize use of E-Commerce.

Keywords: E-Commerce, Population, Finance, Impact, Economics, Electronic, Growth

INTRODUCTION
1) E-commerce outlooks for electronic trade. It suggests that dealing in merchandise & services through the electronic media & web. The zoom of e-commerce in Asian country is being manage by bigger client alternative & improved convenience with the assistance of web the seller or merchant World Health Organization sells merchandise or services on to the client from the portal employing a shopping basket system or digital cart & permits payment trough charge account credit, MasterCard or electronic fund transfer payments. Within the gift situation e-commerce market & its house is increasing in demand further as a formidable show or vary of a selected style of services. E-commerce is already showing altogether areas of business, client services, new product development & style. E-commerce business is growing in Asian country owing to wide range of product with minimum value {wide vary|wide selection big selection} of suppliers & customers web. In this modern era each business units wish to hitch on-line business as a result of increasing magnitude relation of internet users in Asian country. E-commerce in Asian country continues to be in growing stage however it offers wide opportunity. The leading edge for business nowadays is e-commerce. E-Commerce stances on electronic business. It suggests that dealing in product and services through the digital media and net. On the web, it relates to an internet site of the seller, World Health Organization sells product or services on to the client from the portal employing a digital cart or digital basket system and permits payment through Master Card, positive identification or newt (Electronic fund transfer) payments. Additional merely place, E-Commerce is that the movement of business onto the globe Wide internet. E-Commerce has nearly long become the dominant on-line activity. There's no single definition of E-Commerce, it suggests that solely endeavour that is performed or joined to or supported by transmission.

The consequences of e-commerce area unit already showing altogether areas of business, from client service to new product style. In currently days E-commerce uses the computer network a minimum of some purpose in group action lifecycle. It may also cut back prices in managing orders and interacting with a good vary of suppliers and commercialism partners, areas that usually add vital overheads to the worth of produce and the facilities. For emerging countries like our Asian republic, e-commerce proposes lengthy chance. In Asian country it's still in aborning stage, however even the most-pessimistic projections indicate a boom.

THE OBJECTIVES OF CURRENT STUDY ARE
- ✓ To analyze this trends & opportunities of e-commerce in Republic of India.
- ✓ To examine the barriers of e-commerce in Republic of India.
- ✓ To find out the expansion factors of e-commerce in Republic of India.

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E-COMMERCE STATUS IN INDIA

Today e-commerce could be a saying in Indian society associated it's become an integral a part of our standard of living. The various websites are now provides and supplies any range of products as well as services. Then there square measure those, which give a selected product together with its allied services. India has a web user base of concerning 354 million as of June 2015. In resistance of being third biggest user base in world, the penetration of e-commerce is minimum compared to other markets like the us or France however is growing much quicker, adding around half-dozen million new entrants each month. The business agreement is that growth is at associate inflection purpose. Cash on delivery is that the most prioritily used payment method, signboard seventy fifth of the e-retail activities. Snapdeal, Flipkart, ,InMobi, Quikr, Amazon Republic of India, Paytm and OlaCabs, are the largest industries to buy and sell where. E-commerce has return a protracted means since its origin and is only obtaining larger. As technology continues to grow fast, e-commerce retailers area unit adopting newer techniques to facilitate sellers and patrons to sell and purchase on-line additional efficiently, because of ever dropping rates of net water sport – both for net and mobile interfaces – that is complimenting to the soaring population of net users

KEY DRIVES IN INDIAN ECOMMERCE ARE

- Huge amount of populace signed to broadband Internet, burgeoning 3G web operators, and a recent outline of 4G across the country.
- Augmented usage of on-line classified sites, with more consumers shopping for and commerce second-hand merchandise.
- Evaluation for various start-ups businesses.
- E-commerce has return a protracted method since its origination and is only obtaining larger.
- As technology continues to grow rapidly, e-commerce retailers are adopting newer techniques to facilitate sellers and patrons to sell and get on-line a lot of efficiently, due to ever dropping rates of web water sport – both for net and mobile interfaces– that is complimenting to the soaring population of web users

TECHNOLOGY TRENDS

1. Mobile

Brands have taken the mobile advertising route and square measure gradually reading. On-line retailers have completed the potential increase of web shoppers through their mobile phones in future. And as customers grow more leisurely with exploitation mobile devices for browsing and searching, they are currently a lot of receptive obtaining messages from brands via their mobiles. Businesses square measure implementing ways for integrating mobile into their promoting campaigns and before they do that, they'll got to create efforts to optimize legacy websites for mobile so as to boost client experience. this can be wherever responsive style can get play. Fixing the mobile clicks is imperative as associate unresponsive style could cause the client abandoning the site in a very few seconds inflicting a coffee conversion rate and poor come back on investments.

2. Social

Another vital thought is that the social side and marketers have complete its importance okay. Product and service feedback via online media channels have associate impressionable impact on the minds of the larger client base.

Advantages of e-commerce

To customers The distinct benefits e-commerce can give to the consumers embody however don't seem to be confined to the subsequent only:

- ✓ Customers have a far wider selection out there on the cyber market.
- ✓ They bear lower prices for merchandise because of exaggerated on-line competition among sellers.
- ✓ Growing to wide-scale info dissemination, consumers will compare merchandise, features, prices and even research reviews before they choose what they need.
- ✓ They fancy wider access to help and to recommendation from consultants and peers.
- ✓ They fancy saving in looking time and cash.
- ✓ Customers additionally avail of quick services and delivery of services and products.
- ✓ They even have the convenience of getting their orders delivered right to the door to door step.

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- ✓ Finally, customers area unit driven to e-shopping in hordes as even branded merchandise price less on information superhighway.

CONCLUSION

E-commerce is dynamical the means of shopping for & commerce of product & services in India. E-commerce is way forward for shopping. Because of E-commerce the gap has been reduced between manufacturer & client. in keeping with Indian population their large scope for e-commerce as a result of presently in India solely nineteen folks mistreatment net for commerce & shopping for goods & services thus remaining share we are able to thought of that we have a tendency to having scope in Indian Market. there's weak Cyber security Law in India that's why Indian folks face challenges toward e-commerce. the longer term of e-commerce in India would be bright within the future years if all essential factors would be enforced, by establishing cyber & have their advantages as per folks want. The role of state is to provide a legal structure for e-commerce in order that whereas domestic & international trade area unit allowed to expand their horizons, basic right like privacy, material possession, prevention of fraud, client protection etc. area unit all taken care of. The growth of e-commerce has been developed in rural yet as geographic area in reign in a position value for consumption, due to that a lot of folks have gotten joined with e-commerce & the quantitative relation of that's obtaining increase day by day. Several vital phenomena area unit related to e-commerce. The role of geographic distances in forming business relationships is decrease. E-Commerce is that the way forward for searching within the next three to five years, Republic of India can have thirty to seventy million net users which is able to same, if not surpass, several of the developed countries.

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IMPORTANCE OF DIGITAL MARKETING IN THE NEW AGE

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ABSTRACT
The reason of fast growth of e-Commerce is Digital marketing. Using this marketing strategy we can increases speed of buying and sealing. We can spread out maximum viewers or customer with the help of digital marketing and you can do that fast and easy. It certainly plays a important part in current commerce system. This method makes our business more fast and accurate. Digital marketing is extremely more reasonable than traditional offline marketing approaches. But one of the main advantage of leading your marketing digitally is the ease with which results can be traced and observed. Rather than conducting exclusive customer exploration, you can quickly view customer response rates and amount the achievement of your marketing campaign in real-time, allowing you to plan more efficiently for the next one. This study try to highlight the significance of digital marketing in the new age.

Keywords: Marketing, Digital Marketing, Ecommerce

INTRODUCTION
Digital marketing is advertising of goods or brands via various forms of electronic device. Digital marketing is frequently mentioned to as 'online marketing', 'internet marketing' or 'web marketing'. The word digital marketing has developed in famous over time, mainly in certain nations. In some nation like USA online marketing is quiet dominant, in Italy is mentioned as web marketing but in the UK and worldwide, digital marketing has become the most common term. **Digital marketing** is a subgroup of marketing which uses digital technology to place and trade goods. Digital media is so worldwide that customers have entrée to info anytime and anywhere they need it. Internet usage endures to detonate crossways the universe with digital pleasant a gradually important source of economic benefit in together B2C and B2B marketing. A great transaction of consideration must been focused on the great opportunities digital marketing offerings, with little attention on the actual challenges enterprises are facing going digital.

Online marketing is actual concept of marketing of goods or services using web technologies, mostly on the web, but also counting mobile phones, exhibition promotion, and somewhat other digital standard. The Internet is a communicating medium. It permits for the conversation of currency, but more than that, it permits for the conversation of value. A business on the Internet can increase value in the form of time, devotion and support from the consumer. For the consumer, value can be added in the form of entertaining, explanation and usefulness; content marketing is one powerful way to create significance.

Digital marketing policy to shapes on and adapts the values of traditional marketing, using the prospects and challenges offered by the digital standard. A online marketing approach should be continually iterating and growing. Since the Internet allows for near-instantaneous feedback and data assembly, online marketers should continuously be optimizing and refining their online marketing efforts.

1. VARIOUS WAYS OF DIGITAL MARKETING
The digital marketing business has introduced numerous online marketing networks which helps venders target the right audience and attract them towards the goods or amenity being marketed. It is this bang in online marketing that demands the need for a product to create a firm online attendance and project an image in bike with the platform being used as well as their vision and mission. For this motive, it is significant to understand not just what online marketing can offer your product or business but also the opportunity of various online marketing networks and how best you can apply these networks of online marketing. For a digital marketing movement to be rock solid and perform as well as expected, it is significant for you to identify the digital marketing networks through which your product or professional needs to be marketed; for not every network or digital marketing stage is applicable for businesses and products across businesses and markets. The right digital marketing network for your product or business also depends on your brand’s business goals. If your aim is to produce leads for your business and you’re a B2B product, it makes more intelligence to use stages that are business centric and have structures that will help you produce leads.

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1.1 EMAIL MARKETING

Email marketing, as the name proposes, is a digital marketing channel which is used to market brands and businesses through emails. Whereas email marketing turns the danger of emails getting into the Spam folder, it is still influential incomes of growing brightness of your product or commercial. Email marketing is used not impartial as a means of product consciousness, but also to produce leads, highpoint product suggestions, send out newsletters, and so on.

1.2 SEARCH ENGINE MARKETING

Search Engine Marketing or SEM covers the ground SEO which disregards, funded traffic from search engines. With SEM you gaining announcement space that seems on a user's SERP. The most mutual paid search platform is Google AdWords. Next, is Bing Ads.

The search engine controls a marketer a determined amount to display an advertisement in a number of places on a SERP produced from specific keywords or phrases. PPC or pay–per-click is single of the sample of digital marketing. PPC denotes to a marketing method where search engines custody a business each time their advertisement is ticked.

In current months Social media stages initiated accepting for PPC advertising. These advertisements show up in the newsflash feeds of a business's target spectators. This technique is a good sample of how the diverse types of digital marketing nosebleed into each other to form a whole digital marketing plan. In this sample, SEM edges with social media marketing.

1.3 ASSOCIATE MARKETING

Associate marketing refers to the procedure of paying for conversions. Think of it like signing a sales person for your goods or service. That associate earns a commission. You regulate the rate for associate marketing. You only pay for conversions. This means there is no upfront cost to associate marketing. Many bloggers or e-commerce websites use associate marketing.

When you choose to use associate marketing safeguard that all of your terms and boundaries are discussed previously. The associate represents your brand, so you want them to carry your brand's message close to them. Think about the kinds of words you want the associate to use. Of course, you need to make the deal work for the associate, too.

1.4 INFLUENCER MARKETING

Influencer marketing is in the middle of the newer types of online marketing. Influencer marketing usages persons with a huge online spread careful authorities by your target marketplace to drive traffic and deals.

Influencer marketing is well-known on social media systems like Instagram and Snap chat. Businesses hire Instagramers with vast followings to approve their product by post one or more pictures with the product. Companies now involve in Instagram or Snap chat "takeovers" where the borrowed influence controls the enterprise's social media platform for a given amount of time, most frequently a day. These social media coups energy the influencer's next to your social media channels cumulative your new groups and sole views.

Continuously make sure to do your research on an influencer before you decide to do business with them. You might need to confirm their Google analytics and mark assured their ensuing shows genuine and not complete of fake accounts.

1.5 SOCIAL MEDIA MARKETING

Single most famous types of online marketing is **social media marketing**. The growth of Facebook, Twitter, LinkedIn, Instagram, YouTube, What'sApp and many other platforms has created a increasing marketplace where businesses can connect with customers. As new platforms have seemed and grown, each offers unique advantages products can use to influence different markets. B2B businesses can advantage from using LinkedIn, while B2C businesses can choose from a range of platforms, depending on their spectator's inclinations and the types of gratified they can properties.

1.6 PPC (PAY PER CLICK)

Search, also known as PPC, is the management of paid advertisements in the search results of a search engine. These funded advertisements are classically located above, or to the right of the 'organic' search results and can be quite cost effective. Paying per click means you only pay when a prospective consumer clicks on your advertisement. You can control your cost by setting a daily budget of say €5 per day.

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1.7 ONLINE ADVERTISING

Online advertising be different from PPC in that you are advertising on other user's websites. For instance, you may need to buy excellent space on a exact website, and you would pay the website owner either based on the number of imitations, or the number of clicks the advert receives

2. SOME SPECIFIC BENEFITS OF DIGITAL MARKETING INCLUDE:

1. Cost-efficient: You can simply plan affective ***digital marketing strategy*** within your financial plan by the use of digital marketing that offers an inexpensive technique in comparison to other advertising channels such as radio, TV and more. A well-organized and well-managed *digital marketing campaign* can reach a huge spectators at a poorer cost than the old-style marketing methods.

2. Enhanced exposure: Reach frequent forecasts by switching to a ***digital marketing campaign*** within a small investment. Be originate where your spectators are looking for you. You will notice long term outcomes by using digital marketing.

3. Save Time: Digital marketing brings real time outcomes within no time. Time is valued for all of us, so why left-over even a Nano second. **Digital marketing** offers you casual to see the number of guests to your site, what is the version rate, what is the top transaction time, how many subscribers have added you in a day and more.

4. Social currency: Online marketing provides you a casual to produce ***engaging campaigns*** using diverse kinds of media. These movements can go biological on social stages, passing on from one individual to additional, hence gaining social money.

5. Brand Building: Brand building is what every commercial stabs to achieve and ***digital marketing***

Helps produce your creation by indorsing it on various stages, the more

3. CHALLENGES IN FRONT OF DIGITAL MARKETERS

- Propagation of digital channels. Consumers use various digital channels and a multiplicity of devices that use diverse protocols, necessities and interfaces – and they interact with those devices in different ways and for different resolutions.
- Increasing competition. Digital channels are comparatively cheap, compared with traditional media, making them within influence of practically every industry of every size. As a result, it's becoming a lot harder to capture customers' attention.
- Explosion data capacities. Consumers leave behind a vast trail of data in digital networks. It's enormously difficult to get a handle on all that data, as well as find the right data within explosion data volumes that can help you make the right decisions.
- Considerate Their Audiences. Speaking of attracting the right companies, many small businesses don't fully know who their target spectators is. This is where purchaser identities come in handy.

Consumer are important in the digital marketing world. They are semi-fictional demonstrations of your ideal consumers. You use actual informations about your current consumers and marketplace research to completely grow and build your buyer personas.

- Creating Valuable Content. Even if your small business has a good looking website, without respected, revealing content, your marketing won't deliver results.

Gratified that is directed and significant to your purchaser personas can entice the right guests to your site. Preferably, you need to run a dependable magazine schedule for your blog, record and edit videotape content, and generate sharable gratified for your social media channels.

4. REASONS FOR THE GROWTH OF ONLINE ADVERTISING

□□Advertisement can spread very large number of possible consumers globally.

□□Web dominance over other advertising medium.

□□Web page can be updated any time and changes or corrections are effortless.

□□Online advertisement works 24 hours a day, 7 days a week, 365 days a year.

□□In online advertisement specific interest groups or individuals can be targeted.

□□Online advertisement can efficiently use the convergence of text, audio, graphics, and Animation.

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Online advertisements are cheaper in comparison to traditional advertisement. There is no printing costs, no postage costs etc.

4. THREE SOLUTIONS TO DIGITAL MARKETING SUCCESS

1. Accomplish complex customer relations crossways a diversity of channels – both digital and traditional.
2. Reply to and pledge dynamic consumer communications.
3. Excerpt worth from big data to kind better decisions faster.

CONCLUSION

The main resolution of data gathering was to study the importance of digital marketing in the new era. What are the numerous problems faced by the Digital marketing. It also showed how the part of digital marketing helped in development of India. "The Role of digital marketing play vital role in business for growth. Because it's have less time and less amount do advertising through world. And also if any changes occurred in product we have to change easily and it create more awareness rather than traditional marketing .So it play major part in product awareness (i.e. especially in New product introducing).In this digital marketing we have to use so many types tools .so we lot of choices in digital marketing.

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INDIAN RURAL MARKET: OPPORTUNITIES AND CHALLENGES

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ABSTRACT
The Rural Marketing plays a very important role in the lives of people in Indian Economy. The rural market is a main cause in India which brings in greater revenues in the country. The reason being most of the rural regions contain of the maximum clients in this country. Rural Market in India yields almost more than half of the country's revenue. Indian Rural Marketing has always been hard to guess and contain of special distinctiveness. Though many companies were effective in keeping a toe in the rural markets. They shot the market with its proper consideration and advanced marketing ideas. It is a challenge for the companies to oversee the opportunities offered by the rural markets. As few of Indian population happens in rural areas, the market is much unexpected for the companies to be actual in rural markets. They have to face and find a answer for few tasks such as pricing and distribution. The current paper goals to know the status of rural market in India and identify different rural marketing implementation strategies. This highlights the opportunities and challenges of countryside promotion in India. The main purpose of the study is to see the possibility of Indian countryside marketplaces and discovery out several problems actuality tackled by rural markets.

Keywords: Rural Marketing, Revenue, Opportunities, Challenges, Companies, Potentiality, Indian Market

I. INTRODUCTION
Indian Rural marketing is still in its early stages. It is a part of nightfall to Indian entrepreneurs even though with its huge size and request base, it deals surplus of opportunities to marketers. About 70 % of the country's customers are in the rural market and about half of the national income generates from here. The rural market is very much larger as compared to the urban area in combination and signifies the largest potential market in the country. Still various problems are faced with respect to marketing, designing of product, placement, pricing, spreading and promotion. Industrialist's today must know the rural market in different situation to extend their business horizon, to develop their market and to take advantage of the occasions available in the rural areas. The Indian rural market is huge and vast in amount with its lager customer base. It also offers great openings for the marketer. The marketers must appreciate the growing difficulties of the rural market and develop the policies to handle them successfully. The key to face the experiments is to get know the market, the customer requirement and behavior.

Henceforth, it is planned to assume in this paper to evaluate the numerous measurement of Indian rural markets. Among the total of million populations in India, the bulk of rural populations is 800 million which contributes around 70% of rural populations as per survey up to 2011. During the period of 2001 to 2011 the rural population increased by over 90 million and the number in villages also increased by 2000 in between 2001-2011. The common of world's rural population take in air in rural India. The request and existing pattern of Indian rural habitants are unlike and varies significantly. The cultural dimensions also vary to an extent. These aspects certainly make a brand on the need and performance of rural customers. With its huge size and extensive array of customers, market shear been discovery it difficult to understand and go in to rural areas, and outcomes to understand the models of entering into the rural market.

II. LITERATURE SURVEY
There are variety of studies been carried out in India in context with rural marketing which have discovered a major hindrance of unpredictable attitude of under valuing a potential cause like rural marketing. These studies have thrown focus on the rural marketing aces and scams and its scopes in various fashion. There are many researches approved out in India in context with countryside promotion whereby Narayan Krishnamurthy (2000) researched that by use of the regional language it becomes much stress-free to increase the entry in rural areas. Rakesh Singh and Kapil Bhagat (2004-05) clarified that the corporate and rural India have move into combined partnership through upright co-ordination. Vivek Parikh (2001) pointed out that most of the rural marketers undervalues the vocal power magic of words to pop into the rural market and again (2008) he further added some another scope necessary for marketers. Pradeep Kashayap and Siddhartha Raut (2006) explained that numerous facets of rural marketing like the rural clients, rural marketing study, rural products, valuing, delivery strategies and the role of media and government beginning added in inspiring the rural market. Tarun Narayan (2005), HansaYonga (2004, N. Janardhan Rao (2004, and Y. Krishan Mohan Reddy (2006) focused on

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experiments faced by the marketers and openings available to them. These lessons on related problems are useful or specify the type of problems and possible logical shortcomings and propose new line of approach to present and revise the problematic in new setting. R.V. Badi and N.V.Badi (2004) are of the view that Rural market growth in India will help the process of triggering factors of production leading to higher rate of economic growth, dispersion of economic activities, growth of rural and tribal parts, service disruptions, development of alive morals of rural masses by empowerment and their active participation in the process of progress. Awadesh Kumar Singh & Satyaprakash Pandey (2005) feel Indian rural market can be called a "dead to the world giant" since it grips huge unused potential and Rural market environment as altered along with the rural consumer who has become aware regarding quality and price. Prof. C.K. Prahlad (2007) computes that the future lies with those companies who see the poor as their clients. He in addition explains that what is needed is a healthier approach to help the poor, a method that involves joining with them to transform and achieve justifiable win-win scenarios where the poor are vigorously engaged and simultaneously the companies providing products and facilities to them are gainful.

III. DESCRIBING RURAL MARKET

According to the national commission on agricultural: 'Rural marketing is a procedure which starts with a decision to harvest a saleable farm product and it includes all the aspects of the market assembly or system both useful and official based on technical & economic thought & comprises of pre & post-harvest actions, collecting, classifying, storing, conveyance & delivery. FMCG sector identified "Rural" as room with a population less than or equal to about 20000 people. FMCG mentions to client non-durable goods required for daily or common use. They move very fast at the sales counter. Normally customer allots less time and efforts in buying these goods. Those are comparatively high volume and low value products. The FMCG sector contains mainly of sub-segment viz., personal upkeep, verbal care and family circle products.

Rural marketing means those business events that bring in the sense of goods from urban sectors to the rural areas of the nation as well as the marketing of non-agriculture delivers from rural to urban regions.

The important features of rural market are as follows:

1) The rural market has been feeling a considerable switch the last few decades. This is the outcome of generation of new employment breaks and new source of income made available through numerous rural development programs.
2) The rural markets are by and large less exposed, less exploited and largely agriculture oriented.
3) Indian rural market is gigantic in size, encircling 834 million customers and it is spread and wide-spread over 6.40 lakh villages and these villages are not even in size.
4) The rural markets are branded by small buying power and low per capita income hit with high sense of investments, low literacy rate, resulting in low standard of living.
5) In addition to this the societies, spiritual pressure and ethnic values are the delaying factors for an uphill social mobility. Apart from this, the delivery of income varies considerably due to the difference in the landholding design. Hence rural population presents a highly varied market.
6) The purchasing powers of the persons in the rural areas mostly be contingent upon wanted agricultural extra and rural-urban employment. Rise in merchantable extra of food ounces leads to the intake of manufactured customer goods. To a larger amount Indian agriculture depend on precipitation and therefore, rainfall indirectly effects the rural demand for consumer goods. The government spending with numerous systems /development on irrigation, flood control, set-up development anti-poverty schemes and fertilizer's grant directly generate income and lead to the intake of manufactured items and enhanced the condition of the rural masses. The purchasing behavior of rural customer is different from urban customer. The rural consumer is more of an adopter than a modernizer.

IV. APPLICATIONS

- Rural marketing of consumer durables
- Rural marketing on financial services
- An app for logging complaints that will be registered directly to the government
- Rural marketing for agricultural inputs
- A scope of implementation for marketing the agricultural produce

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- Way to propose marketing of rural artisan products
- An app which will take forward the e-Rural marketing
- A guidance portal on social responsibility in rural market
- An app which will help to detail on crop specific information
- A Online application to contact the patients and case finding

V. CONCLUSIONS

Agriculture sector being in need of well-functioning markets which can initiative growth, employment and monetary wealth in rural regions of the nation. Rendering to the modification to the state (Agriculture Produce Market Committee) APMC recital for deregulation of marketing scheme in the nation. The persistence of this paper is to inspect the potentiality of Indian rural markets and discovery ready to numerous difficulties are existence confronted by rural dealer. There are huge instances which companies can achieve for their development and expansion. Literacy rate is stumpy in rural area so people are incapable to classify brand difference. The Rural market has a greater future vision available for the marketers and there have many prospects available for them in rural markets.

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INFLUENCE OF DIGITAL MARKETING ON INDIAN RURAL MARKETING

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ABSTRACT
Now a days, marketers see an untapped potential in the rural segment of the country due to the economic shifts which in turn leaded to rise in purchasing power of the rural community. The companies are facing huge challenges to meet the needs of rural people and this brings rural marketing to grow faster than that of urban marketing. Lately, introductions of schemes by major telecom players such as cutting down cost of data packs have resulted in significant rise in number of internet users in the rural segments. Also in-situ, launching of cheap range smart phones has contributed to the cause. In a way now this untapped potential in rural markets can also be targeted via digital means. This paper focuses on what digital mediums of marketing can be used, and which type of products can use these digital mediums to expand their consumer base to the less emerged segment of consumers

1. INTRODUCTION

Rural Marketing is the process of taking region specific goods and services to the rural market leading to exchanges between urban and rural markets simultaneously satisfying consumer demand and achieving organizational objectives. And extend the outreach of the company to complete the objective of organization.

In 1990 rural market was not develop as much in India, which can have to much opportunities and scope. There are some thing can taken place to develop the indian rural market because rural market can also important part of indian economy. The rural market can also change to much in last 20 years.

2. WHAT IS DIGITAL MARKETING

Digital Marketing is the way of promote the goods and services through electronic or digital media, that means internet, mobile, social media, search engines, display advertising and other channels to reach consumers. But some other technology are work behind that are

Short Message Service (SMS), Simple Notification Service (SNS), search engine optimization (SEO),email marketing, pop up advertisements, e-commerce electronic or interactive billboards and other online ads (such as banner ads), etc….

METHOD OF DIGITAL MARKETING

A. Marketing through Content

This type of marketing concentrate on developing, publishing and distributing goods and services to target audience through digitally. It is also used by organizations to attract and develop leads, increase their consumers base, generate or increase online sales, increase brand awareness or reliability and engage an online community of users. It attracts, diagnoses and renovates prospects into consumers by creating and sharing valuable free content. Marketing through content helps companies create supportable brand loyalty, provides respected information to consumers, and creates a enthusiasm to purchase products from the business in the upcoming. This comparatively new method of advertising does not include straight deals. Instead, it builds trust and relationship also increase the goodwill with the audience.

B. Online tracking

In online tracking system it observes user behavior to collect information about his preference, needs and interests then provide him advertisements based on that. This helps in attracting the customer towards its need.

C. Social Media Marketing

This type of media podiums and websites used to promote a goods and services. This very popular marketing media now a days, it is very cost effective but more effective way reach the customer. The organization can use some built in analytics tools, which is used to track the progress, success, and commitment of ad promotions. Organizations reports a range of stockholders through social media advertising, including current and potential customers, current and potential employees, journalists, bloggers, and the common people. On intentional equal, social media marketing contains the administration of a marketing promotion, governance, setting the choice (e.g. more active or passive use) and the formation of a firm's wanted social media "culture" and "tone."

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D. E-commerce
In this type of marketing websites or platform perform data oriented advertising. It means when users can provide their data like email ids and contacts. Theses information can be used to advertise their goods and services also provides the offers and introduces new products. Consumers can receive the text message on phone or emails about the offers of particular brand.

E. Search Engine Optimization (SEO)
Search engine optimization (SEO) is the process to optimize the website ranking on search engine. Increasing in the ranking help to user to catch the information. When user insert their key words on search engine on that time our website will come on top of the list then the customer can look out our website. Because user not habitual to remember the URL of website or do not now the URL of that website on that time SEO of our website is very use full.Their are various type of target for SEO that are examine, counting image search, video search, educational search, bulletin search, and industry-specific. SEO various from local search engine optimization in that the arguments is absorbed on optimizing a governments' online incidence so that its web pages will be showed by search engines once a user arrives a local search for its goods or services. The previous instead is more focused on national or international searches.

F. Mobile Marketing
This type of marketing is used for to reach specific customers on their mobile phone, tablet or other device media via SMS, MMS, Social media and mobile applications Mobile marketing can deliver customers with time and site thoughtful, adapted info that indorses products, services and ideas. In a more theoretical way, instructive Andreas Kaplan describes mobile advertising as "any marketing activity conducted through a ubiquitous network to which consumers are constantly connected using a personal mobile device".

G. Remarketing
This has essential part in the marketing and it helps in separating the attentive consumers straight them to the website by placing the advertisement in front of him. In this system people finding for somewhat or visit a specific website and based on that the definite advertisement is located in facade of him.

4. REVIEW OF LITERATURE

 Erda CV (2008)[1] studied the relative purchasing performance of rural and urban customers on mobile phones. The study highlighted the difference in terms of consciousness about price, quality, style, function and brand. It was concluded that rural segments pay less attention towards the quality, function, and brand and are more conscious about price and style. It was concluded that minor modification or extrapolation of urban marketing strategies might fail in rural marketing.

 Pooja and Neha (2014)[2]in their study examined the scope of rural marketing in India. They concluded their findings that there exists a large scope of marketing, provided that improvement in infrastructures is carried out. It also stated that the rural market is yet to be exploited.

Saroj Kumar Verma (2013)[3] examined the challenges and opportunities of rural marketing in India. One of the major challenges identified in the study were the non-homogenous and scattered nature of the market. Other challenges included seasonal marketing, low per capita income, transportation, and warehousing On the other hand, a huge population seen as huge consumer base in rural segment is admired as an opportunity for the marketers to channelize their efforts. Increase in purchasing power, as reported by Rural Marketing Association of India (RMAI) is another conclusion of the study which highlights that there indeed exists an untapped market in this segment.

 Edward J. Malecki (2003)[4] worked on the potential and pitfalls of digital development in rural areas. Clearly there are potential benefits of the digitalization in rural area which increases the efficiency of the work but it also has downfalls like it would be the cause of shortage of human capital. As there is increase in technology the goods and services are available at a click away from people and that has reduced the human interaction. Internet and mobile have become integral part of our life, whether in case of telecommunication, entertainment or marketing.

5. TECHNIQUE AND MATERIAL

The study is expressive in landscape. Secondary data collection method was applied. The informations used in this study has been collected from different websites and published papers.

Rural marketing is developing opening for venders to capitalize. With its large customers, a business can effectively produce optimum ROI. Many businesses have already initiated to market their goods in the rural markets. But till now the methods used are typically on traditional advertising techniques. These methods aspect

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their own tests such as distributed markets, nonhomogeneous behavior of consumers, favorite for local goods and storekeepers, and increased cost of travel and moving. Thus, shifting from on traditional marketing to digital marketing can prove to be satisfying in the division.

ADVANTAGES OF DIGITAL MARKETING AS FOLLOWS

A. Direct Marketing*:* Direct marketing helps an advertiser to create responsiveness about a goods or product. Now a days each business can simply display their announcements for products or facilities on diverse digital channels. Direct marketing is a noble choice for a marketing policy. It can fascinate a big mass and grow your business.

B. Broader outreach to consumers: No barricades in terms of less connectivity, dispersed topography, or land. it can connect to large range of consumers as early as possible. A manufactured goods can be promoted in any isolated locations using digital media for advertising. Thus, giving it more number of customers to target with the accessible group of resources.

C. Rapid Feedback: In traditional advertising has a main problem in terms of feedback to advertising approach applied. To examine the purchaser's response to the manufactured goods, more number of man hours are capitalized and most of the time it becomes boring task to carry out the response reviews. In difference, digital advertising can simply keep a track of customers who are attentive or incompletely interested in creation only by including the number of clicks on the advertisements. Also, with use of modern software anyone can easily examine the data and performance patterns. Further, number of bouncers can also be logged and other methods can be applied to transport them on stage too.

D. Easy Product Advertising: As the knowledge and internet have advanced a lot, the produce's may take a countless advantage of customer's grasp and co-operate it's customers successfully. Growth of a business depends on the being of the internet. It can grow your business from any local market to countrywide and universal markets at the same time

E. Cost reduction in transportation: The features that needs to be put up at considered localities needs to be transported from the head divisions to the target locality. Due to bad roads and distant assignments of urban villages it results in a very high cost of transportations. In case of digital advertising this cost is cut down significantly. All the features can be predictable on particular media through digital resources which resources no travelling involved.

F. Helping Dealers Business: It is a excessive occasion for an individual who is making digital policies and helping businesses to enlarge their business. These strategy creators help to produce the commercial of a company and himself/ herself makes their own profession also. Digital promotion has extent huge profession options for digital vendors.

G. Any Time Available: The World Wide Web never rests for any time. So the promotions will work for 24 hours. Using the digital business, your promotions will actually current for 24 hours a day and 7 days a week and 365 days in a year. Promotion will always be in front of your targeted consumers. This is one of the main significant structures of digital advertising that we cannot duck while speaking around advantages and disadvantages of digital advertising.

H. Customer's Convenience to Purchase Online*:* Online purchasing is increasing trend. For the approval and abilities of digital promotion, consumers are more interested in online purchasing. A consumer can buy item whether it is in his/her republic or in overseas. Nowadays distance is not a problem to a consumer. Also, a consumer can get the occasion of choosing his/her material from so many options. A large share of people now likes online purchasing for its so many benefits. So, digital advertising opens up a new chance for both the business and the purchaser. Now a vender and a consumer can connect with each other very easily.

I. Universal Advertisement: This is single of the greatest significant features of digital advertising. It enables the businesses to promote worldwide and there is no barrier, having so many physical differences. So, a business can easily increase its business without any extra effort. Sitting in a distant place, a business can extent its business throughout the universe. This will lead the business to show off it features to the rest of the universe.

Digital advertising is not limited to recognize requirements only, but also is a useful instrument to identify the inborn needs of the customers. It can be an operative tool to instrument push advertising for the market growth of any goods. At the same time, retailers must appreciate that the possibility of the product that should be

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pushed into urban division is limited. Any goods which has physical form should be inspected before being endorsed in the urban segment. The cost of physically transporting the goods must be understood prior to advertising to avoid any waste of money and effort. The few types of manufactured goods that could find digital advertising helpful:

1. Social Media: Growing craze of connecting to friends and remaining in touch 24*7 have given these networks an huge market already waiting for them. With digital advertising indorsing these networks, they can easily enter into the new market and increase a lion's share.

2. Online learning courses: These goods have a high range of market expansion in urban segment. With the growing literacy rate and understanding towards importance of education in the youth, these apps can easily build capable consumer base.

3. Online Ticket booking systems: Online ticket booking websites and agents industry in booking of railway tickets, parcels, airline tickets, hotel booking etc. can find a considerable number of clienteles looking for easy earnings to get their bookings. Thus, these products can also have a positive response from digital advertising in urban areas.

4. E-Commerce in low cost goods: Apps and websites industry in low cost product such as FMCG and others might find it useless to invest in the urban sections. This is because the cost of physically transporting an ordered good might negotiation their profits. Thus, these goods should carefully inspect their overall costs involved before taking a step forward.

5. Games: With the youth becoming more habituated to online gaming, these apps already have consumers waiting for them. Many apps might find it cake walk to enter these markets and increase a share. Further, these stages can themselves serve as a media of advertising, hence improving on their earnings.

6. Music and Video Apps: Apps dealing in music and movies have a great available chance in the urban market. On-ground advertising methods might be almost unusable whereas digital marketing might help them reach right set of consumers in the urban market.

7. Informatory applications: With the technology penetrating the world at an exceptionally speed, applications providing services like news, GK, current affairs, etc. might make their physical complements outdated in coming years. They have high possibility of gaining existing consumers who are already involved in their physical supplies. All these resources discussed above can themselves act as a transporter of advertising methods. This is another advantage of digital advertising. The media used as channel for digital advertising can themselves be a goods. Thus, businesses can have mutual relations to endorse goods of each other, thus saving cost of marketing.

6. CONCLUSION

Digital advertising in urban area is quite untouched area and has lot of available prospective but the methods are yet being planned to discover this area. Being the time effective, mostly compressed and easy availability, there are certain benefits of digital advertising. The increase in technology modification also increase the experience to the people, and it opens up the opportunity of social networking, online courses, ticket booking system and several much more. Up until now rural market is product focused not the service driven, with information of product available earlier to the customers lets the business to forecast performance of actual product before induction it, which helps in planning for the outcomes.

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PRACTICE & BARRIERS OF LEARNING WITH ICT FROM TEACHERS' PERCEPTIONS

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ABSTRACT
In this digital age, ICT use in the classroom has become significant for giving students prospects to learn with a greater pace and with technology to be with the world outside. Despite lots of budgeting and accommodation of funds; there are several barriers regarding appropriate use of Information and Communication Technologies. Therefore, it becomes important to study the issues related to the use of ICT so that these barriers can be removed and learning can become more effective. Therefore, the main resolution of this study is to analyses teachers' perceptions and blockades faced in using ICT tools in classrooms for learning. A qualitative research plan was used to assemble the information randomly from government school teachers of 10 schools of Delhi. Total main topics and barricades originate to be vital in using ICT tools by teachers were: restricted suitability and network connection, restricted technical support absence of authentic training, inadequate time and lack of training capability. This study delivers clear picture of possible barricades encountered by the teachers in using ICT in learning process. This study also helps in making appropriate changes in the school and classroom organization so that ICT can be better incorporated in the learning process.

Keywords: ICT, learning, teacher, barriers

INTRODUCTION
Education plays a very important role for societies. For every nation proving its population, the quality education is a foremost goal. In this era of technology and science; Process of learning changed a lot over time. From blackboard to smart boards, from notebooks to tablets. From computers to laptops etc. technology and science is everywhere. Information and communication technology is an inevitable part of most of the institution these days (Zhang& Aikman, 2007). Due to increasing importance of ICT in society it becomes important to identify the possible barriers and barriers for improving the quality of learning. Even though teachers acknowledge the importance of ICT in schools, they come to an end encountering barriers in adding technology into learning procedure (Balanskat, Blamire & kefala, 2006).

LITERATURE REVIEW
Barricades in exhausting ICT in education and learning Assimilating ICT into education and learning is a difficult procedure and some that may encounter a number of problems are recognized as "barriers" (Schoepp, 2005). The following are some of key barriers that have been recognized in the literature concerning teachers use of ICT tools in classroom.

Limited accessibility and network connection
There are number of studies that talk about the barriers faced by the teachers in incorporating ICT tools in the classroom's learning process research indicates some reasons for absence of access to technology. The unapproachability of ICT resources is not always merely due to unavailability of the hardware and software or further ICT materials in the schools. It may be the result of one number of factors such as poor resource organization, inappropriate software, poor quality hardware or lack of personal access for teachers. The barriers related to the accessibility of new technologies for teachers are widespread. Unfortunate access is one of the key barricade for ICT furnished learning, lack of access includes many things such as lack of access and lack of adequate material (Empirica's, 2006). Pelgrum (2001) explored practitioners' opinions from 26 nations on the main problems to ICT proposal in schools. There are barriers like insufficient number of software's, insufficient units, slow speed of systems, old systems and insufficient access to internet (Toprakci, 2006). Moreover, insufficient computer resources impede to technology use in the classrooms and it is one of the greatest barriers in integrating ICT into learning process (Albirini, 2006).

School with limited technical support
Unless and until good technical resources and school and classroom organisation would not be according to the ICT requirements these obstacles cannot be removed. (Lewis, 2003). Pelgrum (2001) found that in the view of primary and secondary teachers, one of the highest barricades to ICT use in education was lack of technical knowledge. In Sicilia's study

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(2006), technical difficulties were establish to be a major obstacle for teachers. These technical obstacles included waiting for websites to open, failing to link to the Internet, printers not printing, Malfunctioning PCs, and educators needing to work on old PCs. "Technical barricades obstructed the smooth delivery of the lesson or the normal flow of the classroom activity" (Sicilia, 2006, p. 43).ICT integration in coaching desires a technician and if one is unavailable the absence of technical support can be an problem. Due to this deficiency of technical support or unsuitable lack of technical support ICT combination in learning procedure in schools is suffering.

Lack of effective training

The barriers most habitually denoted to in the literature is absence of functioning teaching (Albirini, 2006). Due to lack of effective raining teachers are unable to use ICT in the learning process.

Also, there were not sufficient training openings for teachers in using ICTs in a school environment (Pelgrum, 2001). In this regard there is a need to review teacher training curriculum. One of the highest three barriers to teachers' practice of ICT in training was the lack of preparation (Beggs, 2000). These were period for training, educational preparation, skills training, and an ICT use in primary teacher training. Consistently, recent research by relating to several subjects concluded that deficiency of training in digital knowledge, absence of educational and didactic training in how to use ICT in the laboratory and lack of training regarding technology use in particular subject areas were Problems to using new skills in classroom practice. Some of the studies reported similar reasons for failures in using educational technology: the weakness of teacher training in the use of computers, the use of a "delivery" instruction style instead of investment in modern technology , as well as the Lack of qualified teachers to use the technology confidently .Given that informative training to educators, instead of simply training them to use ICT tools, is an central issue argue that if instructors are to be unfair of the value of consuming ICT in their coaching, their preparation should focus on the educational questions.

Limited time

Many recent studies indicate tat the teachers want to use ICT tools in their classroom bur the school time table does not allow the teachers time. Fixed time tables and short periods work as barriers for using ICT into learning process. A significant number of researchers known time boundaries and the suffering in preparation of sufficient computer time for classes as a barricade to teachers' usage of Technology in their instruction. The most common barriers reported by all the teachers was the lack of time they had to explore the different internet sites, plan technology educations, or look at numerous aspects of educational software (sicilia, 2006).found that the problem of lack of time exists for teachers in many aspects of their work as it affects their ability to complete tasks, with some of the respondents Precisely stating which features of ICT require more time.

These contain the time needed to discover Internet advice, make Instructions, discover and repetition using the technology, transaction with technical problems, and receive satisfactory training.

Lack of teachers' competency

Lack of teachers' competency is directly related to the teachers' confidence. Several teachers lacked the skills and knowledge to practice computers and were unenthusiastic about the variations and integration of additional learning related with passing computers into their teaching practices. Present studies have shown that the level of this barrier diverges from nation to nation. In the developing countries, research Reported that teachers' deficiency in technical capability is a main barrier to their acceptance and adoption of ICT (Pelgrum, 2001). Another worldwide survey conducted by Pelgrum (2001), of nationwide illustrative samples of schools from 26 countries, found that teachers' lack of information and skills is a serious difficulty to using ICT in primary and secondary schools.

Objectives of the study

- To explore the barriers faced by the school teachers in using ICT tools for classroom learning.
- To identify school teacher perception in implementing ICT tools for learning in classroom.

Rationale of the study

According to Legatum Prosperity index 2017 India ranked 92 among 142 countries. Education is one of the vital resource in the development of a nation. Developing countries like India is still facing the barriers of proving the quality education at different level. Although the government has started various programmes for improving quality of education, quality is education is still missing on grass root levels of education. If looking at school education, technology is still missing in the process of learning. National Policy on ICT in School Education 2012 talks about improving excellence of school tutoring and wonderful potential of ICT for improving quality of education. This study focuses on identifying barriers and perceptions of teachers in using

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ICT tools in the classroom for learning. The study gives clear view to the policy makers and curriculum designers for devising ways to overcome these barriers.

METHODOLOGY

Research Design

In this research, measureable procedure was used to collect and analyses the data obtained from all the respondents. A questionnaire was established and finalized previously being spread to the directed group of respondents. The questionnaire was designed specifically to address research objectives with respect to teachers' insight on use of ICT tools in schools and the barricades the face in integrating ICT into classroom learning.

Sample and sampling techniques

Sample include school teachers the sample was selected through random sampling from government schools. 10 schools were nominated through suitable sampling and school teachers were selected over purposive selection.

Tools

The study used the questionnaire for data collection form the sample. The questionnaire had open -ended questions with respect to barriers for integrating ICT tools into learning process.

Procedure for data collection

Data collection defines the process for collecting data by the Investigator. The questionnaire has been distributed to the teachers. They were given one week to fill in the questionnaire and return it to the researcher. All of the participants volunteered themselves in the research. Some questionnaires were with lost information that the details could not be used as a influence in this research. Finally, 100questionnaires were returned to the researchers for data analysis.

RESULTS

Perceptions related to the use of ICT tools in the classroom foe teaching and learning were found as follows:

- ✓ Students concentrate more on their learning
- ✓ Students work harder
- ✓ Classroom climate become more productive
- ✓ Classroom climate become less disturbing as students engage more in their work
- ✓ Students feel more autonomous in their learning
- ✓ ICT facilitates collaborative work among the students
- ✓ Students understood more easily what they learn Barriers in implementing ICT tools in teaching and learning were found as follows
- ✓ Insufficient number of computers
- ✓ Insufficient number of internet connected computers
- ✓ School computers out of order and needing repair
- ✓ Lack of adequate skills of teachers
- ✓ Insufficient technical support for teachers
- ✓ Insufficient pedagogical support for teachers
- ✓ Lack of adequate content and material for teachers
- ✓ Lack of content in national language
- ✓ School time organization
- ✓ School space organization
- ✓ Most parents not in favor of ICT
- ✓ Pressure to prepare students for exams and tests
- ✓ Too difficult to integrate ICT use into curriculum
- ✓ Unaware of benefit to use ICT in the classroom

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DISCUSSION &ANALYSIS

This study is related to identifying perceptions of schoolteachers in implementing ICT tools in the learning process in the classroom. furthermore, it also examines the barriers in using ICT tools for learning.Based on the study the findings indicate that teachers' perceptions were based on ICT's advantages on the learning process. Here also findings reveal that using ICT enables classroom environment more interactive as students participated more when teachers use ICT tools for the teaching. Students actively engage in the discussion. Teachers also said that integrating ICT provides students greater space for learning at their own pace. As students can adjust the slides according to their level of competence. ICT also provides enough space for the students who are differently. A student with hearing impairment can use audio based material for his or her learning.

CONCLUSION

Incorporating ICT tools into the laboratory will give operative products. As the findings suggest that students concentrate more on their learning, students are keener to work hard and ICT helps students understand more easily. Moreover, it gives scholars more autonomy used for their knowledge. But for this to be accomplished administrators should demonstrate the importance for technology integration by providing incentives to teachers (Bitner & Bitner, 2002). Further, school organisation has to make complex sets of changes for ICT to be meaningfully support student's learning (Light, 2009).

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RESEARCH PAPER ON ODD PRICING SYSTEM

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ABSTRACT
Rate of commodity making is an important pricing policy that has been used by retailers over the time. The tendency appears to be successful considering how consumers react on chief price products with odd price Endings. This examination is expected at provided that an accepting of the psychological influence of price ending on buyers, using the theory of perception. It analysis theory and offered writing on the topic and brings out augmentative pricing policy that retailer can adopt in regular markets. The exploratory study was depend on 16 diff errant home-drop advertising material, short magazines and advertising material by retails shops in the chiplun and khed area[1] . These advertising material, (like short magazines)which were collected and analyze over 4 month era to make out the control of odd and even pricing policy to have a complete coverage of the odd-even pricing occurrence, opinions of some buyers were required and its take by interview on their observation of odd-pricing and how the odd-pricing influence their buying decisions.. The study bring into being clear evidence of the biggest use and preference by shoppers for odd prices match up to even rate for diff errant product categories, especially fast moving goods. The paper study on as long as the marketing implication and suggestion on when odd and even price ending policy should be used and for what category of products this policy can be used.{1} Also, the implication of price endings on marketing communication are highlighted. Price ending, consumer behavior, perception, psychology, price like 49 99 19 etc

INTRODUCTION
Over the years to influence deal behavior of consumers. many business use psychological plans in pricing their product or service; sometimes innocently. Psychological pricing is the observe of arrangement and presenting rates of to appeal to customer' emotions and to influence their

Decision-making processes. Pricing is more than information of goods and services; it is a play on awareness. To a titanic extent, it is the customers' observation of price that make them purchaser of a product and not the actual money price. In countless cases, the psychology of pricing and price observation is more significant than the actual price of the product or service; Price is multi-faceted, therefore, making a product, the crucial question that needs to be answered is: "What price do I charge?" This question is not answered by only manufacturer but also wholesalers and most especially retailers. It is also important to believe the how, what, when, where and what form of pricing by asking the question: "How do I charge?" This is necessary because, customers act in response in a different way if the rate is broken down into parts, or the commodity or service is group with other commodity. When purchaser have much more information on how to make a decision on the perceived rate or quality of a commodities, price are increases the ranking scale as a determiner of rates of goods. Consumer process numbers in a different way, and they may never know what is in their thinking when they consider prices and how this affects their behavior. Traditional economic thoughts assume that markets are always efficient and participants always rational. However, consumers behave differently, sometimes even illogically when to be had with a variety of activate. When setting a new prices, it is significant to note that customer acting a big role in customers' purchasing decisions. If the right pricing policy is used for a product and for the marketplace, and such a strategy is supported with strong endorsement and placement or distribution programs, the firm can increase sales and knowledge business growth (Stivings, 1996). But a wrong pricing policy can be very costly. There are different price strategies that are used by firms. One of the most usually used pricing strategies which is widely applied for customer goods across different product categories in retail shops and newspaper advertisements is the price ending (odd-even) strategy.

Psychological rating (also worth ending, charm rating) may be a pricing and selling strategy supported the speculation that sure costs have a psychological impact. Retail costs are typically expressed as "odd prices": a bit but a spherical range, e.g. $19.99 or £2.98. There's proof that customers tend to understand "odd prices" as being under they really are, tending to spherical to subsequent lowest rate of measurement. Thus, costs like Rs1.99 are connected to outlay RS 1 as an alternative of RS2. The speculation that drives this can be that lower pricing like this .institutes bigger demand than if customers were absolutely rational. Psychological pricing is one reason behind worth point. In short the following point we study by this research paper

- Different type of pricing methods used by company.

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- One of the popular pricing Techniques is charging price like 49, 99, 199 etc.
- Customer's perceptions about last 10th digit of price and they induce to buy the product.
- Whether customers actually get back their one rupee

In short I explain statically effected of odd pricing system

As per unit sold

Particulars	Unit	₹
No. of unit sold	50	
Daily recipe buy ignoring one rupee	₹ 1	50
Monthly collection	50 *30	1500
Annual collection	1500*12	18000
Consider no of shops in a area	20 shop 18000* 20	360000
In a state	??????	

In about table I try to explain how much amount we are lost by ignoring one rupee

If we are calculated this calculation buy area base shops system them

No. of shop in area	5 shops	
Daily receipt	5*1	5/day
In town / city (consider 10 shops)	50*10	500./day
In district (consider 10 town)	500*10	5000/day

In state (consider thirty district) 5000×30 150000/ day In nation (20 State) 150000×20 300000/ day Then annually 300000×365 109,500,000 Above statically calculation make a case for that ignoring one rupee is extremely generated black cash that quantity is across ten,95,00,000 P.a. Historical knowledge Of Research: odd rating technique area unit paw time utilized by Biu-Mandara company for marketing formal black shoes at Rs 599, 499, etc secondary this policy utilized by electronic company Videocon to sale little transportable TV in 1990 amount. In current time this system followed by e-marketing system online searching etc

RESEARCH METHODOLOGY

The purpose of the methodology is to style the analysis procedure. This includes the style, the sampling procedure, the info assortment methodology and analysis procedure. Marketing research is the systematic gathering secret writing and analyzing of knowledge regarding downside holding to the selling of products and services. The essential purpose of promoting analysis is to produce info, which can facilitate the identification of a chance of downside scenario and to help manager in incoming at the simplest potential selections once such things' area unit encountered. Basically, there are a unit two kinds of researches, that in line with their pertinence, strength, weaknesses, and needs using before choosing correct variety of analysis, their suitableness should be seen with reference to a selected downside two general kinds of researches area unit exploration and conclusive.

2.2) Conclusive Research: It is additionally referred to as quantitative research; it's designed to assist executives of action that's to create call. When a selling govt. makes a call area unit course of action is being designated from among variety of obtainable. The alternatives are also as few as Two or nearly infinite. They will be outlined or solely mistily glimpsed. Conclusive analysis provides info that helps the executives create a rational call.. The research here is "Descriptive Research Design". This kind of design is used for additional precise investigation or of developing the working hypothesis from an operational point of view. It has integral flexibility, which is necessary because the research problem, broadly clear initially, is transformed into one with more precise meaning in exploratory studies, which in fact may necessitate changes in research procedure for gathering relevant data.

SAMPLE SIZE

Sample size refers to the statistics of respondents researcher have selected for the survey.

I have selected 385 sample units from market and individual customers. And 45 unit area shopkeeper.

SAMPLING TECHNIQUE

The sample design provides information on the intention information and final sample sizes. I used conveyed convenient sampling surveyed in research.

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SAMPLING AREA
While conducting sample, I went many places of khed and Chiplun areas-Railway road,

Bus depot, railway station, market Regan, college and all.

REASONS TO TAKING THIS TOPIC
- ❖ Psychological impact of saying one rupee as price seems to be lowest
- ❖ Easy to capture more market share by pricing rupee lower than competitors.
- ❖ Instead of 3 digits, 2 digits price attracts the customer's mind.
- ❖ Customer feel that odd numbers are right price than whole numbers

HYPOTHESIS
- ❑ H0 = Customer doesn't receive one rupee.
- ❑ H1 = Customer receives one rupee

RESEARCH PROBLEM
"To know whether customer really get balance one rupee from shop keeper."

OBJECTIVES
- ➢ To know customer's buying behavior towards odd pricing method.
- ➢ To understand shop keeper's attitude toward one rupee.
- ➢ To find the effects of one rupee.
- ➢ To know awareness among customers about demanding one rupee.

DATA COLLECTION TOOL
- ➢ I have use Questionnaire, as the research instrument to conduct the market survey. The questionnaire consisted closed ended questions designed in such a way that it should gather maximum information possible.
- ➢ The questionnaire was a combination of 15 questions. If choices are given it is easier for the respondent to respond from the choices rather they think and reply also it takes lesser time. Because the keep on responding and one has tick mark the right choice accordingly.

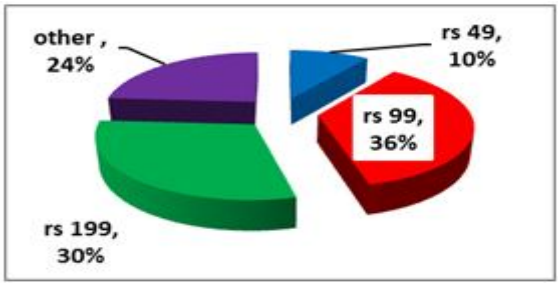
Data was collected through different sources
- ➢ **Primary Source:** Primary data was collected directly from the customers through a questionnaire. And also from retailer buy same way
- ➢ **Secondary Source:** The secondary source was the company website and my colleagues.

Method of sampling
- ➢ Convenient sampling is used to do sampling as all the customers in the sites are Surveyed..

3.1 DATA ANALYSIS
- ➢ Data analysis was done mainly from the data collected through the customers. The data
- ➢ Collected from secondary sources is also used to analyse on one particular parameter.
- ➢ Qualitative analysis was done on the data collected from the primary as well as secondary
- ➢ Sources.

DATA ANALYSIS AND INTERPRETATION:

1) Did you find this amount while buying some products? 49,99,199.



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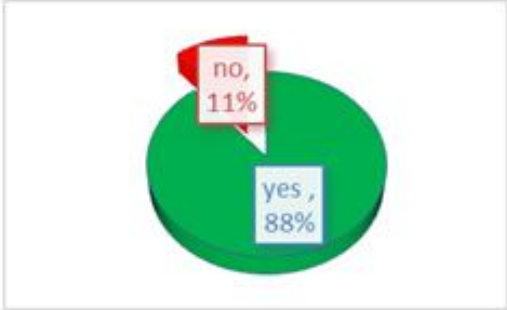
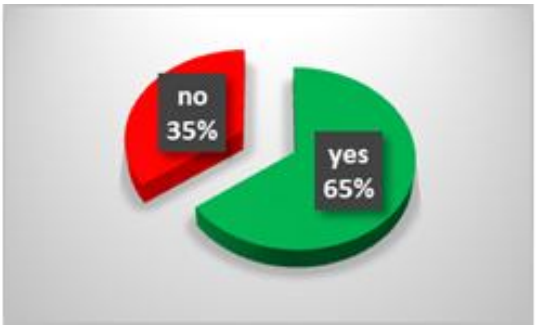
Interpretation: Most of the respondent faces this like of prices in market while they are affected by this pricing system.

2. Have you bought any product?



Interpretation: Buyers are buy mostly good due to odd pricing or small pricing which is they thinking that good are low cost or chip prices

3. Do you buy such products due to prices like 49, 99,199? (Consumer)

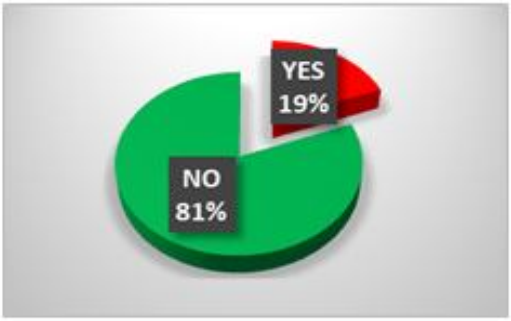


Interpretation: Chip pricing is most of the effecting marketing technique advertisement mostly effect on consumer, consumer buy goods on this prices

4. Do you find trouble in giving change due to prices like 49, 99, 199…. (Retailer)

Retailer say this pricing system is trouble for us for that purpose they want to carry balances one rupee.

5. a) Does shopkeeper return balance one rupee voluntarily to customer? (Consumer)



Interpretation: mostly shopkeeper never return carry one rupee voluntarily and most of time customer never demand balances one rupee as attitude work.

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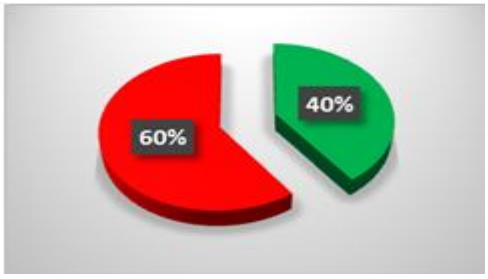
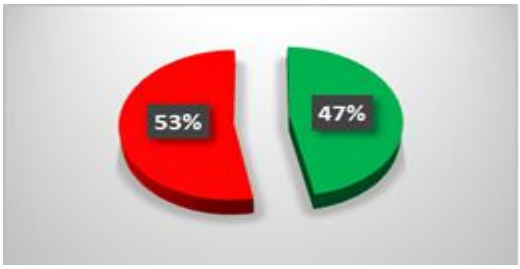
5. b) For this do you carry more change? (Retailer)



Interpretation: Retailer are hardly carry change some time they are facing trouble to payee balances one rupee.

6. a) Do you demand for balance one rupee? (Consumer)

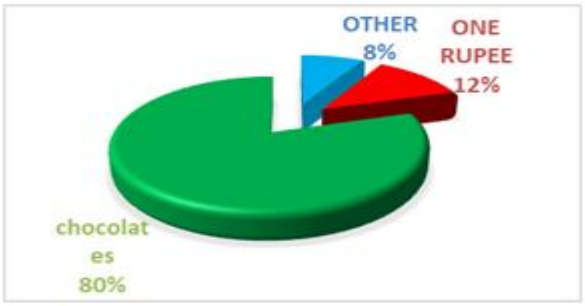


Interpretation: Consumer is likely demand balance one rupee they thinking one rupee never change my status

7. b) Do you return balance one rupee after demand by customers (Retailer)

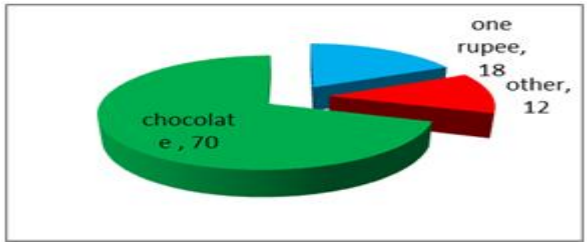
Interpretation: Most of the retailer never return balances one rupee because of shortage in carry change.

8. a) Does retailer returns in cash or he gives other commodity? (Consumer)



Interpretation: Mostly retailer in way of exchange or balances one rupee they give us chocolate or other commodity as change which also effecting your resaves and also effect on expenditures

8. b) If you don't have change then how you face customer? (Retailer)



Interpretation: Time of shortage of balance money retailer justify customer by give them chocolates or other commodities

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9. Does customer knows impact of not demanding balance many?

Interpretation: Respondent know about ignoring balances money but they never think it can make black money

9) Will you demand your one rupee from now?

Interpretation: After they know about measure effect of ignoring one rupee consumer ready to demand one rupee in future

FINDINGS

- ✓ As per my data we found that more than 81% know about this pricing system of form.
- ✓ Maximum respondents are purchase goods of this like prices because it shows low cost.
- ✓ Retailer's behalf of balance, they offer chocolates and other commodities instead of one rupee.
- ✓ Customers don't get back balance one rupee which is their own right.

LIMITATIONS

- ➢ The behavior of customers are unrecognized in which my result shows, lacking of accuracy in the data.
- ➢ As per the sample size of survey was so small and comprises of only 200 respondents.
- ➢ The results may have some prone to error.
- ➢ Study accuracy based upon the respondent's reply.

CONCLUSION SUGGESTIONS & FURTHER RESEARCH

- ☑ 81 % of customers do not get back balance one rupee voluntarily which is their own right.
- ☑ This one rupee is untaxed and unaccounted which generates black money, direct profit to shopkeepers.
- ☑ Though it is legal, still problem lies in execution of pricing method.
- ☑ Retailers are directly benefitted and need to change their attitudes.
- ☑ Customers should not hesitate to demand one rupee.
- ❖ We can make payment to shopkeeper digitally or by credit / debit card.
- ❖ There is a need of social awareness among customers.

In the future, research could be conducted on with larger advertising materials and retail store observations to strengthen the generalist ability of the findings to the entire khed and chiplun Republic. Also, it will be essential to study the implications of gender, age, socioeconomics attributes and other demographic variables on buyers' perception of odd-price endings. A deeper examination of brand reputation and price ending could be done. Such a study will reveal the implications of the interrelationship between branding and price endings on

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buyers. Findings from such a study will contribute immeasurably to the developing of branding strategies for consumer markets with reference to pricing. Empirical studies could be conducted to text the response of consumers to different pricing strategies. also, the perception of managers could be required on the reasons for using odd pricing strategy and its direct impact on daily sales and revenue of retail shops. It will be important to look at the trends and application of the pricing strategy on different product categories. It will also be significant to conduct advance studies into the factors and variables that determine the general impact of odd pricing on consumer demand. Since this study is based on only products, studies into the pricing strategy of service based firms could provide some interesting results.

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RESEARCH PAPER ON SEVEN P'S OF SERVICES PROMOTING AND VICTORY PROMOTING METHODS AT RELIANCE JIO, KHED

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ABSTRACT
In your business once you've developed your adverting plan, there is a "7's P Formulation" you should use to continually evaluate and reevaluate your commerce actions And this are as follow; Product: businessstart with, develop the custom of observing at your manmade goods as though you were an outdooradvertisingadvisorcarried in to help your corporation decide whether or not it's in the right business at this time. In this project we study planning regarding to production of RJIL goods. Prices the2nd P in the formula is price. Grow the habit of recurrentlyexploratory and reconsidering the prices of the products and services you advertise to make sure they're still proper to the realities of the existing marketplace. In this P we study regarding to pricing technique of RJIl. Promotion The third custom in advertising and sales is to reason in terms of encouragement all the time. Promotion comprises all the performances you tell your customers about your products or services and how you then marketplace and trade to them. Place, the 4th P in the marketing mix is the place where your product or service is reallytraded. Develop the custom of studying and reflecting upon the exact site where the consumer meets the sales assistant. Sometimes a change in place can top to a rapid rise in sales. Packaging is the 5th part in the marketing mix is the packaging. Develop the custom of upright reverse and look at every visual part in the packaging of your product or service through the eyes of a critical prospect. Placing the next P is putting. You should extend the routine of thoughtfulrepeatedly about how you are positioned in the hearts and minds of your clienteles. People, The last P of the marketing mix is people. Build up the custom of philosophy in terms of the people inside and outside of your trade who are responsible for every element of your sales, marketing strategies, and activities.[1]

Keywords: 7 P's, Marketing Mix, Product, Price, Place, Promotion

INTRODUCTION
RelianceJio information comm. restricted is associate degree LTE mobile network operator in Asian country. It is an altogether owned subsidiary of Reliance Industries headquartered in Mumbai, Maharashtra that was supported in 2010 by Mukesh Ambani that provides wireless 4G LTE facility network and is that the solely 'VoLTE-only' (Voice over long Evolution) operative in the country with coverage across all 22 medium circles in Asian country. It's the key medium operator to carry pan Asian country Unified License. This license give permission RJIL to produce all telecommunication services except world Mobile Individual Communication by Satellite Service. The services were 1st beta-launched to Jio's associates and staff on twenty 7th Dec 2015 on the event of 83rd birth day of remembrance currently Dhirubhai Ambani, founding father of Reliance Industries ltd , and later services were commercially launched on fifth Sep 2016 whose founder is Mukesh Ambani..[3]

7P's of Reliance Jio
1. PRODUCT
a) Jio Phone
On twenty one July 2017, Jio introduced its initial reasonable 4G feature phone, hopped-up by KaiOS, named as "JioPhone". the value proclaimed for it's RS0 with a down payment of RS1500 which might be withdrawn back by the customer by returning the Jio Phone at Jio stores solely once 3 years. This phone was discharged for beta customer son fifteen August 2017 and pre-booking for normal customer s started on twenty four August 2017.They targeted70% rural and half-hour urban customers.[4]

b) LYF Smartphone's
In Gregorian calendar month 2015, Jio entered into Associate in nursing agreement with domestic telephone set maker Intex to produce 4G handsets capable of phonation LTE (VoLTE). However, in October 2015, Jio proclaimed that it'd be launching its own mobile telephone set whole named LYF. On twenty five Gregorian calendar month 2016, the corporate launched its LYF Smartphone series beginning with Water one, followed by 3 a lot of telephone set models

c) 4G broadband-
Jio 4G Broadband is uniqueand the mastermind. The corporationsprung its 4G broadband services during nation want .It offers 4th-generation (4G) information and voice services, at the side of fringe services like

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instant electronic messaging and streaming movies and music with 2300 Hz spectrum for 4G everywhere India- twenty two circles, and 800Hz and 1800Hz spectrum for 4G in ten and six circles separately. The licenses area unit valid until 2035. With 250,000 kilometer of fiber network across the nation, it's the rapidest and also the broadest network with least knowledge drop. With Jionet Wi-Fi, it will be wont to transmit Wi-Fi in homes and offices at reasonable costs. [4]

a) Jio web Wi-Fi-

JioFi (Wi-Fi router) could be a transportable broadband device by Reliance Digital. It permits multiple customer s and mobile devices to access Jio's 4G high-speed web property and produce a private Wi-Fi hotspot. It helps customer s to get pleasure from 4G options on 2G/3G good phones as it's having 4G speed up to a hundred and fifty Mbps and transfer speed up to fifty Mbps. conjointly provides facility of constructing video and HD voice calls, audio and video conference, causing SMS with Jio 4G voice app. It was connected up to ten Wi-Fi enabled devices It's best at battery (2300mAh) supports up to 6 hr of surf time.[4]

b) Jio Sim-

Jio SIM provides free web and limitless voice calls in HD quality withVoLTE network with cheap rates. It conjointly provides free SMS, free Roaming and plenty of other applications below My Jio App. Jio is currently giving free home distribution of its Jio SIM in additional than 600+ towns.

a) FTH (Fibre to Home, city) (Testing phase is going on)

In Jio, Broadband Connectivity is finished through gas pipes and the targeted areas arechiplun, khed dapoli guhagar ratnagiri and other kokan reigan. The speed is 100mbps..[4]

b) DTH Direct to Home (ProjectLevel)

The additionaladvantage isthat the customer canoperateeveninStormandRain.Itis inProjectlevel.

- ✓ Jio Applications–
- JioTV – live TVservices
- JioCinema – just like Netflix, a video library.

a. JioChatMessenger – a messenger service forJio customer s.

b. JioMusic –JioJoin- Volte PhoneSimulator

c. JioMags- Magazine reader andsubscriptions

d. JioXpressNews – News and dailyevents

e. JioSecurity – Securityapp

2. JioDrive Cloud storageapp

❖ **MyJio-**

My Jio Appis the basic appfor the Jio customer. From Simsportability to balance checking – alland no matter whichis available with My Jio App. Customer need to download the app from Play or Apple store and sign up under My Jio account. Enter asuitablemobile number (reliance Jio) andstart usingthe app with no trouble. In My Jio App, buyercan check their balance, get help and care from the server, customer can check the voice call details, Wi-Fi details, store locators, usage details, hotspot locator and any kind of support and help for the locationissues.[4]

❖ **JioCinema-**

The app is obtainable onlyto Jio 4Goperator. Jio Cinema has awide recordof latest as well as old Bollywood, Hollywood, and locallanguage movies, newest episodesfor newest HindiTV shows and melodyvideos. The app's bordershows all these categoryseparately which makes searching for content easier. Clientelescan concentrationcinemas in full HD and won't be bugged by ads as in the case of most streamingapps.[4]

❖ **JioTV-**

The requestoffers immediateaccess to TV programmerswith a broadrange of TV channels across languages and genre. It offers live TV pause and play feature and presentlyhas right of entryto 300+ channels.

❖ **JioJoin-**

Jio applicationis a one stop solution for all calling and texting needs for customer s whowish to enjoy these services on Jio's 4G network without relying on a drawbackto 3G or 2G network of a partner operator. Calls made over the LTE network offer HD voice with better clarity than analogue cellular voice

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❖ **JioNet-**

Reliance JioNet has been formed to ensure portrait perfect access to Reliance Jio's 4G services even afterwards the purchaser has run out of balance on their phone. Using this application , a Reliance Jio user can right of entryany of the Reliance Jio's public Wi-Fi hotspots if their phone is within range by simply logging to the app with their Reliance Jio login details. In case there isn't a network around, customer can open the map inside the app and see all the hotspotsintheregionandheadtowardsit.[4]

❖ **JioMusic-**

This is another amusement app that ismeant exclusively for Jio subscribers. It is free to download and allows customer s to stream music in English, Hindi and several local Indian languages without being in undated by ads. The alternative to play music in 320kbps puts it at par with the like of Saavn and Apple Music. The songs have been tabulate according to the sort, name of artists and the era the song belongs to. The customers can connect smart watch or other devices with the app to take pleasure in music.

❖ **Jio Money Wallet-**

Customer s can make expenditure, purchase movie tickets, and opening to get more than Rs. 15 thousand/- worth of discount coupons by via Jio Money Wallet app. Customer can link their bank account with Jio Money Wallet, and pay for anything and receive personalized offers.

Jio Security-

This is a security App that helps in scanning the apps put in on customer's phone. It may also monitor customer's browsing and show a warning dialog just in case of malicious website. The app additionally has AN anti-theft service in-built which will facilitate the customer wipe, find and build the phone scream just in case it gets lost. Except that, the anti-theft feature additionally incorporates a protection in situ to check if the SIM card has been modified and if thus needs the person to enter a security pin code before he or she will be able to access the phone on one occasion more. The Jio Security app may also make easy the customer to dam numbers in addition as mark the protection of apps on Play Store whereas the customer is browsing for apps.[4]

2. PRICE-

At the kickoff, in a shot to market web usage among the country and to form the provision of web to folks from all walks of life, Reliance Jio undertook the initiative of providing SIMs freed from value to any individual against their Aadhar card variety and distinctive mobile variety identity. It had been calculable that Jio was winning in marketing up to fourteen large integer SIM cards to people among the primary few days of its launch. Following the stint of rolling out services freed from charge for the customer s, Jio has extended cheap evaluation plans whereby customer's ar charged fairly for the info consumption that they assume. Voice line of work but, continues to be free for its customer s UN agency primarily obtain the info usage. Reliance jio phone purchase @ rs 1500 deposit for 3 year . Reliance Jio LYF devices begin at costs as low as Rs.2999 and Jio Fi is price at ranges as low as Rs1999.

3. PLACE-

Reliance Jio incorporates a robust presence within the Indian landmass as a result of the extraordinarily well developed infrastructure that the firm offers. The network is accessible across all the twenty 2 medium sectors within the country that embrace regions all across Asian country. All states and main city are coated. It's a reach in regarding 18000 cities and across quite 2 large integer villages among the country.[4]

4. PROMOTION-

Reliance Jio has undertaken AN aggressive selling strategy to form positive completeawareness. It has launched ad campaigns on tv, radio, newspapers, magazines, and billboards and social media platforms as well as Instagram, Facebook, Twitter and YouTube. Jio has partnered with variety of organizations and agencies just like the BT cluster, Millicom, Orange S.A. etc. to market its merchandise. It's signed up for a partnership with Samsung and Apple for rolling out LTE Advanced professional and 5G within the country. Reliance Jio promotes itself with the Jio Digital Life campaign so as to draw in the youth of the country with the broader vision that the leadership of the country has in terms of digitizing the Indian Society. On Dec twenty four, 2015, Bollywood actor sovereign Rukh Khan and Amitabh Bachchan were appointed as Jio's complete ambassador. As a part of promotional activities Reliance, Jio offered free net Wi-Fi services at six cricket stadiums throughout ICC World Twenty20 and every and each one in all its services free until the top of the money year 2016.

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Pokémon Go-Location-based AR game Pokémon Go was launched in Republic of India in Dec, 2016 unitedly with Jio during which a whole bunch of Jio stores and alternative Reliance marts and searching malls like Reliance Trends and Reliance Digital became Sponsored Poke Stops and gymnasiums.

Reception of Jio Prime-By July, 125.5 million Jio consumers had opted for Jio Prime. The last date for registration to Jio Prime membership was thirty one March 2017. This was extended till fifteen Gregorian calendar month 2017 in conjunction with associate introduction of a replacement supply, "Jio Summer Surprise" that gave customers 3 months of free services. On half-dozen Gregorian calendar month 2017, TRAI suggested Jio to withdraw this supply.

2. PROCESS-

Jio provides variety of mobile applications that square measure out there at no cost transfer from the Google Play store that square measure although liberated to transfer however needs the presence of a Jio sim that the customer ought to own. a number of the foremost in style examples of Jio apps embrace Jio TV, Jio Cinema, Jio Chat courier, Jio Music, Jio Mags and so on. Jio-Fi has also been enter in select part of the nation which is Jio based Wi-Fi services useful at homes and offices.

2. PHYSICAL EVIDENCE-

There are thirty two Jio-Centers in Maharashtra which provides services to Jio Subscribers. Door to door service is also provide- Jio is now giving free home delivery of its Jio SIM in supplementary than 600+ towns and is also gifted to brings JioFi 4G hotspot to your house in as a smaller amounts 90 minutes. Jio Office in maharastra Circle is at town under center of Mumbai . 7000 Jio center are there in Maharashtra .

3. PEOPLE-

Jio believein providing its employees and customers acompleteecosystem which lets them leveragethe digital life to the fullest. A vast bulkof employees who work at Reliance Jiofrom a socio-economic environment that is extremelydynamic and diverse.Workersare treated with respect. [4]

MARKETING STRATEGY OF RELIANCE JIO.

- **Free voice calls androaming**

Jio provides 4G data, by taking nominal charges for datawhile voice and messaging are essentially free toany network. Also no roaming charges areapplicable.

- **The cheapest data inIndia**

Jio 4G data services are not planned to lure only the high- end customers but also focus on the short to mid-range segments. The mean idea is to make internet accessible and affordable to consumers in all parts of the nation. These section of the market are being under attack by offering all service sat evenhanded price. Current market perform to charge a base rate of Rs. 4,000 to Rs. 10,000 per GB of data. Of jio plan is lowest plan in our the business plan toward the customer

- **Coverage**

Jio's network is big as it covers eighteen thousand city and towns, and over two lakh villages.

- **Bundled entertainment services**

Reliance Jio is giving free right of entry to its special Jio apps. It provides application for entertainment of customer s.

- **Reliance Jio is 4Gonly**

The Reliance Jio network is entirely on 4G.With a 4G compatible phone with VoLTE carry, consumer can access to the network. Reliance Retail's line-up of Lyf cell- phones offera low cost option, starting from Rs. 2,999, though you can buy any cell-phonethat supportsVoLTE and use it.

- **100 PercentVoLTE**

Reliance Jio is also a 100 % VoLTE network – the majoring the world. VoLTE stand for say over LTE, by which you create tone of voice calls over the data network. VoLTE network create voice calling quicker with great clarity as compare to non-VoLTE networks that treat data and voice differently.

- **E-KYC for fast simactivation**

A customer with an Aadhaar card is clever to get the Jio sim with a working connection in 15minutes.[1]

- **JioFibre**

Anoptical Fibre is a wire that converts customer 's data signal into light and transfers them at the speed of light. Reliance JIO has the best ever fiber optic network in the country, ranging over two lack Kilometres and

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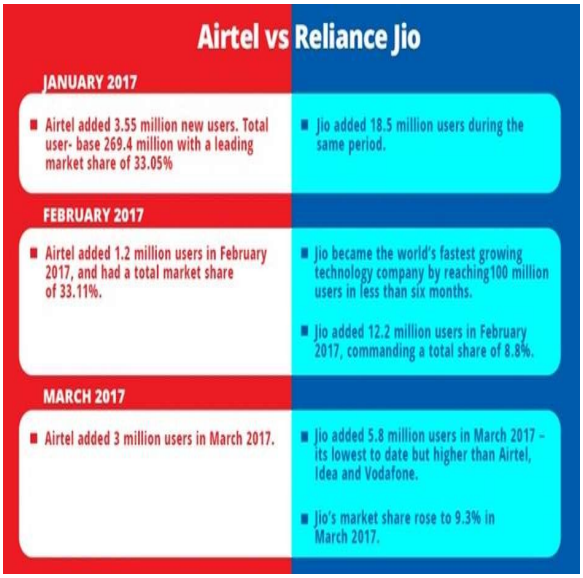
90,000 eco-friendly 4G Towers to provide un match able 4G action in all of India's twenty two tele-servise circles.

Relative Study of Reliance Jio with other telecom service provider:

	JIO 303	AIRTEL 349	VODAFONE 346	IDEA 348
Validity	**28 days**	**28 days**	**28 days**	**28 days**
Recharge TYPE	**JIO PRIME PLAN, FOR ALL USERS**	**SEGMENTED OFFER, FOR SELECTIVE USERS ONLY**		
Voice				
Local STD On-Net Calling Off-Net Calling	**Unlimited**	**Unlimited**	**Unlimited with FUP** 300 minutes/ day 1200 minutes / week	**Unlimited**
Data	**Unlimited**	**28GB**	**28GB**	**14GB**
Data @ 4G/3G speed	28GB	28GB	28GB	14GB
FUP	**1GB/day (post speed will reduce 128 Kbps)**	**0.5GB/day** **0.5GB/night(3am-5am)**	**1GB/day (post you will be charged@ Rs 4000/GB)**	**0.5GB/day (post you will be charged@ Rs 4000/GB)**
Additional Benefit	Plus 5GB on all recharges before 31st March 2017	--	Double data & validity one time on first time payment of 346/- before 15th March 2017	--
Additional Terms and condition	• Valid for ALL **Jio Prime members** • Offer valid for 12 months i.e. **till March 2018**	• Offer valid ONLY for some **selected users**, selected by operators (Segmented offer) • Offer can be availed ONLY if first recharge is done **before 15th March 2017** • ONLY valid on **4G handsets** • Offer **NOT valid for 3G users** • ONLY available in **selected circles** • **NO 12 month assurance** .operator reserves to right to withdraw the offer anytime without prior notice		

- As per last in print data by the Telecom Regulatory Authority of India, the subscriber base in October for Bharti Airtelstood at 285 million followed by Vodafone (208 million), Idea Cellular (191 million), and Jio (145.9million).[2]



CONCLUSION

Jio is playinga key role in the digital development of India – with applications for everything from education tohealthcare,security to financial services, technology to entertainment. Its advertising plan relies on target low-to-mid price ranges in terms of Jio Phones, LYF devices, JioFi as well asJio4G data services. Many Jio services are undergoing final tests, as the companyprepares for the anticipatedcommercial launch.

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ROLE AND APPLICATIONS OF ICT IN DEVELOPMENT OF RURAL AREAS

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ABSTRACT
India is a tremendously varied country with a number of differences and divides and rural-urban divide is on among many such divides. About 68% of the Indian populace lives in rural regions and is reliant on mostly on a harassed agricultural economy. The rural-urban share is as much a socio-economic and political divide as it is an environmental one. Rural areas signify a traditional, unskilled or semi-skilled, deficiency troubled and mostly agricultural dependent population. India being a developing nation can't rely on its urban manufacturing and facilities sector by yourself and rural areas must see development.

ICT can be an informal set of tools that can performance as a originator for the independent and maintainable development of rural India. ICT can be used in e-governance i.e. regulation, capacity building, and policymaking thus, leading to the contribution of rural people in democracy and judgment making. It can be used in disaster management and early warning systems at this period of time when the whole world is facing challenges from climate change. Environmentally sustainable farming solutions and information about the market price volatility can be made available to rural farmers in real time. Not only in the farming segment but ICT can be used also for social and administrative growth.

ICT can assist in the financial presence and hence in justifying food subventions. This presently is being indorsed under JAM (Jandhan Aadhar Mobile) trinity. ICT is expected to help in removing identity frauds, wastage, leakage and delays in the PDS system. BPL populace can be knowledgeable over SMSs about the entrance of food ounces. This will ensure accountability, transparency and grievance redressal.

ICT can also be used as an significant base for political improvements not only in urban but also in rural regions. It can bring rebellion by cashless transactions thus saving the time of people and reducing chance costs. It can become a tool for women authorization by endorsing their products worldwide through e-commerce. ICT is confidently a armament to battle rising challenges in urban regions and hereafter, making them for an unpredictable global change.

Keywords: ICT, Capacity Building, E-Governance, Cashless Transactions, Agrarian Economy, etc.

INTRODUCTION
Urban region is a geographic region that has limited homes or other constructions and is situated outside Town and Cities. More Than 68% of Indian Populace alive in urban regions and is dependent on cultivation. They get their living by making and preserving the crops. Their primary source of wealth is cultivating the land.

ICT (Information and Communication Technology) is a set of tools that are used in rural areas for the development of villagers and farmers. ICT include Computer Hardware, Computer Software, Radio, Television, Mobile Phones, Digital Camera, Wi-Fi, Projectors and other application Software's that are used for exchanging and sharing information with each other.

ICT delivers a stage in which all the growers/villagers can get their living effortlessly

Without degenerative of their time, harvests and other crops. Agriculturalists who do not have proper information of farming of harvests, pits, and spraying should suffer from many intimidations from poor Earths, Lacks and Vermin.

ICT provide a mechanism in which all the government Sponsored Schemes made for farmers

/Villagers should be implemented So that farmers can avail full benefits of such arrangements i: e PMMY(Pardhan Mantri Awas Yojna) , PMMY (Pardhan Mantri Mudra Yojna), KCC(Kissan Credit Card) ,SGSY,SC/ST/OBC and DRI (Differential Rate of Interest).With the help of ICT farmers can avail credit services from the bank/economic organizations with a very low rate of interest to improve their goods and humanizing the harvests.

ICT can assistance in commercial Presence and hence in justifying of food subventions. ICT deliver online Job card confirmation and establish seminars/camps to alert the agriculturalists/Villagers for the same. ICT used a

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procedure/application called JEO-TAGG which is used to evade the deceit in expenses of MGNREGA and SBM.

ICT can act as tool for women empowerment by promoting their products worldwide through E-Commerce. ICT deliver all the banking services i: e Mobile Banking, E-Banking, E-Billing and other mobile Applications such as PAYTM, Airtel Money, State Bank Buddy, JKBank Mpay for the agriculturalists, So that their time and cash saved and all the dealings /Renews should takes place at their homes without visiting to the Bank.

ICT deliver general info of weather conditions and environment change to agriculturalists during their period of harvests So that best instrument for vermin, Scarcities, Cloud Burst, and other natural disasters should be framed and implemented.

ROLE OF ICT IN RURAL DEVELOPMENT

As our country is a emerging country and more than 68% of populace exist in in urban regions so we must emphasis on it. Since this is the digital age and to implement the Digitalization we must use some skill. ICT (Information and Communication Technology) plays an significant part in overall growth of urban regions by improving the farming business and providing numerous facilities at the door steps and allowing the farmers to avail all the facilities, schemes and policies framed by the government. The ICT helps in organizing numerous exercise and consciousness sites by using Slide Projectors/picture performance to conscious the villagers/Agriculturalists alive in urban regions about the good timing for pits sowing, weather change, pests, minerals and fertilizers. ICT also deliver the next amenities to agriculturalists in urban areas:

- ICT provides the online services to check the food and gas subsidies.
- ICT deliver the online confirmation of works selected/completed under

MGNREGA arrangements via digital cameras and numerous mobile applications so that no fake payments are released.

- ICT provide the online transaction to farmers/Villagers over Business Journalists in the villages without visiting the Backing Organizations.
- ICT is used to deliver the E-Governance facility.
- ICT is used to deliver the E-Learning Facility to improve overall teaching learning process.
- ICT also deliver the radio facility in which numerous government Policies /services will be announced as the ignorant villagers, agriculturists and farmers are familiar of radio listening during working.
- ICT delivers the info to villagers in their local language so that maximum number of persons conscious of and avail the welfares.
- ICT acts as an important tool for women empowerment by promoting their products worldwide through E-Commerce.
- ICT also helps in removing the individuality robberies and deceptions, expenditure, leakage, and delays in public distribution system.
- With the use of ICT the land for building construction is properly checked i: e whether the land is earthquake prone or not.
- With the use of ICT, BPL public can be knowledgeable through SMS, s about the Influx of food ounces.
- With the use of ICT, E-PDS scheme is resulting to remove the individuality deceptions.

ROLE OF ICT IN FORESTS

ICT plays a vital role in protecting forests. With the use of ICT CCTV cameras connected in which there is a general control on deforestation, trafficking of Lumbers and Kindling's and Infringement of forest lands. ICT provides GPS System which help in tracking paths in dense forest areas.

ROLE OF ICT IN EDUCATION

The use of PCs and internet for ornamental the excellence of teaching by making learning more pertinent to life has been seen as perfect by instructive institutions. The persons alive in urban areas are now in the age of electric media. Handling of big amounts of information and interactive the same to the agriculturalists/villagers alive in urban areas is the biggest need at this time.

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ICT is not limited to PCs or internet. ICT range from the use of FM radio to the use of satellite for communication. With the use of ICT, the education will be more operative and learning will be more new. With the help of ICT, the scholars get the online education materials, lectures, records from all over of the world within no time. For this, ICT has been considered as an real tool for teaching, learning and making instructive procedure more expressive.

ROLE OF ICT IN HEALTH

ICT can play a vital role in improving health care for peoples living in rural areas and providing various medical facilities at their doorstep without visiting very high and costly Hospitals. With the use of ICT, Doctors/Physicians working in rural hospitals are able to diagnose the patients using his Medical Training and Internet Connection. By using ICT a neonatologist who transmits CT Scans, Ultrasound, ECG and other medical images by e-mail to various other Doctors around the world to help in diagnosing and treating premature newborns who helped him to save various lives.

By giving crisp and more composed methods for getting to, conveying and putting away data, ICT can help bridge the information divides that have emerged in the health sector in developing countries between health professionals and the communities they serve.

With the expansion of databases and other applications, ICT also offer the competence to develop health system efficiencies and avoid medical errors. ICT is used to deliver the E-health Facility. With the use of ICT, Patients are also inform through the SMS /e-mail that there medical test reports are ready.

ROLE OF ICT IN AGRICULTURE

ICT in agriculture offers an extensive collection of solutions to some agricultural challenges. It is an developing field concentrating on the improvement of agrarian and rural growth through better info and message procedures. E-Agriculture contains the overall outline, change, assessment and operation of creative methods to utilize ICT in rural space, with vital concentrate on agricultural.

The use of ICT as a tool of interference in farming is becoming progressively general.

Many mobile applications intended and industrialized in area language to break the literateness fence and bring the information in most simple manner. With the use of ICT, the chasing of cattle's is easier. Each cattle is tagged with the use of RFID (Radio Frequency Identification) knowledge for easier ID, provided that access to applicable data such as bearer's site, name of Breeder, source of livestock, sex and date of drive. This also delivers development in regulatory illness outbreaks in cattle. Adaptable agricultural is a part of E-Agriculture and dense remote devices have provoked the making of progression managements and application that are utilized inside the urban esteem Series in the shaped nations. In farming, mobile technology is more usually used to supply facilities for creators and dealers.

In farming the use of worldwide positioning system delivers welfares in geo-fencing, map making and measuring. With the use of GPS, farmers/villagers can crop simple yet highly precise digitized map without the help of mapmaker.

To stop an animal from itinerant into farmhouses and destroying valuable harvests was to tag the animals with a device that directs a text message when it marks a geo-fence.

With the use of SMS and GPS, the animals can wander freely and the establishments are warned whenever they are near the farmhouse. Geographic information systems (GIS) are lengthily used in agriculture particularly in precision agricultural. By using GPS on tractors, the whole procedure from flattening the field to establishing the seed to watering the harvest has been much more effective. GPS based applications are being applied for nurture spacing, field mapping, earth exploring, tractor way and earth examining. GIS is used in decision making such as what to vegetable and where to herbal using past data and sample.

ROLE OF ICT IN WEATHER CHANGE

With the use of ICT, climate estimating offices use mass media to notify persons on weather updates. It also alert the persons about the weather dangers, numerous checking devices such as climate satellites, climate radars and wind profilers are used to monitor the climate and weather system that may affect the rural areas. Earth simulators are used to model climate change and weather conditions. In various rural areas, where flood is major concern of farmers, some mobile services are used for flood management.

These mobile services are used for weather information. ICT helps agriculturalists by notifying them about the use of flood water for harvest manufacture through simple text messages. The text messages also caution the

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agriculturalists about the flood events which would help them make their arenas and direct on how to alleviate flood injury. ICT also helps for tragedy management, release processes and providing early notices.

FUTURE SCOPE OF ICT

Holiday business is the sector that has option of being helped from ICT.ICT can be an significant medium for emerging travel market and educating local livings. ICT will play an significant role in bringing both gender equality to minimize the rising gender gap.

ICT will also deliver women new occasions that include maintainable living and financial authorization. Social networking sites obtain lot of care and by using social media tools to connect with persons crossways the world and the businesspersons/women's indorse their business worldwide by saving time and money.

ICT can play a role to allow communication and interface using mobile telephony, to development cooperation with wider networks of investors towards actions, through social networking tools. ICT should also devise a device or strategy to conscious the peoples about the new knowledges for their upliftment and healthier upcoming as many peoples in urban regions still unaware of the latest knowledges.

By adopting the internet of things and Big data Analytics in agriculture i:e RFID, Remote

Sensing, GPS, and GIS, the information needed for refining land and water use can be composed. Agriculturalists can accomplish extra welfares by joining enhanced operation of composts and other soil amendments, determining the economic the threshold for treating bother and wildflower plagues, and defensive usual resources for upcoming use. Agriculturalists and farming facility providers can envisage even further developments as GPS continues to update.

CONCLUSION

ICT is a set of tools that can act as a springboard for the democratic and sustainable development of rural India. ICT can be used for social, economic and potential development with particular emphasis on helping poor and meaningful people and communities. ICT can be used in egovernance, e- commerce, e-learning, eagriculture, e-pds, capacity building, policy making and decision making. ICT advancement incorporate many sorts of

Substance and managements, spreading from broadcast communications, for example, voice information and media administrations to particular applications, for example, managing an account, training or wellbeing to the usage of electronic government.

The objective of ICT is to utilize strong minimal effort advancements that can be accessible for poor and low pay groups the world over. ICT similarly uses progressive mobile phones about the rank of harvests and water system outline remotely. ICT can similarly use for making drives.

ICT helps in refining literateness rates by using mobile phones and SMS and by giving disabled people a influential tool in their fight to gain employment. ICT deliver numerous opportunities in education and employment through training to unskilled women's /farmers. ICT tools are developing as an area of cumulative interest. ICT helps in financial presence and hence in justifying of food subsidies. Rural peoples are most important properties of India and the Indian economy is the agricultural one, so effective use of ICT can bring rural communities closer to global economic system to further improve social and economic benefits. ICT is surely a weapon to fight growing challenges in rural areas and hence preparing them for an unpredictable global change.

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ROLE OF BUSINESS INTELLIGENCE IN DIGITAL MARKETING

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ABSTRACT
This document replicates upon Digital marketing, the requirement for using Business Intelligence in Digital Marketing, the framework for Business Intelligence performs and Business Intelligence from Web Analytics. It talks about the principle of Digital marketing and the various roles of a Digital marketing executive. It then reasons about incorporating Business Intelligence tools and practises in regular digital marketing performs which is important to improve productivity and maximise gains for any marketing campaign. It then proposes a framework to model Business Intelligence from the point of Data gathering and provides a brief understanding of the decision-taking procedure. Finally, web analytics and its appropriate usage in investigative data sets is also spoken about in this article. The main emphasis of this research is to highlight how valuable and essential Business Intelligence is to Digital marketing.

Keywords: Digital Marketing, Business Intelligence, Need for Business Intelligence, Business Intelligence Framework, BI from Web Analytics.

I. INTRODUCTION

Digital Marketing provides to a varied set of consumer wants through various marketing channels such as search engines, blogs, email, social network, and product websites to create an actual advertising and communication bionetwork. It can be a separate entity or be a part of traditional marketing efforts. Since the interaction of the client to the product from the initiation phase takes place on a digital domain, data harnessing of such communications is automated but can be difficult to handle at the equal period. Online marketing is parasol word for the advertising of goods or facilities using digital technologies, mostly on the Internet, but also counting mobile phones, show publicity, and any additional digital medium [1].

Data compelled resolutions are esteemed more in any administration, thus it becomes important to pass every corporate exertion over a logical channel to measure and expect results fairly. Business Intelligence delivers an improved situation to perform such operative calculation. This research is meant at appreciative how Business Intelligence gears can be used in merger with Digital marketing movements and expands the study by signifying a structure for such an connotation.

II. DIGITAL MARKETING

Digital Marketing caters to a diverse set of customer needs through numerous marketing channels such as search engines, email, blogs, social network, and product websites to create an effective advertising and communication ecosystem. Consequently, there is a good amount of data generation, analysis and recycling being done in order to establish a lucid marketing structure. Most productions opt for preliminary with Search Engine Optimisation (SEO) to boost the biological circulation expected on their blogs and websites. A data determined SEO policy might include planning out the possible traits of a general customer and then directing on directing the purchaser later by enhancing the on-page Meta pictures somewhat than plainly directing on tedious content.

Social media has managed to create a biosphere of its own with customers accessing these platforms daily. The focus of digital marketers mainly lies in finding a suitable methodology to interact with these consumers on Facebook, Twitter, YouTube, LinkedIn and Instagram. Social media, apart from playing a very important role of being a platform of live consumer presence, is also a new home for advertisers of the digital domain. Pay-per-Click which used to have a base only on search engine pages, has now found home in Facebook news feed and other micro blogging websites as well. Social media has allowed brands to have a direct consumer interaction via influencers who interact with them in return of affiliate marketing links creating mutually benefiting associations. Digital Marketing apart from focussing on drawing attention thrives greatly on being able to measure the Key Performance Indicators (KPIs) as a marketing campaign progresses from initiation and up towards the sales cycle.

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Figure-1: KPI indicators

III. NEED FOR BUSINESS INTELLIGENCE

Having to process abundant information manually can invariably result in partial understanding of subject matter and can lead to actions that incur losses. To avoid this and to maintain an organized workflow, data handling structures better known as Business Intelligence can be employed in routine Digital marketing efforts as a best practice. Business Intelligence refers to technologies and practices that aid in data accumulation, synthesis and its study to present fruitful business information to maximise gains and to avoid losses. The agenda of Business intelligence is to mechanize the process of decision making and reduce the chances of error in judgement. BI tools when handled by experts can procure exemplary solutions in the digital marketing sphere. The main tasks of marketing analytics are to explore customer sales: the effectiveness of a marketing campaign includes the complicated tasks of forecasting, segmenting and jointly analyzing the accounting data alongside data coming from web, mobile, and geographical systems (GIS)[2].Studying customer behaviour is complex and requires to be done regularly. Often, digital marketers are expected to be one step ahead in predicting what the customer desires. A thorough analysis of consumer reactions can be processed using relevant BI tools to scan a great number of consumer feedback left on websites and on social media. Moreover, an organisation's primary aim is to always satiate the customers, but at the same time, it is also essential to acknowledge how its competitors are building their next move. A single product can be developed under varying nomenclature by several companies, here, Business intelligence enables the developers to study competition and then initiate a final decision. BI does not restrict the marketer to only think of the product at hand but encourage the decisions to be well integrated with the likes of the entire company. Data from digital marketers translate further to various levels of the company and BI makes it more comprehensive by breaking the matter into charts, graphs which can be understood by both technical teams and nontechnical managerial strata in the workforce.

It's common for a digital marketer to be flooded with indefinite amounts of data absorbed from various sources, thereby, it becomes essential to give attention to the absolute superior documents. For this purpose, the BI interface is expected to highlight problems in dire need of a solution so that data sets can be examined swiftly, and accurate monetisation of data can be deciphered. An all integrated Dashboard lends such a support to the marketing executive. A CRM system is a good example of a platform which provides information pertaining to every lead in the sales funnel, every action initiated by the lead and its journey towards a successful sales conversion. It also categorises leads based on demographic, region, gender etc. As important as it is to focus on the key performance indicators (KPI) at this point, a digital marketing executive also has the responsibility to analyse the return on investment (ROI) from the campaigns he or she has generated which solely decides the continuation or shelving of a marketing idea. BI tools are agile in examining the time a potential customer is spending in the marketing environment, what advertisements they gravitate towards, the Click through rates (CTR) and consequently the Cost per Click (CPC).

Fundamentally all challenges faced in the digital marketing environment can be resolved using BI tools as it possesses the capability to be in tune with the dynamic changes experienced by digital media and can provide real-time solutions to reach a final, more promising output.

IV. BI FRAMEWORK FOR ONLINE MARKETERS

Main objectives of employing Business Intelligence tools in Digital marketing are:

1) To conduct research and identify right data.

2) To keep a check on Return on investment (ROI) from campaigns to justify their existence

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While collecting data is no longer a problem, building an effective framework to process it is the real challenge. However, a few pointers can be outlined that lay the idea of this amalgamation in succession:

1) **Handling data collected –** The accumulated data can be broadly classified as Unstructured and structured. A digital marketer receives data from numerous sources which are available in raw form to be processed. Most of this data is organised and can be analysed by spreading or participating social media and analytics engines using BI tools and performing numerous analytical operations and visualizations with slice and cube, drill down, drill through, sifting and other analytical operations. The content generated and written by users on various social media platforms is not structured, and to access and analyse this data, a business must apply semantic analytics to derive quantifiable data from these unstructured data and make confident decisions[3].
2) **Source and Segregation–** Once the data is assembled, it is essential to retreat to its source and analyse what is it trying to convey. For instance, every feedback form generated on a social platform isn't valuable information. Consequently, not all data needs to be processed. Segregation is essential to identify necessary tools that will break it down in further iterations of analysis.
3) **Identifying metrics of judgement-** Each type of data needs to be analysed across a set of parameters that evaluate its authenticity to reflect upon the subject matter at hand. Statistical data acquired from page visits, clicks, likes, shares, feedback, comments are some specifications which are analysed to evaluate data from social media networks.
4) **Creating a dashboard-** In order to analyse trends in the parameters developed previously, firms use Dashboards that can reciprocate and provide numerous customization options to the executive. With the help of a dashboard an executive can align all the metrics in a proper fashion and draw conclusions from them.
5) **Establishing correlation**- One thing to identify here is the need of a variable in that specific frame of time. Sometimes an otherwise primary element may not have any implications on the result that we want to arrive at. If correlation is not handled with absolute caution, one might end up with irrelevant modelling done between several ambiguous variable.

V. BUSINESS INTELLIGENCE FROM WEB ANALYTICS

From the perspective of developing an efficient marketing strategy, the Internet provides better insights into sometimes hidden and unavailable data regarding customers, their impacts on business, consumer behaviour and buying decisions[4]. Analysing data procured from the web becomes imperative when a marketing campaign is executed over web-based platforms, namely blogs, websites and social media sites. First step in this process is to infuse the tracking tool with the website source code after which the outcomes generated can be exported to a suitable file format. Obtaining Business intelligence from of a statistical analysis software can buttress the harnessing of useful business information at this point. Sometimes this s plainly used to generate comprehensive displays for otherwise dense subsets that may not be vividly understood by all strata in management. The extent to which one decides to use such tools is entirely in the hands of the analytics expert working for the digital team. Progressing from seemingly linear to much complex correlations of subsets is what makes using intelligence tools productive. Good content is directly proportional to the success of a website. Business intelligence procured from analysis of consequent web sessions from the consumer end matters greatly in the construction of a website. It provides a skeleton to the web engineers to improvise on the theme and code of the web platform. A website becomes a profit generation environment when it becomes monetised with advertisers pitching in to display their content. Not all ads can be of direct relevance on a landing page and this can be judged with drawing patterns in visits and time duration of a session. Every form of communication happening between a client and the website is logged and preserved in the analytics software. Google analytics is a platform that is increasingly being used to monitor web-based content. It's a linear application to run and can be used for examining blogs as well as websites.it provides comprehensive data correlations and helps to alter queries.

VI. CONCLUSION

Digital marketing in addition to being a part of most marketing efforts is also a method that can be used in various connotations. Many marketers are progressing towards real time execution of market penetration and thereby a need for the use of Business Intelligence stems in. Business Intelligence with its range of optimization tools and correlation capabilities is certainly what every marketer should incorporate in his or her efforts. Using BI can be a bit challenging for marketers not technically versed with analytical science but due to the presence of a huge array of tools, this aspect can easily be dealt with. Business Intelligence is proven to provide a performance boost and sets a promising path for reaping greater profits.

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ROLE OF ICT IN HIGHER EDUCATION

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ABSTRACT
Education is a very informally concerned with activity and quality education has traditionally been related with strong teachers having high degrees of individual contact with learners. ICT has become an integral part of today's teaching learning process. Effective use of technology can inspire students, make our classes more active and stimulating and renew teacher interest as they learn new skills and techniques. The role of ICT in higher education is becoming more and more significant and this importance will continue to raise and develop in 21st century. The use of ICT in education not only progresses classroom teaching education process, but also delivers the facility of e-learning. The acceptance and use of ICTs in education have a positive impact teaching, learning and research. The use of ICT will not only enhance learning environment but also prepare next generation for future lives and careers .This paper highlight the various impacts of ICT on higher education and explores various potential future developments.

Keywords: Information and Communication Technology, ICT initiatives, Higher Education

INTRODUCTION
According to Dr. Babasaheb Ambedkar (Bombay ,Legislative council Debate,27 July,1927), " The university is an equipment whereby education amenities are provided to all those who are intellectually capable of using those facilities to be the best advantages but who cannot avail themselves of those facilities for want of funds or for other handicaps in life". The people in university education shape the behavior; minds and the social and human values of the student community. Effective use of technology can motivate students, make our classes more energetic and motivating and renew teacher eagerness as they learn new skills and techniques. Technology is also serving the students to understand any intellectual notions clearly. ICT has become an integral part of today's teaching-learning process. The integration of ICTs in teaching in general and teacher education in specific is the need of the day. The use of ICTs can make considerable changes both for teaching and preparation mainly in two ways; firstly, the rich representation of information changes learner's perception and understanding of the context. Secondly; the vast distribution and easy process access to information can change relationships between teachers and teachers. ICT can also provide powerful support for educational innovation. In the last few decades, we have seen an increasing number of youngsters gaining access to higher education. This marvel reproduces a trend at a global level ,which is largely due to the democratization and development of societies, the improvement of living conditions and structures ,the demand for a more highly qualified performance both in professions and citizenships we have, therefore witnessed a change both in terms of quality as well as quality in the student population ,reflected in the gradual loss of the elitist and official atmosphere of higher education through the admission of individuals from all communal classes(Soares and Almeida,2002). "The emancipatory and transformative abilities of the ICT in higher education in India has helped the evolution of a country's obligation of higher education through part-time and distance learning schemes. It can be used as a tool to overawe the matters of cost, less number of teachers and poor quality of education as well as overcome time and distance barriers."(MC Gorry, 2002)

REVIEW OF RELATED LITERATURE
Ozdmemir and Abrevaya (2007) asserted that ICT is reducing the cost per students and expanding the enrolments and makes the provisions for employers and supports enduring learners. Lalitbhushan S Waghmare, et-al (2014) studied "Role of Information and communication technology in Higher education: apprentices viewpoint in country medical schools". They decided that there is a need to predict the role of technology in education and take suitable events to equip the stakeholders for passable and best application of the same. Uttam kr Pegu studied "Information and communication technology in higher education in India: challenges and opportunities" (2014). The study revealed that ICT enabled education will ultimately lead to the democratization of education and it has the potential for transforming higher education in India. Mahisa, Anju studied "The role of ICT in higher education in India" (2014) .The study exposed that ICT play energetic role as a strong agent for change among many educational practices.

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Major ICT initiatives in Higher Education Various initiatives in the recent past portrayed the significant role that ICT plays in the realm of higher education development. Numerous projects have reduced the costs, and it also has enlarged transparency. India has taken up main ingenuities in terms of content distribution and furthering education through Information and Communication technology. For example Gyan Darshan was launched in 2000 in broadcast educational programs for school kids, university students and adults. Similarly Gyan Vani was another such important step with broadscast programs contributed by institution such as IGNOU and IITs .Under the UGC country wise classroom intiative, education programs are broadcast on Gyan Darshan and Doordarshan national channel every day. E-Gyankosh which aims at preserving digital learning resources is a knowledge repository launched by IGNOU in 2005.Almost 95% of IGNOU's printed material has been digitized by uploaded on the repository. The national programme for technology enhanced learning (NPTEL) propelled in 2001 is another combined initiative of IITS and IISC which education over technology. Sristi, the society for research and initiatives for sustainable technologies and institutions is facilitating the use of ICT for strengthening the capacity of grass roots inventors, innovations and entrepreneurs busy in preserving bio variety and developing ecofriendly solutions to local problems.

BENEFITS OF ICT IN HIGHER EDUCATION

Use of ICT in education presents a unique occasion to solve assembly of challenges rapidly as well as at low rate. Here is an overview of advantages of an ICT:-

1.1 Inspiring Factor:-

The internet can act as a motivating tool for many students. Young people are very captivated with technology. Educators must capitalize on this interest excitement and enthusiasm about the Internet for the purpose enhancing learning. For already enthusiastic learners, the internet provides them with additional learning activities not readily available in the classroom.

1.2 Fast communication:-

The internet promotes fast communication across geographical barriers. Students can join cooperative projects that include students from different states, countries or continents.

1.3 co-operative learning:-

The internet facilitates co-operative learning, encourages dialogue and creates a more engaging classroom. For example, a LISTER V for our class will allow students to get involved in class discussions through e-mails in a way not possible within four walls of classroom.

1.4 Locating Research resources:-

Apart from announcement, research is what takes many people to the internet. There are many properties on the internet than the school library can provide.

1.5 Obtaining varied writing skills:-

If students are mandatory to publish their work on the internet, they have to develop hypertext skills. These services help students gain knowledge in non sequential writings.

RECOMMENDATIONS

The quality of programs as measured by fitness for purpose should continue to grow, if the stakeholders perceive the various educational programs as meeting their needs and expectations. ICTs serve to deliver the means for events to realize the possible in human resources. Furthermore, satisfactory funds must be providing to initiate, grow, indorse, review and implement ICT policies in the educational sector to bring about an development on ICT application, through computer apprentices courses taught in vigerian tertiary institutions. In this period of economic recession, the price of ICT equipment and materials will continue to the astronomical. It develops highly authoritative for all shareholders of education to entice industrial formations, politicians, big businessman and entrepreneurs, non-governmental organizations and the community at large to assist the institutions in the provision of ICT equipment and materials and well finished computer laboratories.

CONCLUSION

ICT play vital role as a strong agent for change among many educational practices i,e conducting online exam, pay online fees, accessing online books and journals. Thus ICT in Higher education improves teaching learning process, provides the facility of online learning to thousands to thousands of learners who cannot avail the benefits of higher education due to several checks, such a time, cost, geographical location etc. Once again ICT serve to provide the means for much of this activity to realize the potential it holds.

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STUDY OF SCOPE IN SOFT COMPUTING

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ABSTRACT
Soft Computing in general refers to the art of reasoning, thinking and conclusion that identifies and uses the real world marvels of federation, associations and organization of various quantities under study. As such, it is an extension lead of natural heuristics and skilled of dealing with complex systems because it does not require firm mathematical definitions and divisions for the system works. It differs from hard computing in such a way unlike hard computing, it is lenient of fuzziness, uncertainty and partial truth. In consequence, the role model for soft computing is the human awareness. The guiding principle of soft computing is exploit the lenience for inaccuracy, uncertainty and incomplete truth to achieve docility, strength and low solution cost. The main methods in soft computing are evolutionary computing, artificial neural networks and fuzzy logic. Respectively techniques can be used distinctly, but a powerful benefit of soft computing is the balancing nature of the techniques. Used collectively they can produce solutions to problems that are too composite or inherently noisy to handle with conventional mathematical methods. The presentations of soft computing have proved two main advantages. First, it made resolving nonlinear problems in which mathematical replicas are not available, possible. Second, it presented the human knowledge such as reasoning, appreciation, understanding, learning, and others into the fields of figuring. This caused in the likelihood of constructing intelligent systems such as independent self-tuning systems, and robotic designed systems. This current paper highlights various zones of soft computing techniques.

Keywords: Soft Computing, Reasoning, Skilled, Fuzziness, Neural Network, Intelligent System, Techniques.

I. INTRODUCTION
In this existing real world, we face many problems which we have no solution to solve logically or bugs which could be solved theoretically but actually difficult due to its requirement of enormous resources and massive time required for calculation. For such problems, approaches motivated by nature occasionally work very proficiently and efficiently. Though the results attained by these methods do not always seem equivalent to the mathematically firm solutions, a near optimum solution is sometimes enough in most practical purposes. These biologically inspired methods are called Soft Computing. Soft Computing is a canopy term for a crew of computing techniques. The term was first created by Professor Lotfi Zadeh who established the thought of fuzzy logic. Soft computing is grounded on natural as well as artificial ideas. It is stated as a computational intelligence. It varies from straight computing that is hard computing. It is lenience of fuzziness, vagueness, partial truth to achieve tractability, approximation, robustness, low solution cost and better relationship with reality. In fact the role model for soft computing is human thoughts. It refers to a collection of computational methods in computer science, artificial intelligence, machine learning applied in engineering areas such as Aircraft, rocket, cooling and heating devices, communication network, mobile operated robot, inverters and converters, electric power system, power electronics and motion controllers. Usually soft computing has been data driven hunt and optimization approache.

II. SOFT COMPUTING
Soft computing is a partnership is which each of the constituent contributes a distinct methodology for addressing problem in its domain. In this perspective, the principal constituent methodologies in soft computing are complementary rather than competitive. In fact, soft computing's main characteristic is its intrinsic capability to create hybrid systems that are based on the integration of constituent technologies. This integration provides complementary reasoning and searching methods that allow us to combine domain knowledge and empirical data to develop flexible computing tools and solve complex problems. Hybrid computing is the combination of hard computing and soft computing which having their inherent advantages and disadvantages. To get the advantages of both these techniques their individuals limitations are reduced for solving a problem more efficiently by Hybrid computing. Hybrid soft computing models have been applied to a large number of classification, prediction, and control problems

III. APPLICATION AREAS: SOFT COMPUTING
Soft computing field, vastly evolving area practices have become one of promising tools that can provide exercise and rational solution. Soft computing techniques are used in several arenas.

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AGRICULTURAL ENGINEERING
Agricultural engineering is the field of engineering on the way of working that over spreads engineering science and technology to agricultural trade and processing. Agricultural engineering also takes up in reflection the policy of animal biology field, field of plant biology, mechanical stream, civil stream, electrical and chemical engineering stream principles with information of agricultural values.

FEATURE SELECTION
In the field of machine learning and statistics, feature selection plays an important role which also stands as a variable selector, attribute selector or variable subset selector. It is the process of choosing a subset of prominent features for use in model designing. Feature collection techniques are a subclass of the more general field of feature abstraction. Feature abstraction opens up new features from functions of the original features, while feature selection returns a part of the features.

BIOMEDICAL APPLICATION
Biomedical application is a design thought to medicine and biology. This field look for to close the gap between engineering and medical field. It syndicates the design and problem solving skills of engineering with medical and biological sciences to improvement healthcare behavior, comprising diagnosis, monitoring, treatment and therapy.

FAULT-TOLERANCE
Fault-tolerance is the stuff that allows a system to endure working properly in the occasion of the failure of some of its components. If its functioning quality decreases at all, the reduction is proportional to the strictness of the failure, as related to a naïvely-designed system in which even a minor failure can cause total collapse. Fault-tolerance is mainly preferred in high-availability or life-critical systems.

INDUSTRIES MACHINERIES
Industries apparatuses are tools that comprises of one or more parts and uses vitality to attain particular goal. Technologies are usually motorized by mechanical, chemical, thermal or electrical means and are regularly motorized.

CRIME FORECAST
Crime forecast is a tool where we can carry out planning that aids to accomplish crime in ours. Computer engineers typically have drill in electronic engineering, design of software and embedded system instead of only embedded system engineering or electrical and electronic engineering. Engineers in computer stream are tangled in several embedded system features of computing from the design perspective of individual microprocessors, personal computers or desktops, and supercomputers to circuit design. This arena of engineering not only emphases on how computer systems work by themselves, but also how they assimilate into the larger picture.

COMPUTER ENGINEERING
Computer engineering is a stream that concatenates several fields of electrical engineering and upkeep of the physical and naturally built environment, plus works like roads, links, waterways, barriers and buildings. Civil engineering takes room on all levels as like in the public sector from municipal over to national governments and in the isolated sector from individual proprietors through to global companies.

IMAGING PROCESSING
In image processing, it is any form of signal processing for which image acts as an input, such as a photograph or video and the output of same may be moreover an image or a set of features or factors related to the image. Most image-processing practices involve giving the image a two-dimensional signal and spreading standard signal-processing techniques to it.

DATA MINING
Data mining becomes a substantial part of computer science which is the computational procedure of determining patterns in large data sets connecting methods at the joint of artificial intelligence, machine learning technique, stats and database form systems. The complete goal of the data mining method is to extract information from a data set and convert it into a logical structure for further use.

NANO TECHNOLOGY
Nanotechnology is one step to the matter on an atomic and molecular scale. Normally, nanotechnology the whole thing works with materials, devices and other arrangements with at least one dimension sized from 1 to 100 nanometers. Nanotechnology International Journal of Contemporary Research in Computer Science and Technology (IJCRCST) e-ISSN: 2395-5325 Volume 4, Issue 1 (January ’2018) IJCRCST © 2018 | All Rights

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Reserved www.ijcrcst.com 48 entails the submission of fields of science as varied as surface science, organic chemistry, molecular biology, semiconductor physics, micro fabrication, etc.

PATTERN RECOGNITION

Pattern recognition intends to provide a sensible answer for all possible ideas and to perform "most likely" corresponding of the inputs, taking into account their statistical difference. Pattern recognition is considered in many fields counting psychology branch, psychiatry field and ethology stream, cognitive science branch and traffic flow topic and computer science.

MEDICAL DIAGNOSIS

Medical diagnosis denotes both to the procedure of trying to regulate or recognize a possible disease and to the view reached by this process. From the opinion of data the diagnostic process involves classification tests.

IV. CONCLUSIONS

As the expansion of soft computing progresses in several areas counting physics, chemistry, biology, material science, and computer scientists necessarily be aware of their roles and support themselves for the greater progression of soft computing in mere future. This paper has drawn different extents of soft computing. The effective applications of soft computing and the quick growth suggest that the influence of soft computing will be felt progressively in coming years. It inspires the mixing of soft computing systems and tools into both every day and advanced applications. It is anticipated that this gentle analysis will benefit computer scientist who are intense to contribute their works to the field of soft computing

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THE REVIEW OF CLOUD COMPUTING SYSTEM

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ABSTRACT
This paper describes the cloud, its challenges, evolution, attacks along with the approaches required to handle data on cloud. A network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer. Clouds are generally deployed using Public, Private or Hybrid models depending upon the requirements of the user. This paper present by cloud reference model, cloud deployment model and distributed system, Service Oriented Architecture It is widely used in many organizations nowadays and becoming more popular because it changes the way of how the Information Technology (IT) of an organization is organized and managed.

Keyword: Cloud Reference Model, Cloud Deployment Model, Distributed System.

INTRODUCTION

Cloud computing is generally a concept that involves delivering services over internet. Cloud computing is a set of IT services that are provided to a customer over a network. Cloud computing is an Internet based computing, where shared resources, information and software, are provided to computers and devices. Cloud computing as distributed system has become buzz-phrase in IT field. Cloud is over sized pool of virtualized resources. Cloud computing is tend which is integrity to web 2.0.

Cloud: Cloud is just a metaphor for internet. Cloud is a pool of resources, which you keep on using according to your needs. Cloud refers to basic things we use i.e. "We have to pay for what we use". Cloud is similar to storage devices, instead of a physical device, this cloud consists of resources used for computing. The term cloud refers to network internet.

Computing: Computing is the collection of information technology that support different services that individual uses.

Cloud computing: The term cloud computing is everywhere. In simple terms cloud computing is steering and using data over internet rather than computer's hard drive. Cloud computing provides a platform where resources can be shared. Rather than steering data on personal physical systems cloud computing stores data on remote servers. Cloud computing is based on service providing models, where services are rapidly available. The goal of cloud computing is to bring information technology services in open market.

In cloud computing user's access applications, and other services via internet. Cloud computing is about online storage, infrastructure and application. Cloud computing has rapidly increasing from static clients to dynamic client.

Distributed Systems: Single can be defined as: A system that breakdown into multiple systems to perform a single task. For example- If a single institution has 2 departments then department A and department B will be having two wifi's. Since having a single Wi-Fi it slows down processes. But, as the institution is one and needs to maintain needs to be connected Wi-Fi of department A and Wi-Fi of department B will be connected via LAN to single server.

Cloud computing vs Distributed Systems

- The major difference is that cloud computing is about the infrastructure whereas distributed system is about distribution of tasks.
- Cloud computing helps to access hardware and software resources remotely through network.
- Distributed computing refers to multiple computers connected together to complete a single tasks
- Cloud computing supports services over internet. Distributed computing support communication and coordinate of computers through network to achieve a tasks.
- Distributed computing and Cloud computing are passing an important role in modern word and beneficial for business.

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SOA (Service Oriented Architecture) Computing: SOA is emerging paradigm, which is changing the way software's are designed and accessed. SOA refers to collection of various services that communicate together, via a communication protocol over network. SOA computing is paradigm of distributed computing for new generation. Which simply means SOA is built on basis of distributed computing layers adding new layers according to modern generation.

SOA and Cloud computing: SOA and cloud computing have reciprocal relationship i.e. one provides computing of service and other provider services of computing. Though it is believed the combination of both many provide various opportunities. In cloud organization gets services from external organization like yahoo in SOA services can be from external or internal i.e. system-system. In cloud computing can vary within stack but in SOA services provides are software components. Cloud computing is based on paying for outcome SOA is based on paying for technology.

Utility oriented computing: Utility oriented computing is based on concept of providing computer infrastructure and resources to the clients and charge as per resource utilization. Utility refers to components or resources used in computing.

Utility oriented computing and cloud computing: Compared to services of cloud computing utility oriented computing services are straight forward. As cloud computing is use of hardware is, software is that are connected together, whereas utility oriented computing provides services that uses paying as per using services. Utility computing and cloud computing are similar concepts, though cloud computing is a broader concept.

Parallel computing: A type of computing in which multiple processes are carried out simultaneously. Parallel computing has another term called parallel processing. In parallel computing large computer are performed easily, as more than are processers distribute the work load. Parallel computing has following hardware architecture-

1) SISD(Single Instruction single data systems)
2) SIMD(Single Instruction Multiple data systems)
3) MISD(Multiple Instruction Single data systems)
4) MIMD(Multiple Instruction Multiple data systems)

Web 2.0: Web 2.0 also known as social web that refers to website that describes the user generated content. Web 2.0 allows user to interact and collaborate with one other through the use of social media. Examples-included social networking sites such as Facebook, Blogs, Wikis, etc.

Cloud reference model: Cloud service models define how cloud services are made available to the consumer. If defines a flexible and agile collaborative enterprise cloud ecosystem. Cloud services model provides some fundamental service model such as IAAS, PAAS, and SAAS. The above model are interdependent on each other. It also provide an effective way for sharing the information securely though digital customer experience. The cloud reference model provides or ensures consistence and applicability of cloud services. Here, the model PAAS is dependent on IAAS because application platform requires physical infrastructure.

PAAS deals with whole computing platforms provided as services. IAAS aims to provide the whole computing power for application domain. This model is an extension of an enterprise architecture model.

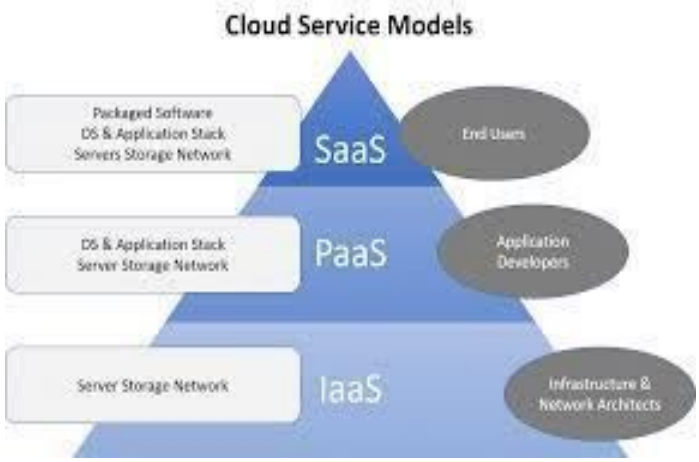

Fig-2: Cloud Service Model

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1) **IAAS (Infrastructure as a service):** IAAS is a form of cloud computing that provides virtualized computing resources over internet. It is one of the three main categories of cloud computing services. In IAAS model cloud provides host the infrastructure components that resides in an on-premises data center. It deals with network access routing services and storage. The IAAS provider provides hardware and administrative services to store application. These can include detailed billing, monitoring, log access, security and clustering. Amazon web services (AWS) and Google cloud platform (GCP) are example of independent IAAS provider.

2) **PAAS (Platform as a service):** PAAS is a category of cloud computing services that provides a platform that allow customer to develop, run and manage application. It is way to rent hardware, operating system, storage and network capacity over the internet. PAAS can be deliver in three ways: a) As a public cloud service when the user monitor the software deploying and provider provides network storage and middleware. B) As a private services, software or appliance behind a firewall.

   c) As a deployed software on a public cloud a service. PAAS allows homogeneous computing environment on which to install and execute particular software or application.

2) **SAAS (Software as a service):** It is a software licensing and delivery model in which software is licensed and centrally hosted. The audience or customer of SAAS are business and components. It is a web based software and must be accessed with web browser and internet.

Cloud Deployments Models: - Cloud computing is usually describe in one of two ways. Either based on deployment model or based on service that cloud offers. Based on deployment model clouds are classified as follows into four types-

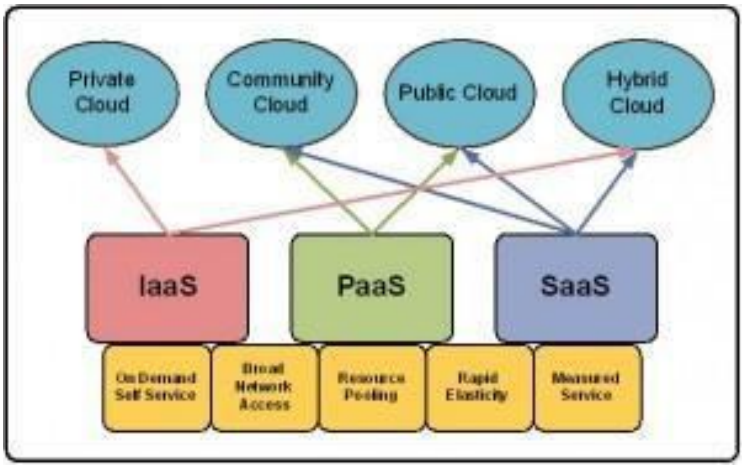

Fig-1: Cloud Deployments Models

1) Public Cloud: - As the name itself suggest the computing services which are available to the public. In public cloud, the resources and services required are provided by the third party organization. The whole computing infrastructure is located within the company premises or on premises. As public cloud use shard resources they do excel in performance, but also most vulnerable to different attacks. Due to on premise computing, the location remains separate from customer and has no physical monitor over infrastructure. Global dots offers worldwide public cloud service in data center.

Benefits

- Reduction of cost
- Highly scalable
- Improve cash flow
- University accessible
- Automatic upgrade and backup data and application

3) Private Cloud: - Private cloud are the one which are specially built for single business. For many organization and companies, private clouds are good initiative. Private cloud is on-demand pool of shared resources allocated within a public cloud environment. Private cloud provides more security than public cloud. Many medical offices, banking, institutions uses the private cloud for data control. There are two types of private cloud-

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A) On-premises private cloud- This is also known as "Internet cloud" which is located within or inside the organization data center. Private cloud allows us to manage or enable you to pool hardware storage, network resources for cost effective dynamic and on-demand requirements. Private cloud makes provisioning an automated service request rather than manual task.

B) Hosted virtual private cloud- This cloud model is hosted by third-party cloud services provider. Cloud service provider builds private cloud environment and it implements, secure and manage. This approach is suggested for business organization without the use of pure public cloud infrastructure.

4) Hybrid Cloud: - A hybrid cloud is the golden opportunity to get benefits from both public and private clouds. A hybrid cloud is an integrated cloud services of computing resources provided by public and private cloud for performing various functions. Hybrid cloud platform either use public cloud or offsite hosted virtual private clouds for process and application. This integrated cloud provide features such as scalability, cost-efficiencies, security, and flexibility. It combines sufficiency of a private cloud with the flexibility and versatility of public cloud.

5) Community Cloud: - Community cloud are integration of services of various cloud to meet the specific needs of industry or business sector. In this infrastructure is shared among several organization from a common community. It can managed internally or by a third-party and hosted externally or internally. This cloud combines distributed resources from grid computing and distributed control from digital ecosystems. A criterion for cloud computing in community without dependence on cloud vendors, such as google, Microsoft.

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A RECOMMENDER SYSTEM FOR LEARNING RESOURCES SUGGESTION BASED ON LEARNER CHARACTERISTICS

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ABSTRACT
Advances in Information Technology (IT) have explained data inadequacy, yet another issue has been achieved: data over-burden. One of the most suitable techniques to manage this issue is the utilization of recommender frameworks. A recommender framework can be utilized as an apparatus to help and in any event, for basic leadership. In spite of the fact that it can prescribe the fitting instructive assets in e-learning framework for the students, with the goal that they would have the option to pick the best instructive substance, however as indicated by the ongoing investigations, such a recommender framework has once in a while been utilized in e-learning. A recommender framework dependent on synergistic separating approach is acquainted in this examination with prescribe the reasonable assets to the students and in this way spare their valuable time and encourage the learning procedure. In this examination, two gatherings of students are chosen from the equivalent instructive level. The principal gathering will be given no suggestions at all and they themselves need to pick their instructive assets. Be that as it may, the subsequent gathering will be upheld by the proposed recommender framework so as to choose their proper assets. The acquired outcomes show that the students in the subsequent gathering, who had been bolstered by the recommender framework, outflank the principal gathering and have an unrivaled learning experience.

I. INTRODUCTION
The incredible volume, yet developing measure of data on the web makes it difficult for clients to get the correct data, information and items. This issue has propelled the specialist to figure out how to beat this issue known as 'data over-burden'. One of these arrangements is the utilization of recommender frameworks [1].

There are different definitions for recommender frameworks. Liang thinks about RS (recommender framework) as one of the subcategories of DSSs 1 [2]. He characterizes them as data frameworks that can break down the past conduct to give proposals for the present issues.

1 DECISION SUPPORT SYSTEMS
In another word, in recommender systems it is tried to predict the user‘s way of thinking (with the help of collected information from his/her behaviour or similar users‘ behaviour) to identify and suggest the most suitable and closest product to his/her taste. In fact, these systems simulate the same procedures in our daily lives and automatically implement them [3]. The people with tastes similar to ours are found and asked for their opinions about our selections. Suggestions that are recommended by the system can have two primary results: The first result is helping users for decision making (for example, which one of the options you have is good for you to pick). The second is increasing the awareness of the user about the items he/she is in search of (for example, the recommendations introduce new products to the user which he/she was not aware of before) [4].

1. Motivation: As per the past inquires about, recommender frameworks are once in a while utilized in e-learning. By the developing improvement of e-learning, the utilization of recommender frameworks is getting inescapable. Utilizing the recommender frameworks in e-learning has extraordinary potential. Offering discussions to the students, suggestions to teachers and scoring each movement of students are a few areas that recommender frameworks can be utilized in.

In the learning procedure, choosing the correct assets has direct effect on the learning. So one of the fundamental issues is offering the correct assets as indicated by the student attributes in the most brief time conceivable.

2. Contribution: As recently referenced, one of the fundamental issues of the students in e-learning frameworks is choosing the correct assets without sitting around and vitality. To take care of this issue and to spare time, a site is structured.

This site proposes suitable instructive assets to the clients by utilizing a synergistic separating suggestion strategy and in this manner spares time and decreases disarray of the clients. In this exploration, two gatherings of clients sign in to the framework inside explicit time interims.

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The principal gathering will step through the exam subsequent to choosing three assets and remarking about them and will log out of the framework at last. The outcomes from remarks of the main gathering will be utilized for the second gathering that will sign in to the framework seven days after the fact without approaching the framework assets. Be that as it may, the framework will propose the assets to the objective clients by discovering 3 comparable clients from the main gathering. The framework will offer tests to the two gatherings.

The consequences of this task will show whether the students concentrating with self-managed learning strategy (first gathering) can have a superior comprehension or the students getting proposals from the framework (second gathering).

II. BASIC THEORY

It is important to think about the ideas beneath so as to comprehend the recommender framework.

Target User (Main User): In recommender framework, the client for whom the present recommendation is being handled and arranged in the framework is known as the dynamic client or the objective client [5, 6].

Self-managed learning technique: Self-paced or individualized learning is characterized as the learning guided by the people so as to meet individual learning destinations. In self-managed learning, the substance, learning grouping, the pace of learning and conceivably even the media are controlled by the individual [7].

Recommender framework: The development of the web and the quick conveyance of data on the web will offer ascent to the data over-burden. For this situation, the client can't oversee, get and update the accessible data on the web [8]. One of the answers for this issue is the recommender framework. These frameworks are attempting to display client's preferred data or assist them with customizing their encounters of the net. Recommender frameworks are commonly isolated into three classes: content-based strategy, information based technique and synergistic sifting strategy. There can be a fourth technique under the name of “hybrid recommender system” [9].

Cooperative Filtering Method: A methodology in recommender frameworks is utilizing CF or shared separating. In this methodology, rather than utilizing the substance of things, the conclusions and rankings proposed by different clients will be utilized for suggestions. At the end of the day, recommendations will be delivered by computing the similitude among interests and choices of the objective client and different clients [10].

User-based method: Client based technique is one of the most celebrated strategies for prescribing. Thing based technique: In Item-based strategy as opposed to utilizing the relationship among's clients and assessments of comparative clients, thing connection will be determined in a comparable way [11].

At that point, things like what the client was keen on before will be suggested. A significant point about this strategy is that not normal for the substance based techniques, things like the previous things that the client was keen on will be given without utilizing the substance of things and just by utilizing clients' intelligent information [12, 13].

III. RELATED WORKS

Recommender frameworks are compelling frameworks in directing and driving the client through the incredible volume of accessible alternatives toward the most alluring choice with the end goal that the system is customized uniquely for a specific client. CF calculations are one of the significant procedures to make proposal, since they don't fit in the area of things. The clients' propensities are communicated by things rate and suggestions are determined dependent on memberships of comparable clients. The specialized issues of this strategy are: cold beginning issue and shortage issue [14].

At the point when the framework doesn't have any data about the client interests, it can't give any suggestions. The explanation is that possibly the quantity of individuals that rate a thing in a specific base is exceptionally little comparative with the absolute number of things. This implies there is no particular similitude among clients and the nature of suggestion is low [15]. The sites like digg.com, reddit.com and Balatarin.com have recommender frameworks that gather and procedure remarks of clients, at that point channel them and offer them to the possibly intrigued clients. This is called “collaborative filtering” [16].

Likewise numerous strategies have been created to make a flexible web (versatile web). These techniques attempt to change and arrange the website pages progressively as per clients' inclinations.

Utilizing the recommender systems‖ in web is another methodology which is the premise of this exploration. Recommender frameworks are known as an instrument that encourages residents in utilizing the web. By

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utilizing recommender frameworks, one can look for the ideas that are not reachable by typical looking through procedures in electronic training [17].

IV. SYSTEM DESIGN

Confronting a wide scope of choices makes clients look for proposals. Recommender frameworks with community oriented separating discover the entirety of the choices that are as per clients interests. In this segment the recommender framework engineering for electronic training will be clarified. As should be obvious in Fig 4.1, the design of the recommender framework comprises of three significant parts: students, community oriented separating unit and learning assets. This framework has two sub-frameworks.

1. Examination of the students from first and second gatherings: Each gathering has 30 members in this investigation. These 60 people, who are signing into the framework during seven days, are the typical students and don't have any unique attributes. The assets in the site are not specific and they can be utilized by general students. These ten assets are about the ―hardware ergonomic‖ and they are recommended by a specialist.

The students of the two gatherings sign into the framework independently. The students of the primary gathering got into the framework in the main seven day stretch of April. The principal bunch didn't get any proposals from the framework and utilized the ―self-paced learning‖ method. The second gathering simply contemplated the assets that were prescribed by the framework.

The technique for prescribing relies upon the measurable qualities and social investigation of the previous students. This implies the framework will help the students by finding comparable students and prescribe the assets to them. In the main seven day stretch of April 2011, 30 students of the primary gathering got into the framework. In the second seven day stretch of April 2011, 30 students of the subsequent gathering got into framework.

2. Investigation of the assets in the framework: In this framework, 10 assets are accessible to the students. These assets are noticeable just to the primary gathering. Students ought to pick the correct assets that are identified with the fundamental idea. The fundamental idea is about appropriate utilization of equipment, for example, mouse, screen, console, and so forth. A dynamic is expounded on it in the area of "assets", so students can understand it. In the wake of perusing the conceptual and learning the idea, students ought to pick the correct assets as per the name of the asset.

Substance and spelling of these assets are unique from one another. There are only 5 assets identified with the conceptual and only 3 of them are great. So as a matter of first importance, students should peruse the name of the asset. On the off chance that it is near the substance of the dynamic, they should choose and understand it. In the wake of choosing the asset, students should remark about them.

In the "remarks" area, students should remark about the assets. This area has two sections. The initial segment has 3 inquiries regarding spelling, connection to the conceptual and culmination. However, the subsequent part is discretionary. Students can remark about the asset from an official reference. These remarks can be added to the accessible assets in the wake of being explored by a specialist.

V. SYSTEM ARCHITECTURE

1. Subsystem 1 Architecture: In this exploration two gatherings of students are signing into the framework inside explicit time interims. The principal bunch has the main seven day stretch of April to sign into the framework and step through the exam. The main students need to choose three assets out of 10 assets and put their remarks about them. At that point they need to take part in the test and at last log out the framework. The consequences of their remarks are being utilized for the subsequent gathering. Engineering for the primary gathering is planned as beneath:

Information Entry: The principal students ought to enter their name and surname in the enrollment area. It will be known as the username for them. At that point they will enter their email address and a secret phrase. There are 5 inquiries in this part and the student should answer them. These inquiries are to assess students and to discover comparative students.

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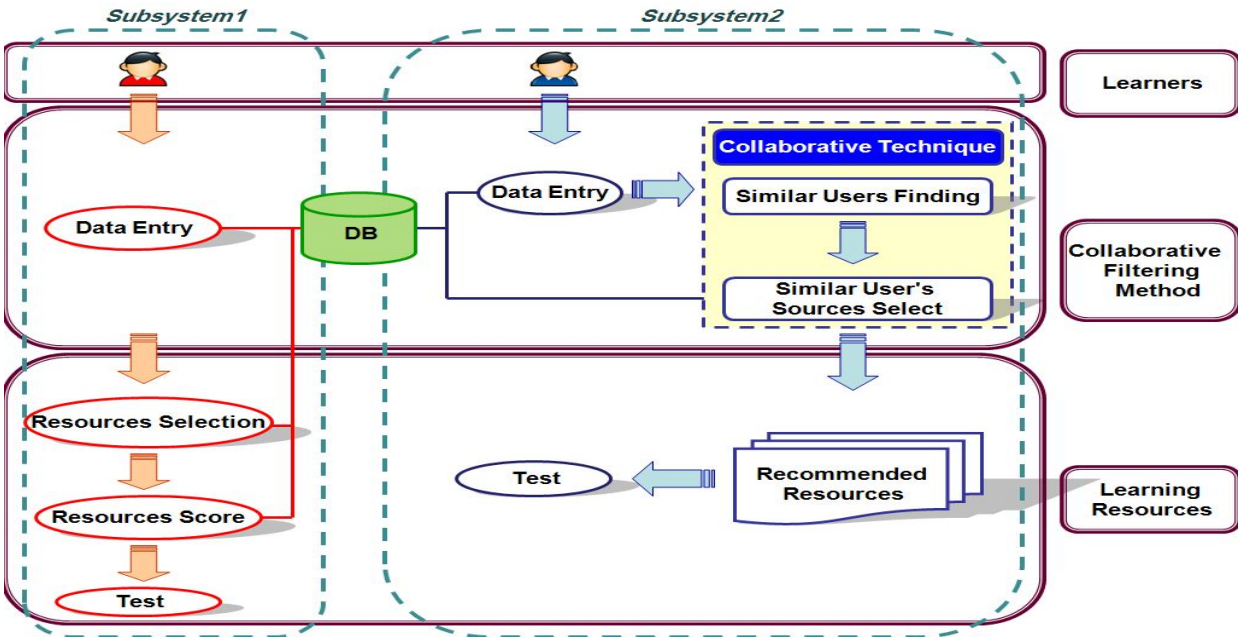

Figure-4.1: System Architectur

Resource Selection: The main students subsequent to perusing the method manual in the landing page will be guided to resources segment. They need to contemplate just 3 assets and put their remarks about them. It ought to be referenced that they approach every one of the assets in the assets segment.

Resource Score: After choosing the assets and going to "comments‖ segment, students should score the assets they have picked before."I remarks segment, there is a discretionary segment for remarks. Students can post their remarks.

Every one of the assets considered by the students with their scoring and their discretionary remarks are spared in their profiles which are recognizable.

Test: In the end the students of the primary gathering will go to the —test‖ area .The test is about the assets. After that they will log out of the framework.

The aftereffects of the primary gathering will be utilized for the subsequent gathering. The subsequent gathering can sign in multi week after the main gathering. They won't approach the assets. The framework will discover comparable students in the main gathering for them and will recommend their assets to the students of the subsequent gathering. Scored data and assets by the main gathering will be assessed by the framework. By having assets and data from the students in the primary gathering, the framework will recommend assets to the students of the second gathering after their enlistment.

2. Subsystem 1 Architecture: The second gathering that will enroll in the subsequent week won't approach the assets. The framework will recommend 3 assets to them as indicated by their comparative students in the main gathering. At that point the students of the subsequent gathering will take part in the test and will log out of the framework. The examination of the outcomes will show whether the student can have a superior comprehension while utilizing the web without anyone else's input (first gathering) or by accepting suggestion from comparable students (second gathering). Engineering for the subsequent gathering is structured as beneath: Information Entry: (same as gathering 1)

Community oriented Technique: The 5 inquiries that students of the principal bunch replied in the enrollment area are being utilized as criteria for discovering —similar users‖ for the objective client. The framework will figure 3 assets with most noteworthy scores by alluding to the assets contemplated by 3 comparable students and afterward will place them in focus on client's profile. In the following area it will be talked about totally.

Recommended Resources: After the learners of the first group log out of the system, it is the second group‘s time to log into the system. Learners of the second group will study the instruction manual in the —home‖ section after they log into the system. By going to their profiles they are suggested 3 resources by the system. Learners should read 3 recommended resources.

Test: The learners of the second group will be navigated to the test and after doing that they will log out of the system.

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VI. PROPOSED METHOD FOR LEARNER CLASSIFICATION

One of the fundamental issues of community oriented sifting is gathering the premiums of the students. The perfect condition to make the framework dependable is that countless students rate the assets. This will be accomplished uniquely by investing an excess of vitality and time. As the framework might be fit for giving proposals with great quality when it has fundamental data, the students from the principal bunch are not profoundly energetic toward the start. Be that as it may, 30 students were picked for the principal gathering to conquer this issue.

Client based technique is one of the most well known and initiatory strategies for the communitarian separating suggestion strategies. There are numerous techniques created by this model. The principle thought behind this technique is that when an individual requests a proposal for an item (for instance a book), he/she will be progressively deferential about the recommendations of the individuals who have a lot of comparable interests for books as him/her. Albeit algorithmic recommendations are progressively productive, by and large students would incline toward their companions' proposals to the algorithmic recommendations.

After the students of the principal bunch log out of framework, it is the subsequent gathering's an ideal opportunity to sign into the framework. The 5 inquiries that students of the main gathering replied in the enlistment area are being utilized as criteria for finding similar learners‖ for the objective client. Connection (1) is characterized for finding comparative clients from the principal gathering (learner(i)) to the objective client from the subsequent gathering. The framework will analyze each answer from student a client from the primary gathering) with the appropriate responses of the objective client.

$$\text{Learner(i)} \quad \text{Score} = 2Q_1 + 2Q_2 + 4Q_3 + 6Q_4 + 6Q_5$$

$$Qi = \{0, 1\} \qquad (1)$$

For example the target user chooses c for the first question in the registration section. The system will study the answer of the first question of the learner i. If he/she chooses c then the system will assign 1 to Q1 in (1). But if he/she chooses another option then the system will assign to Q1. For question 2 if the learner i chooses an answer similar to the target user‘s answer, then the system will assign 1 to Q2 and this procedure continues like that

The more learner ‖ answers similar to the target user the more scores he/she will have. It means that it will be more probable that learner i is similar to the target user.

Numbers written in the relation (3-1) are scores that are given to each question according to their importance. In the end 3 learners from the first group with the highest scores (highest similarity) will be calculated for the target user.

VII. RESULTS

1. System Pre-Evaluation: After the members of both groups finished their tests, now it‘s time to compare the results. The comparison of the results will show whether the learners with self-paced learning technique are having better understanding of their studies or the second group that were receiving recommendation.

If the first group yields better results, some changes should be made in the algorithm and formulation of the system. If the second group yields better results, the research goal is achieved and efficient resources are presented to the learners in the least possible time. Decreasing the time is the most important point that should be achieved according to the phenomenon of information overload. Learners will show less behavioural disturbance against the information overload when they are receiving recommendations from the system.

Recommending the educational resources to the learners is one of those points that are not taken into consideration until now. Therefore, a system was developed to study this problem and to present strategies to solve it. By using collaborative filtering recommendation, the system recommends efficient educational resources and prevents learners from wasting their time and getting confused in finding efficient resources.

2. Analysis of resource selection of the learners of first and second groups: In this section the main issue is that how many learners are successful in selecting the resources that are close to the mentioned issue of the abstract. It will be checked whether the resources suggested by the system to the second group are the suitable resources or not!

Three optional resources were added by three members of the first group and an expert accepted just two of them for the resources of the system. So the resources increased from 10 to 12. These two resources were commented by 6 learners. The resource that was rejected by the supervisor didn‘t have proper similarity to the abstract.

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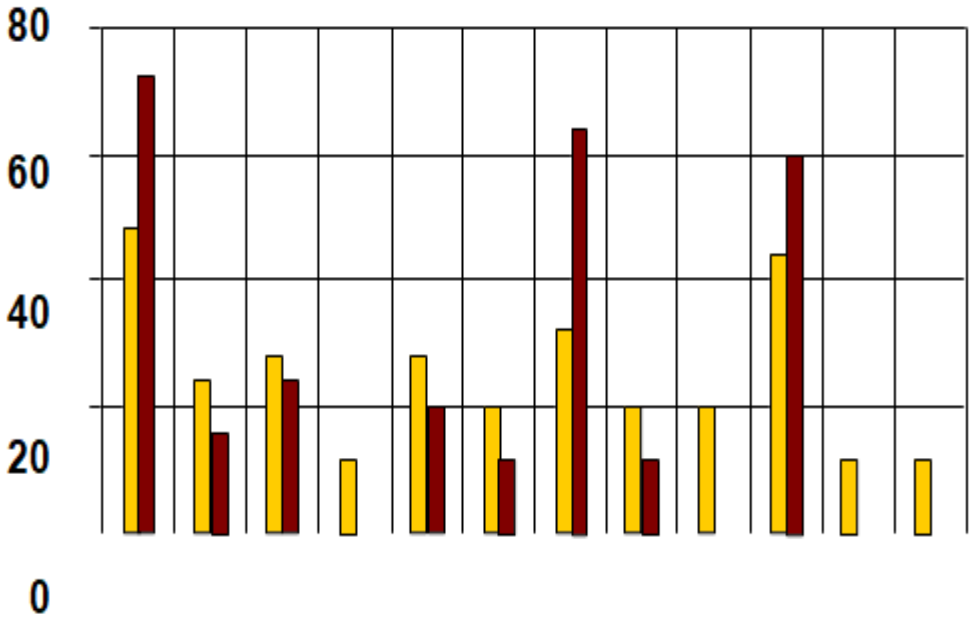
Resources number 1, 7 and 10 have the full scores (average 5). This shows that the learners who chose these 3 resources can answer all of the questions in the test section. Resource number 3 has score 4, resource number 6 has an average score of 3, resources number 2,5,11,12 have an average score of 2 and resources number 4,8,9 have score 1. Selecting resources number 3 and 6 helps the learners to answer more than half of the questions. Resources number

2,5,4,8 and 9 can barely help learners to answer the questions. Because these recourses have little information related to the abstract.

Now the main question is that if the resources with



	content1	2	3	4	5	6	7	8	9	10	11	12
% choose content for group 1	48	24	28	12	28	20	32	20	20	44	12	12
% receiive content for group 2	72	16	24	0	20	12	64	12	0.04	60	0.08	0.08

Diagram: 7.1 Percentage study of resource by group 1 and 2

After the individuals from the two gatherings completed their tests, presently it's a great opportunity to think about the outcomes. The correlation of the outcomes will show whether the students with ―self-paced learning‖ procedure are having better comprehension of their investigations or the second gathering that were accepting suggestion.

On the off chance that the principal bunch yields better outcomes, a few changes ought to be made in the calculation and detailing of the framework. In the event that the subsequent gathering yields better outcomes, the examination objective is accomplished and proficient assets are introduced to the students at all conceivable time. Diminishing the time is the most significant point that ought to be accomplished by the marvel of ―information overload‖. Students will show less social unsettling influence against the data over-burden when they are accepting proposals from the framework.

Prescribing the instructive assets to the students is one of those focuses that are not mulled over as of recently. Consequently, a framework was created to think about this issue and to show techniques to unravel it. By utilizing collective sifting suggestion, the framework prescribes productive instructive assets and keeps students from burning through their time and getting befuddled in finding effective assets.

3. Result Analysis: Fig 7.1 looks at the asset choosing level of the principal gathering (left side) with the asset getting level of the subsequent gathering (right side). As it is self-evident, the asset perusing level of the objective assets (1, 4, and 7) in the subsequent gathering is a lot higher. It very well may be inferred that if the assets or things are not chosen by the students, those things and assets won't be proposed to the new students.

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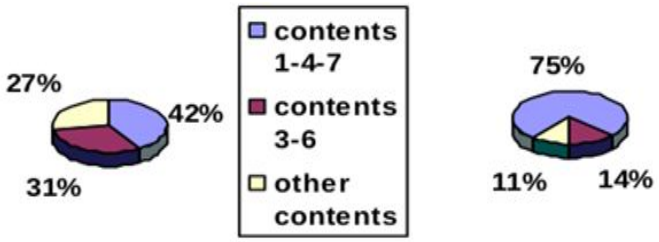

Figure 7.1.Comparison of selected content for group1 (left) and received content for group2 (right)

In the test segment 10 inquiries were introduced and the students of the two gatherings addressed them. In this part the inquiries of the test and the assets are talked about. The test aftereffects of the two gatherings are appeared in chart 7.2 which looks at the right answer rates of students of the two gatherings in the ―test‖ segment. The even hub shows the inquiries of the test.

The vertical pivot shows the right answer rates of the students of the first and the subsequent gatherings.

Clearly in all inquiries (aside from question number 1) there is a major contrast between students of the second and first gatherings. For responding to the main inquiry, the students didn't have to examine any assets and they had the option to address that question by their own insight. The students of the subsequent gathering would do well to results than the students of the primary gathering. The recorded outcomes in the framework show that 53.33% of the students of the primary gathering had the option to answer the greater part of the inquiries accurately while 77.77% of the students of the subsequent gathering addressed the greater part of the inquiries effectively. This outcome is helpful in light of the fact that the students will invest less vitality and time.

Recommending the educational resources to the learners is one of those points that are not taken into consideration until now. Therefore, a system was developed to study this problem and to present strategies to solve it. By using collaborative filtering recommendation, the system recommends efficient educational resources and prevents learners from wasting their time and getting confused in finding efficient resources.

VIII. DISCUSSIONS

2. Analysis of resource selection of the learners of first and second groups: In this section the main issue is that how many learners are successful in selecting the resources that are close to the mentioned issue of the abstract. It will be checked whether the resources suggested by the system to the second group are the suitable resources or not!

Three optional resources were added by three members of the first group and an expert accepted just two of them for the resources of the system. So the resources increased from 10 to 12. These two resources were commented by 6 learners. The resource that was rejected by the supervisor didn‘t have proper similarity to the abstract.

Resources number 1, 7 and 10 have the full scores (average 5). This shows that the learners who chose these 3 resources can answer all of the questions in the test section. Resource number 3 has score 4, resource number 6 has an average score of 3, resources number 2,5,11,12 have an average score of 2 and resources number 4,8,9 have score 1. Selecting resources number 3 and 6 helps the learners to answer more than half of the questions. Resources number

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The yellow columns show the resource selecting percentage from learners of the first group. The brown columns represent the resource receiving percentage of the learners of the second group. The learners of the first group studied different resources. The resources number 4, 11 and

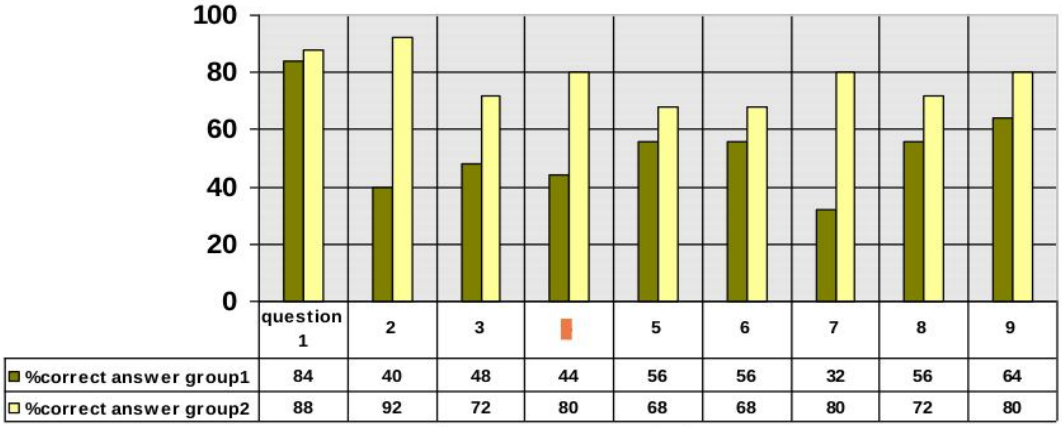
12 were selected by 3 learners from the first group. These 3 resources achieved the low average scores of 1, 2 and 2 respectively. Resource number 4 was automatically deleted and was presented by number 0 in the graph. This means that resource number 4 is not presented in the second step to any learners of the second group. Resources number 11 and

12 were only suggested to 2 learners of the second group. Resource number 9 that was selected and studied by 5 learners was suggested to only 1 learner because it had a low score.

As it is presented in diagram 7.1, resources number 7 and 10 are recommended to 75.33% of the learners in the second group, while 51.33% of the learners in the first group selected them. In fact, the learners of the second group experience an efficient resource selection. They were benefited from the experiences of the members of the first group. Here, without evaluating the test, it's obvious that the main goal is achieved.

3. Result Analysis: Fig 7.1 compares the resource selecting percentage of the first group (left side) with the resource receiving percentage of the second group (right side). As it is obvious, the resource reading percentage of the target resources (1, 4, and 7) in the second group is much higher. It can be concluded that if the resources or items are not selected by the learners, those items and resources are not going to be suggested to the new learners.

In the test section 10 questions were presented and the learners of both groups answered them. In this part the questions of the test and the resources are discussed. The test results of both groups are shown in diagram 7.2 which compares the correct answer percentages of learners of both groups in the ―test‖ section. The horizontal axis shows the questions of the test.



	question 1	2	3		5	6	7	8	9
%correct answer group1	84	40	48	44	56	56	32	56	64
%correct answer group2	88	92	72	80	68	68	80	72	80

Diagram 7.2 Percentage of correct answers to questions by the users group 1&2

The vertical axis shows the correct answer percentages of the learners of the first and the second groups.

It is obvious that in all questions (except question number 1) there is a big difference between learners of the second and first groups. For answering the first question, the learners didn‘t need to study any resources and they were able to answer that question by their own knowledge. The learners of the second group had better results than the learners of the first group. The recorded results in the system show that 53.33% of the learners of the first group were able to answer more than half of the questions correctly while 77.77% of the learners of the second group answered more than half of the questions correctly. This result is very useful because the learners are going to spend less energy and time.

VIII. DISCUSSIONS

The web has given an extraordinary volume of information as an open door for its clients. In any case, if there is no proficient administration for such a mass of information, this open door will transform into a hindrance to the clients. These days a recommender framework is fundamental to manage clients toward their ideal items and administrations in such a consistently expanding volume of data and information.

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As indicated by the ongoing investigations, such a recommender framework has once in a while been utilized in e-learning. The aftereffects of this undertaking indicated that the student can have a superior comprehension while accepting proposals from the framework.

So a framework was planned which had the option to prescribe instructive assets to the students and in this manner spared time and cost. The principle objective for leading this undertaking was that a student in an e-learning condition could get proposals and suggestions as indicated by his/her attributes at all conceivable time and choose the best alternative for utilizing the assets.

Restrictions of this Study: According to the CF calculation, the framework can't prescribe great quality proposals and suggestions on the off chance that it has not many students. In this manner, by expanding the quantity of students what's more, remarks the nature of the suggestions will increment. A few volunteers of the framework didn't show any enthusiasm for considering the assets. On the off chance that this framework is utilized in an instructive domain and the educator powers understudies to utilize the framework, at that point the restlessness of the students will transform into high inspiration and students can profit by the site to an ever increasing extent.

IX. CONCLUSION

The internet learners are always facing information overload and time waste. One way to overcome these problems is to use the recommender systems. In this study a recommender system was designed as a new and efficient strategy to open a new path in e-learning. It prevents the learners from wasting too much time in order to have better access to the content with higher speed and better quality. It is advised to create the culture of using the recommender systems before implementing these systems in the educational systems. It is quite beneficial to put these systems in the highly visited websites like banks‘ websites so everyone will get used to these kinds of systems. It is obvious that in this case we are not going to face the problem of cold start. So interaction between these systems and learners will be much higher.

If students get scored for each activity, they will show more interest. If new resources are added to the system, the interaction in the system will be increased. Therefore, the learners of the first group will be able to receive recommendations just like the learners from the second group.

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FUTURE OF AI IN EDUCATION

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Student[1] and Head[2], Department of Information Technology, Mulund College of Commerce, University of Mumbai, Mumbai

ABSTRACT
A normal machine can be an AI based machine when we give them the capability to learn and think. Artificial Intelligence (AI) is all about providing knowledge to the computer systems so that the system can learn new things and respond to it just like humans do. The use of AI technology is very high now-a-days. It changes a normal human life as everything is controlled by these machines and the scope of AI goes high in every area.

In this research paper, I got the opportunity to do some research on the topic Future of AI in Education. As we can see our scientists have made humanoid robots which interacts with humans efficiently. In this research paper, we will see what are the problems and the solutions and also the change in literacy rate because of AI technology in the field of Education.

Index Terms: AI, Changes in AI Knowledge, Literacy rate, Teaching.

NOMENCLATURE
- AI-Artificial Intelligence
- CAI-Computer Assisted Instruction
- ICAI- Intelligent Computer Assisted Instruction

1.0 INTRODUCTION
According to global literacy survey conducted by Max Rozer and Estiban the current rate of literate people over the globe has increased. They have given a detailed structure where they predicted that the literate people at the period of 1800 is 12.05% and the current update of literate people is 86.25%. Hence, the global literacy rate has increased. In olden days, letters were the only medium to talk to a person but now we have updated our self and technology that we can see the person from where we are.

When we think of the first Computer, it occupied the entire room and had less storage memory but now, we have smartphones, which occupy less space and has a large storage memory. Here we can get an idea of how fast the technology is developing. According to some research we found that technologies have helped in changing the world. Internet of Things, Personal Computers, Nano Robotics are one among them. An Artificial Intelligence (AI) was a myth or story where the machines will perform the tasks that a normal human being do. In order to change the myth to fact, scientists from all the fields came together and started making an artificial brain. AI games were introduced and many programs were made and the main goal of scientist was to allow these computers to communicate in natural languages. Finally, this ended up creating a complete humanoid robot. Now, Artificial Intelligence is predicted to change the world further.

2.0 REVIEW OF LITERATURE
Author name: Marlene Jones
Abstract: Computers have been active within the field of education for many years, often with unsatisfactory results. However, current research within the field of artificial intelligence (AI) is having a positive influence on educational applications. For example, there now exist ICAI (intelligent computer-assisted instruction) systems to explain or tutor many different subjects; several such systems are deliberated here. In addition to CAI (computer-assisted instruction) systems, we discuss the expansion of learning environments that are intended to allow student-initiated learning. A third major application is the use of expert systems to assist with educational analysis and assessment. During the development of the discussion of these three major application areas, we specify where AI has already played a major role in the development of such systems and where more research is mandatory in order to overcome present limits.

Conclusion- Although the systems discussed here still fall short of what we would like to see placed within the regular school environment, they determine the effect that recent Al research is having within the field of education. For example, current ICAI systems are an enormous development over the traditional frame-based CAI systems. Advances made within the central AI research areas, such as knowledge representation, natural language understanding, reasoning/ inferencing, and

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FUTURE OF AI IN EDUCATION

Learning/discovery, will surely last so as to simulate within the educational field, particularly in instructional and analytic systems.

Author name: Mr. Nitin Borge

Abstract: In educational system, managing artificial intelligence (AI), in teaching and learning process, had an amazing evolution. The educational goals can be better attained and accomplished by new technology of education. Using AI, we can have better study of each and every student in a class who is a slow learner or who is lazy enough to understand the topics which has been enlightened by lecturer. Analysis will give clear knowledge about student's understanding on each and every topic. If student is covering in some areas or the student is not able to recognize few topics then AI analysis would showcase this report to lecturer or teacher or parents so that proper action can be taken. AI analysis should also mention the topics with basic examples or in an easy manner to student so that they can recover their skill in the particular area where he/she is uncomfortable.

Conclusion- The capability for information systems to offer this level of understanding not only saves time, but can offer the level of detail that may not be noticeable or possible for teachers to identify at face value. Classroom AI tools have abilities in analysing several sources of data and linking them to known patterns. This can recognize the root causes for problems, and also drive towards more constant results across different classes, irrespective of the experience of teaching staff.

3.0 RESEARCH IN EDUCATION

3.1 Literacy Rate

Many online exams are given by students and the results are announced soon. This shows the replacement of teachers. Teachers assess all the papers and the results are announced within few months but now it is issued within fraction of second. As we can see that the students are more interested in the technology and their grasping power is high when taught using technology. Virtual learning environments are created for student which helps the student to learn according to their interest and the students can select the quality teacher so that they can understand the lessons with deep knowledge.

As mentioned before the literacy rate across the globe has increased. In this research paper, I have done the research on the use of current AI technology that are used for education. The technology used in education has increased the interest of the student in learning. In this research paper, I have determined the literacy rate of people which has changed using the AI technology in the field of education.

FUTURE OF AI IN EDUCATION

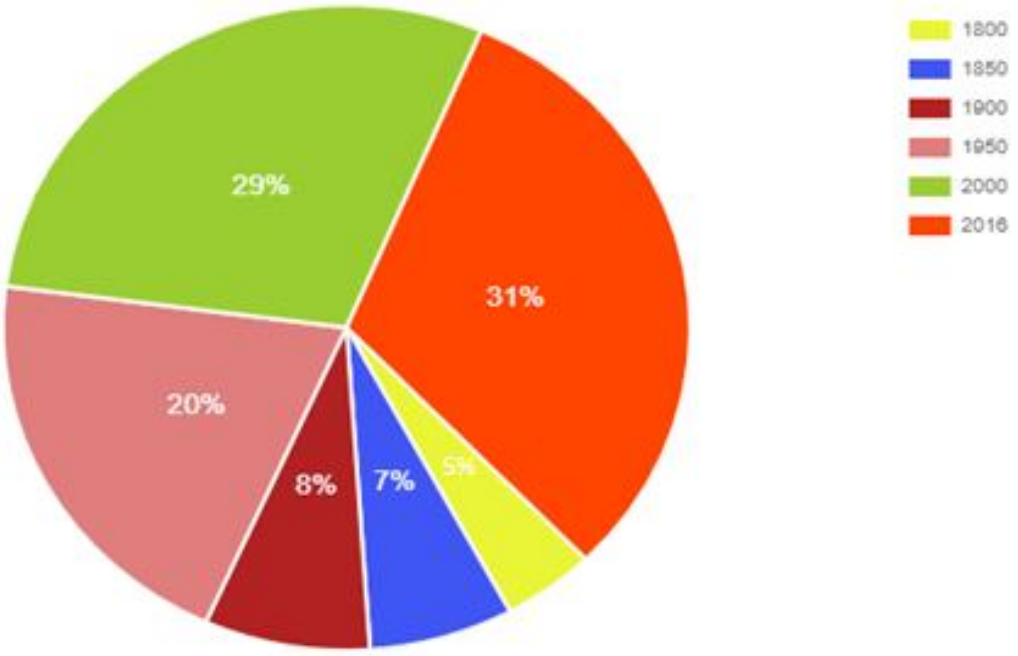

Fig-1: Literacy rate around the globe.

In the above diagram we have the literacy rate across the globe from the period of 1800 to 2016. This is the overall literacy rate, which started from 5% and has now increased up to 31%. AI is being accepted globally and

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the teachers believe that the printed notes will be vanished soon. Everything is available digitally and even now we can see that student prefer to have pdf than the hand written notes. As the researchers of AI in 1965 predicted that, "In twenty years the machines will be capable of doing what a normal human can do", similarly now the machines are replacing human being.

When we see the graph, the literacy rate has increased more from the period of 1950 and this is the period when AI was introduced. AI is the main reason for enhancement in education. The literacy rate gradually increases until now and the AI technology has brought a drastic change in the literacy rate. The Logics were introduced in AI research by McCarthy in 1958

The new approach for creating the thinking process of AI which is similar to human thought process was coined when they saw that the machines could manipulate numbers and also the symbols.

3.2 Human Robots:
When we compare the Humans and the Robots, we that the robots are smarter. Why is this so? Even the robots are made by humans.

This is because human now-a-days depend too much on Internet. Dependence on Internet and robots had made human lazier physically and mentally.

Initially to develop a project, more time is required to get detail knowledge about the topic and recall all the things that are learned earlier. Now-a-days we have online lectures which is recorded and the student can view as and when required. The time for searching and recalling has been reduced. But the student memory power also reduces because they depend too much on the online videos.

Even for a simple project the students refer the online readymade projects and this can reduce the thinking capacity of the students. It is advisable to have simple online exam after each session and also before continuing with the other session so that students can recall what they have learned. The student should give maximum right answers in order to continue with the next session. This can improve students thinking power and they can recall all the lessons they have learned. The exam should also include the question about having innovative idea for the problems and the ideas given by students should be encouraged. If we have syllabus-based questions the students won't be interested much but if it is based on their own opinion and their innovative ideas this can make them think about the problems more deeply.

4.0 CONCLUSION
The enhancement of AI technology in the field of education is supported by everyone but the enhancement should help in improvement of the student future scope. It is necessary to use the technology but we should not be too dependent on the technology too much. The solutions provided in this research paper will help the students to improve their thinking capacity and we will get some innovative ideas from students. Technology improvement is must but it should be used wisely.

APPENDIX
In the below mentioned reference, Literacy written by Max is all about the graphical representation of the literacy rate from the year 1800 to 2016. When we analyze the graph, we can clearly get to the point that the literacy rate has increased after AI evolution. The Literate world population became 56% in the period of 1950. The time when AI came into education the literacy rate has been increased.

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SMART PARKING SYSTEM USING IOT

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ABSTRACT
In today's world, majority of individuals travel vehicles, the cities have reached their full occupancy. thus most of the time folks pay their precious time in sorting out parking heaps. victimization automatic sensible parking system we are able to scale back the time and additionally human efforts. Our system relies on net of things (IOT). IOT may be a construct wont to connect all our close things to a network and communication with one another. it's generally classified into 3 classes sensing, process and property. Our system is cloud based mostly system that contains Optical device to sight empty parking slots and send this knowledge to server, this knowledge are often accessed by the users.

Keywords: Internet of Things (IoT), Optical Sensor.

INTRODUCTION
The machine-driven parking system exploitation IoT that you simply develop is enforced in lined parks, open parks and additionally street facet parking. The sensible parking system can have a cloud service supplier that gives cloud storage to store info concerning the parking standing within the slots. there'll be a centralized server that stores the data concerning the amount of parking slots, availableness standing and additionally the parking time.

LITERATURE SURVEY
Smart Parking System exploitation web of Things (IOT) to beat troubles of finding vacant parking spot in close parking. whereas developing this they've used Raspberry Pi as a hardware platform and that they maintained their, info on a central server. They perpetually captured snaps of car park to determine that slots ar empty and that one ar occupied. ANDROID based mostly good PARKING SYSTEM exploitation SLOT ALLOCATION & RESERVATIONS in urban center, India. Their system comprised of 3 sections viz., Driver request process center, good parking allocation center and Parking resource management center. They utilized in depth Slot allocation rule to assign and reserve user a slot from obtainable parking slots. They used IR detector to find actual occupancy of parking slot and that they half-track time that user occupied any slot. they need conjointly used golem platform to produce user ease to order a slot. A Survey on good Parking System". during this they've mention several papers and analysis that has been conducted on good Parking System. They mentioned that until then most systems used ZigBee, GSM, RFID technologies to transfer information from sensors to info. conjointly in some cases image process is employed to work out whether or not slot is empty or not. Smart Parking System with Bluetooth Access .The author proposes robotic garage (RG) exploitation Bluetooth which might be wont to absolutely alter the position of a automotive within the slot while not the help of the driving force. The system mechanically checks the distinctive number keep within the Bluetooth chip to ascertain if the new vehicle must be position. this technique may be a vertical parking arrangement for the vehicles with sensors that make sure placement of the automotive. numerous alternative sensors ar wont to make sure that there aren't any passengers left within the vehicles so the system moves the vehicle to hold using rack and pinion (Rap) mechanism. Automatic Parking Management System and Parking Fee assortment supported range Plate Recognition., Intelligent Transport System (ITS) and Electronic toll assortment (ETC) exploitation optical character recognition (OCR) creates a record for all coming into vehicle. This creates tag less entry for all vehicles within the parking zone, however it doesn't assign a slot to the user. A universal OCR algorithmic program isn't obtainable, creating it troublesome to form aforementioned records. Smart parking reservation system mistreatment short message services (SMS). In today's world parking tons became redundant and wishes heap of personnel to handle and maintain it. These parking tons don't seem to be user friendly and don't give information relating to accessibility of free areas. several researchers have contributed to the current issue and formalized with numerous strategies to higher optimize the parking zone to serve the requirements. The author projected good parking reservation system mistreatment short message services (SMS), for that he uses world System for Mobile.

PROPOSED SYSTEM
Presence of car at parking slot is set by Optical sensors, can provide output per lightweight incident on them. If vehicle is gift then thanks to Shadow of car output are LOW. Whenever Vehicle isn't gift thanks to incident

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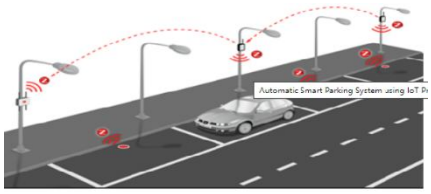
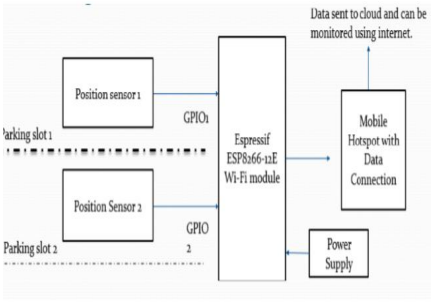
lightweight output of Sensors are HIGH. This Output is then given to Microcontroller GPIO pin. Specifications For Headers and Footers





The functionalities of the elements of machine-controlled parking system project square measure as follows,

Centralized server: This maintains the knowledge regarding the parking slots and its handiness

Raspberry Pi: can this may this can act because the microcontroller for the project and every one the opposite sensors will connected thereto

Camera: The Pi camera are going to be connected to the microcontroller and can be accustomed validate the parking slots as either empty or occupied

IR sensors: it'll be accustomed sense the presence of auto within the parking slots by causation out IR radiations

Navigation system: this can provide the signals that may guide the users to navigate and head to the closest obtainable parking slot

Display device: this can be the screen that displays the standing of the parking slots and alter period of time

User device: this will either be the movable or an internet site which may be utilized by the user to induce the supply of parking slots directly.

Major steps involved

1. The IR sensors or Pi cam ought to be placed within the acceptable places to obviously cowl all the parking slots
2. The parking slots ought to be befittingly numbered to mark them on the system
3. These marked points can act because the management points and can be integrated as slots within the cloud
4. Then the setting are going to be saved and therefore the microcontroller are going to be programmed to show the information on-line consequently

CONCLUSION

This designed automatic sensible parking system that is easy, economic and provides effective answer to scale back carbon footprints within the atmosphere. it's well managed to access and map the standing of parking slots from any remote location through browser. so it reduces the risk of finding the parking slots in any parking space and conjointly it eliminates gratuitous motion of vehicles across the stuffed parking slots during a town.

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APPLICATION OF BLOCKCHAIN IN ADVANCED STUDY CENTRE

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ABSTRACT
Blockchain is the technology that can be used to create and manage secure, distributed ledger that can record transactions done between any two parties or individuals very efficiently, in a secure, verifiable and permanent way. Blockchain came into limelight in 2008 when Cryptocurrency Bitcoin was invented by Satoshi Nakamoto (or group of people). In modern world we are applying Blockchain in many fields such as Smart contracts, Healthcare, Real Estate, Cryptocurrency, and Education, Supply chain, Businesses and many other fields. This is all because of blockchain's decentralization, immutable, secure and openness data storage structure.

In this research paper I will discuss about the application of Blockchain technology in Advanced Study Centre (ASC) system to enhance features.

Keywords: Blockchain; Educational System, Advance Study Centre, ASC, Educational Software.

1. INTRODUCTION

Blockchain technology allow us to create a de-centralized environment, where transactions and data blocks are not under control of any third-party organization. The transaction completed between any two parties or individuals recorded in a block and then permanently stored in distributed public ledger, refer Figure 1 given below.

Blockchain technology uses three basic terminologies: Transaction, Block and Chain to provide transparent, decentralized, distributed and secure structure for data storage.

Three basic terminologies in Blockchain technology:

- **Transaction**

The transaction is an operation of adding or removal of items from public ledger, which always leads to change in the structure and status of the ledger.

- **Block**

The block stores result of all the transactions done between two parties or individuals in particular amount of time.

- **Chain**

The chain is a chronological string of the blocks arranged by cryptographic method.

2. THE BLOCKCHAIN TECHNOLOGY CAN BE IMPLEMENTED IN FOLLOWING WAY

First, we need to create a distributed ledger in the network which only allows addition of new data in the distributed ledger i.e. data from ledger cannot be deleted, this will ensure the non-tamper ability of the data in ledger.

The blocks are interlinked into chain to form a chronological structure of string of blocks. Each block in structure stores the hash value of previous block, as shows in Figure 1. When anyone try to add new block of the transaction in the ledger then entire system will records the transaction and link it with the ledger. Meanwhile block is broadcasted over network and confirmed by all the nodes, which make block undeletable from ledger. In this way the data or block cannot be falsified or forged in system.

Therefore, the Blockchain technology has a transparent, decentralized, secure and distributed structure for data storage. After combining cryptographic technique with Blockchain, it guarantees that the data from ledger cannot be falsified or tamper, can be easily backtracked for transaction and data verification.

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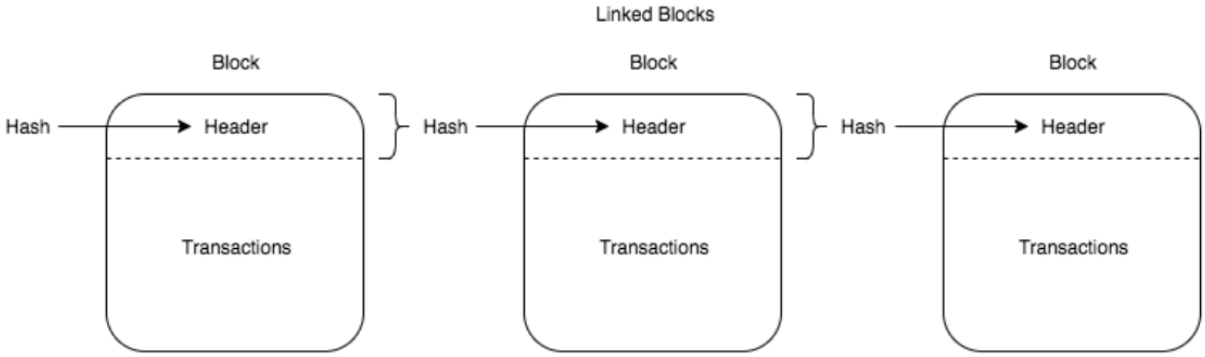
Figure-1: Structure of Ledger in Blockchain



3. ADVANCE STUDY CENTRE (ASC)

Advance Study Centre is an educational software, which is developed using conventional technologies such as PHP, JavaScript, MySQL and PostgreSQL. ASC system stores records in a central database located in the Linux server.

Refer Figure 2 for the context diagram of Advance Study Centre software.

In ASC or any educational system, we have some common fields such as Attendance, E-Learning, Results, Student Data Manage, Announcement and Financial records. We can apply Blockchain technology to enhance features of these fields to make educational software better.

Most of educational systems are still facing some common problems such as online record sharing, course creditability, student privacy, and course sharing. We can minimize these problems by combining Blockchain with educational system. In this paper I will discuss about this briefly. Also, we can add some new features in ASC system with more secure manner such as e-Certificates, e-Diploma, and online records and study material sharing.

Online sharing of academics certificates published by Blockchain technology allow everyone to verify certificates over web on trusted servers.

Use of Blockchain make these academics records non-tamper and unfalsified. We can even trace back from any point to verify any transaction performed on student's educational, personal, attendance or financial records in ASC.

4. LITERATURE SURVEY

The literature research was done on seven different research papers and multiple websites given in reference section. The research string included different types of strings like "Application of Blockchain Technology", "Online Education", "Blockchain-based Educational Record Repository", "Blockchain Opportunities and Challenges", "Blockchain in Virtual Education" and "Exploring Blockchain technology and its potential applications for education".

a) "Application of Blockchain Technology in Online Education" research paper presents the idea of Blockchain to enhance online exams which we can implement in ASC or any educations software.

b) "A Blockchain-based Educational Record Repository" research paper can be applied in ASC to store educational records more effective and secure way using Blockchain technology.

c) The Blockchain can be applied in ASC or any educational software to create and distribute digital certificates of students on web, which can be stored and verified easily at any point. This will help in reducing time for verification of academic certificates of students and provide trustworthiness.

d) MIT has developed Blockchain based application that can issue and verify official records known as "Blockcerts Wallet". This application allows creation of a certificate wallet for students. Students can get their e-certificates and e-diplomas instantly on their smartphones, laptops or any other internet connected smart device.

e) The University of Nicosia is the first higher educational institute that issues student's academic certificates which can be verified through the Blockchain technology globally.

f) "Exploring Blockchain technology and its potential applications for education" research paper shows potential of the Blockchain technology has for educational system like ASC.

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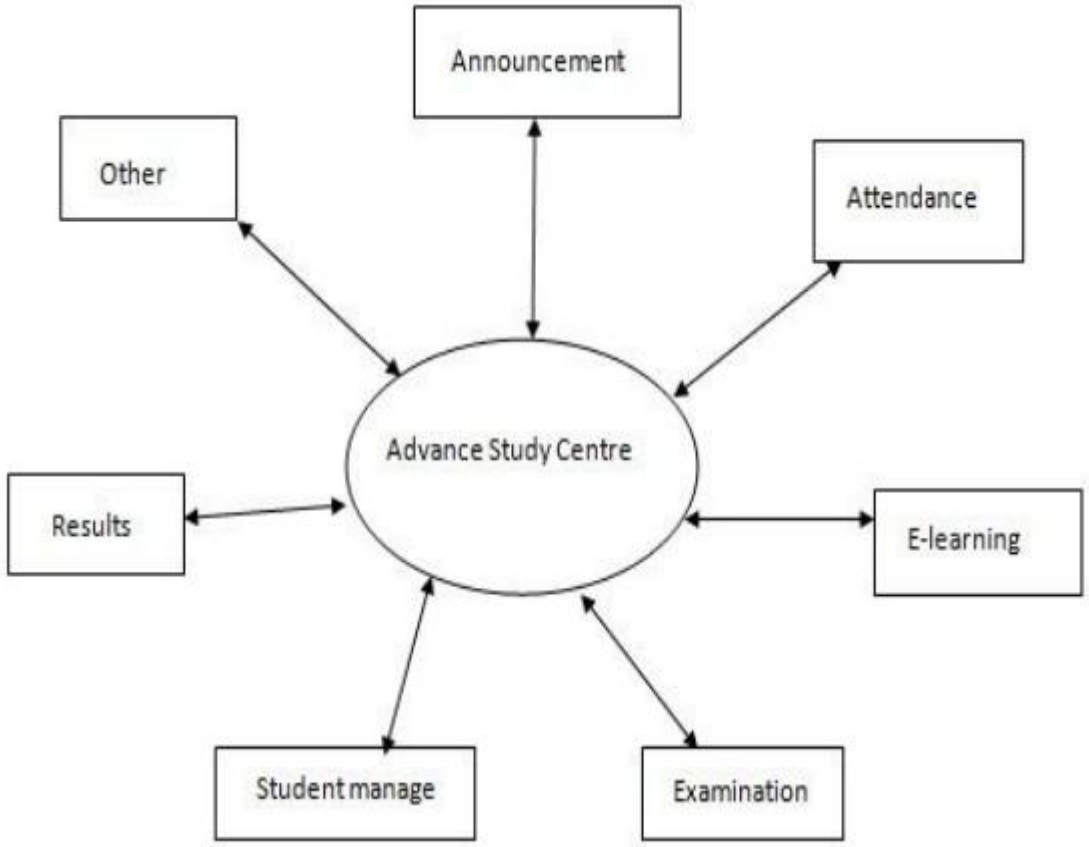
Figure-2: Context Diagram of Advance Study Centre



5. APPLICATION OF BLOCKCHAIN IN ASC

a. Results

We can apply Blockchain technology in ASC to enhance results field. It will allow us to create and distribute academic results in trusted, secure, and open manner. These certificates will be stored with hashing algorithms present in Blockchain, which will make it non-tamper and highly secured.

b. Attendance

We can also add Blockchain to manage attendance records of students in more efficient way. Attendance records of student can be stored in a block and then linked with previous blocks to form a distributed ledger, as shown in figure 1.

Distribution and non-tamper feature of Blockchain ensures that there is no falsified data present in attendance records in ASC database or ledger.

c. Examination

Examination is the field where Blockchain can help a lot to manage data integrity. Examination data generate academic performance, certificate and results of students. Data in examination must be very secure and should not allow any modification without any prior reason. Blockchain allow us to back trace a block in distributed ledger from any for verification of data of any student to ensure data integrity and validate transactions performed on examination data stored in ASC.

d. Financial Records

Blockchain is an accounting technology too. It is concerned with the transactions performed on financial records and maintain a ledger of accurate financial information. Blockchain has the potential to enhance the accounting profession by reducing the costs of maintaining and reconciling ledgers and providing absolute certainty over the ownership.

e. E-Learning

In E-Leaning field, Blockchain can help ASC or any educational system to distribute learning material such as PDF, Documents, Files, Software, Videos, Links, etc. over web with data integrity and creditability of owner.

It will help students to get study material without any modification and credits to the owner of that study material.

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f. Distributed Storage

Currently ASC is storing data in a central PostgreSQL database. If someone successfully hacks central database of ASC, then he can alter actual data of ASC database easily. Data integrity will be lost here. We can minimize this problem by adding Blockchain technology in ASC.

Blockchain stores data in distributes and crypto-graphic manner. So, if someone want to hack data in ASC's Blockchain ledger then he needs to hack and modify all the nodes in the ledger, which is near impossible, if we have secure and large number of nodes in ledger. This also avoid single-point-of-failure problem in central database of ASC too.

g. Academic Record Verification

In K-12 and postsecondary verification of academic results, certificates and achievements remains largely a manual process i.e. heavy on paper documentation and checking case-by-case records. This problem can be easily resolved by Blockchain technology where anyone can verify academic documents easily on trusted sources. Records can be easily broadcasted across network, which will help employer & institutes to validate and verify records. It will help to globally recognize and verify records.

6. CONCLUSION AND FUTURE WORK:

In this paper I have proposed implementation of Blockchain technology in Advance Study Centre (ASC) to enhance features of an educational software. This can be also applied in other similar educational software like ASC to form a global Blockchain ledger with uniform data storage and verification structure.

Blockchain will ensure the security and integrity of data in ASC application. Also, it will reduce time for data verification and provide a uniform ledger where multiple colleges, institutes and universities can verify academic data of any student.

In terms of future work, we can evaluate the scalability issue and impacts associated with deployment of huge repository. The final aspect to be considered is to bring stockholders such as teachers, students, employees and contractors in a way that they can interact with each other on wide-spread and trustable network.

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CLOUD SECURITY: DISTORTION CONTROL AND PRECAUTION TECHNIQUE

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ABSTRACT
Cloud Computing Security allude to the security implementation, deployment, and the precaution to defend against the security threats. Cloud Security deployment of security tools such as application firewall, controlling the policies and hardening the infrastructure. Though cloud computing is offering lots of services with the flexibility, efficiency, and also find threats in cloud services which is vulnerable. It allows the access to personal and shared resources with minimal management. Perfect example for cloud computing is Amazon Elastic Cloud Compute (EC2), which is highly capable, low cost and flexible. The purpose of this paper is to provide a comprehensive overview of latest advance and existing literature covering varieties of dimensions in cloud security. The paper also includes various attacks faced on cloud services and the methods to overcome on it is also been mention in this paper.

Keywords: Cloud security, Physical Security, Cloud deployment, Tools for preventing from attacks, Deployment, IT management.

INTRODUCTION
Cloud Computing Technology is nowadays most popular, because of its ability , flexibility and mobile support. Cloud Computing allows the access to the personal and shared resources with minimal management. It often relies on the internet. But there is third party cloud solution available which saves from expanding resources and maintenance. As we know the most trending example for cloud storage is Amazon Elastic Cloud Compute (EC2), which is highly flexible and capable along with low cost.

Some of the major features of cloud computing includes
- Automated Management
- Virtualization
- On-demand self-service
- Rapid Elasticity
- Measured services
- Distributed Storage

Types of Cloud Computing Services
- Infrastructure as a service (IaaS)
- Platform as a Service (PaaS)
- Software as a Service (SaaS)

o Infrastructure as a Service (SaaS):- It is been used for accessing, managing process and monitoring. This infrastructure services (IaaS) also known as Cloud infrastructure service basically a self-service model. We can take an example like, Instead of purchasing additional hardware such as networking device, firewall, server and spending money on management, maintenance, deployment, IaaS model offers cloud based infrastructure to deploy the remote data center. Most common and popular examples of IaaS are AMAZON (EC2), Microsoft Azure, Google Compute Engine (GCE), Cisco Metapod.

o Platform as a Service (PaaS):- It allows the users to develop, run and manage the applications. PaaS offers Development Tools, Deployment platform, Configuration management, and migrate the app to the hybrid models. It basically helps us to develop and customize applications, manages OSes, virtualization, storage and networking, etc. Examples for PaaS are Intel Mash Maker, Google app Engine, Microsoft Azure, etc.

o Software as a Service (SaaS):- SaaS is the one of the most common type of cloud which is been used in cloud computing is widely than other services. On demand Software is centrally hosted accessible by user using client through browsers. An example for SaaS is office software such as office 365, Cisco WebEx, Citrix GoToMeeting, Google Apps, DBMS, ERP, CAD, HRM, messaging software, etc.

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Cloud Deployment Models for Cloud Services are as follow

1. Public Cloud- Public Cloud are hosted by the third party which offers them different types of cloud computing services.
2. Private Cloud- Private Cloud are hosted personally & individually. Corporate companies usually have their own private clouds services due to their security policies.
3. Hybrid Cloud- Hybrid Clouds are combination of both private and public cloud respectively. Private cloud is used to enhance their sensitive and public cloud capabilities and services.
4. Community Cloud- They are accessed by the multiple parties having common goals and shared resources.

Benefits for Cloud Computing

- Increased speed- Cloud Computing environment has dramatically reduced the time and cost of new IT services the increase speed for the organizations to access the IT resources.
- Low Latency- In the using of cloud computing, the customers have the facility of implementing their applications with just few clicks, so they can do their task easily at minimal costs, i.e., not more time consumed as well as minimal latency is been produced.
- Security- In the terms of security, cloud computing is always been very efficient. Highly recommended advantages include less investment over security with the effective patch management and security updates. Disaster recovery, dynamically scaling defensive resources and other security services also provides with the protection against cloud computing threats.
- Less Economic Expense- This is the major advantage in cloud computing. No need to purchase any kind of external hardware for particular function. Data Centre, Networking, and other services can be easily virtualized over cloud saving the cost of purchasing any hardware, configuration and management complexity and less maintenance cost.

WORKING

Cloud computing consists of some activities that have been taken for the service provider end as well as the action that should be taken under the user end.

Cloud Security working under some control layers, which have been discussed below:-

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✔ **Application Layer**

There are some security mechanisms, devices and the policies that provide support at different cloud security control layers. In the application layer, Web application firewall are deployed to filter the traffic and observe the behavior of the traffic. Likely, Software Development Life Cycle (SDLC), Binary Code Analysis, Transactional Security provides the security for online transactions, etc.

In cloud computing , to provide confidentiality and integrity of information that is being communicated between client and server, different policies are configured to monitor any kind of data loss. These policies includes Data Loss Prevention (DLP) and the content management framework. DLP is the feature which generally offers to prevent the leakage of information to the outside network. Traditionally this information may include company or organizations confidential data, proprietary, financial and other secret information. DLP also features ensure the enforcement of compliances with the rules and regulations using Data Loss Prevention policies to prevent the user from intentionally or unintentionally sending this confidential information.

Security of Cloud Computing regarding management is performed by different ways to approaches the Governance, Risk Management, and Compliance (Grc), Identity and Access Management (IAM), Patch and Configuration Management. These approaches helps us to control the secure access t the resources ad manage them.

✔ **Network Layer**

The next generation of intrusion prevention systems, known as NGIPS, is one of the efficiently active components in integrated threat protection solutions. NIIPS provide a robust security layer with deep visibility, enhanced security intelligence, and enhanced security against emerging threats to secure the network's complex infrastructure. The CISCO NGIPS solution provides deep network visibility automation, security intelligence and next level security.

It uses the most advanced and effective intrusion prevention capabilities to reach emerging sophisticated network attacks. It continuously collects all the information regarding the network, including the operating system, files and applications information, users and device information. This information helps NGIPS to determine network maps and host profiles which lead to contextual information to make better decisions about intrusive enhancements.

✔ **Trusted Computing**

The Root of Trust (RoT) is established by validating each components of hardware and software from the end entities up to the root certificate. It makes ensure that only trusted software and hardware can used while still retaining the facilities and also retaining the flexibility.

✔ **Computer and Storage**

Computer and Storage in cloud Computing can be secured by implementing Host-Based Intrusion Detection or prevention system HIDS/HIPS. Configuring Integrity Check, File system Monitoring and log file analysis, connection analysis, Encrypting the storage, Kernel Level Detection, etc.

Host Based IPS/IDS is normally made for the protection of specific host machine, and it works closely with operating system Kernel of the host machine. It creates the filtering layer and some kind of filters which make them to purify any malicious application call to the OS.

✔ **Physical Security**

Physical Security is always been the required priority to secure anything. It also the first layer OSI model, if devices is not physically secured, any sort of security configuration will not be effective. Physical security includes protection against man-made attacks such as damage, thefts, unauthorized physical access as well as environmental impact such as dust, rain, fire, power, failure, etc.

EXPERIMENTS

In clouds computing the most common attacks that are being used by an attacker to exploit or extract sensitive information such as gaining an unauthorized access. The attacks are as follow-

- **Service Hijacking using Social Engineering Attacks-**

As we know about the social engineering attacks. Using social engineering techniques, an attack can be attempted to guess the password. Social engineering attacks occur when unauthorized access to uncover sensitive information according to the compromised user's privilege level.

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- **SQL Injection Attack**

SQL injection attacks allow attackers to lose identity, cause damage to existing data, and also causes counter attack. Issues such as transactions or changing balances allow full disclosure of all data on systems, destroying data or otherwise being unavailable, and becoming administrators of database servers.

- **Domain Name System (DNS) Attack**

Domain Name System (DNS) attack include DNS Poisoning, Cybersquatting, Domain hijacking and Domain Snipping. An attacker may attempt to spoil the DNS server or cache by poisoning it to gain internal users' credentials. Domain Hijacking mainly involves in stealing cloud services domain name. Similarly, through Phishing scams, users can be redirected to a fake website

- **Session Hijacking using XSS Attack**

By launching Cross-Site (XSS), the attacker can steal cookies by injecting malicious code into the website.

- **Cryptanalysis**

Cryptanalysis is the science of encoding and decoding codes. It is used more benignly, to find and correct weaknesses in encryption algorithms, to violate authentication schemes, and to break cryptographic protocols.

- **Dos/DDoS Attacks**

DOS / DDOS attacks are being done to create a machine or network. Temporarily unavailable and indefinitely interrupted service of host network to connect to server

- **Session Hijacking using Session Riding-**

It is been use to intend for session hijacking. An attacker may exploit it by attempting cross-site request forgery. The attacker uses currently active session and rides on it by executing the request such as modification of data, erasing data, online transactions and password change by tracking the user to click on malicious link.

- **Service Hijacking using Network Sniffing**

Using Packet Sniffing tools by placing them in the network, then attacker can capture sensitive information such as password, session ID, cookies, and another web service related information such as UDDI, SOAP, and WSDL.

Tools used to detect & prevent those attacks are as follow-

o Core Cloud Inspect

Core security Technologies offers “Core CloudInspect”, A cloud Security testing solutions for the Amazon Web services (AWS). This tool has been helping to make the profits from the core Impact and core Insight Technologies to offer penetration-testing as a service from Amazon Web Services for EC2 users.

o CloudPassage Halo

CloudPassage Halo provides a broad range of security controls. It is focused Cloud Security solution which prevents attacks and detect the indication of compromise. Cloud Passage Halo operates under ISO-27002 security standards and is audited annually against PCI level 1 and SOC 2 standards. Cloud Passage Halo is the only workload security automation platform that provides speed and scale to on-demand delivery of security control speeds across data centers, private or public cloud, virtual machines, and containers. Unlike traditionally security systems, Halo and its secure APIs integrate with popular CI / CD toolchains and processes, providing periodic feedback to fix vulnerabilities in the development life cycle. This allows DevOps teams to perform security teams by providing the validation they need. Halo integrates easily with popular infrastructure automation and orchestration platforms allowing Halo to be easily deployed to continuously monitor workload security and compliance posture.

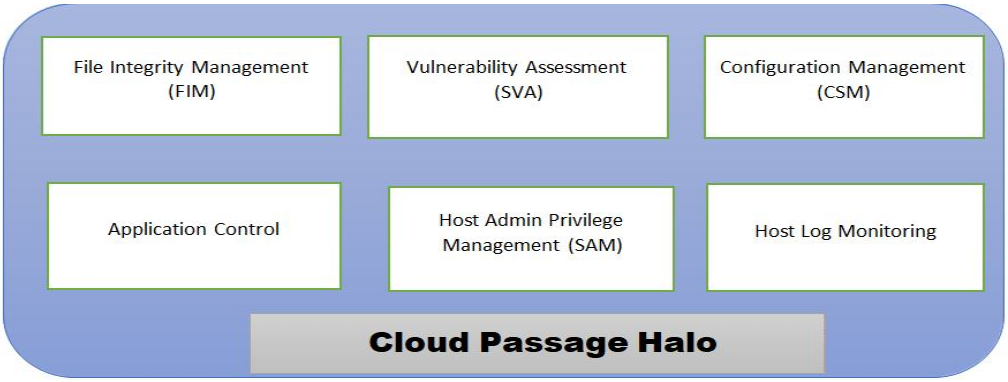

Fig: CloudPassage Halo

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CONCLUSION

In Research studies, there should be a bond of trust and privacy between the service provider and the client. Security must be seen as a continuous process to meet the changing needs of a highly volatile computing environment. There is a need to have a holistic view of cloud computing security methodology, which can be used in any service model in general, as long as the customer is not using the service. There should also be self-awareness from the client about self-protection. In view of these observations, this study provided a detailed review of the existing literature and offered several research areas based on existing research work where future work is required. The paper can provide an important aid for obtaining research areas where further work is required, especially for entry-level researchers. The responsibilities provided by the service provider should be consisted of web application firewall, secure web gateway, load balancer, application security and virtual private network. Cloud service clients should be aware of public key infrastructure, firewall, encryption, security development life cycle (SDLC), and others.

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STUDYING DARK WEB A BOON OR AN IMPRECATION

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1.1 WHAT IS THE DARK WEB?

What if I told you that all your demands in this world, no matter what will be completed here. What if you become the bad guy you fantasize to be and don't get your hand dirty?

Let me make you understand the darkest region of the internet, Darkweb. So what the heck does all of that mean? Well, consider that everything you do on the Internet is based on long-established standards. There are dozens of different web browsers, but they ALL work the same way. They all use the same ports and protocols to request, transfer and view data on the Internet. Think of it like a business that is run by the mob. There is a store that is a real and fully operating store that anyone can walk into and shop from. But then there is the back of the store where other things are happening. It may be criminal in nature, or it may simply be a place where people can have a conversation that will not be monitored by anyone else. In order to get into the back area of the store, you need to say a password to the guy working in the front. Well, this is really all the Darkweb is. You use special software, such as TOR (The Onion Router) or Freenet which creates these non-standard connections and allows you to browse around (often using your regular browser, but modified to work on the Dark Net). These Dark Net applications are also heavily focused on keeping you absolutely anonymous. Most people think they are anonymous on the regular web, but in actuality your browser provides tons of information to reveal who you are and where you are.

So the ultimate goal of the DarkWeb is to provide 100% anonymity. There is nothing inherently sinister about the Darkweb, and people who write the software which creates these connections are primarily motivated by trying to allow people living under extremely oppressive governments to have access to all of the news and information that those of us living in free societies take for granted. Unfortunately, that is also exactly the sort of environment which attracts criminals, terrorists, and all manner of individuals who wish to share such dubious content as illegal pornography.

If you do decide to explore the DarkWeb, you just need to be EXTREMELY careful! It is very much a lawless environment, and you could very easily have your computer compromised and not even realize it.

Dark Web. Yes, this is the place. A mysterious virtual world, loaded with the darkest secrets of humanity, Mecca of people seeking an adventure sitting at home.

First came across the term when I went for a MUN a year ago about Contraband Trafficking. (I am 'unexplainably' good at MUNs that's different.) Back then the word made no sense to me. What I cannot access how do I know what it is? I was too ignorant back then to even put decent research in this topic. Most of them are dead, because the deep web sites keep shifting from one URL to the other and they are too complex to be kept in memory.

On the first day (rather night)I found these things: 1. Online anonymous chat for people using deep web. 2. 1000000+ warnings about child porn saying it's illegal. 1000000++1 people in chat rooms wanting links for child porn sites. 3. Used DuckDuck Go search because Google tracks you. 4. Got notEvil, a TOR search engine. Day by day I discovered more:

1. A guns and ammo store
2. A site selling Kamagra, Viagra.
3. Site selling stashed iPhone and electronics.
4. From this I got the link to a drug trading site. H
5. Another link to a site where you can apparently hire Hitmen to do the dirty job for you.
6. Then comes the main deal.

I found a site, claiming to supply forbidden information. I found there stuff as: · Lock picking tutorial. A text fileYou need a lock pick for it and I haven't got any idea how to buy one) · Burglary, robbing, shoplifting tutorials. All text files. Interesting little text file. · Tutorials on cannibalism, how one butchers a human corpse for human consumption, the criterion for choosing the right "animal" and how to treat it before killing. You get a bonus recipe too, for cooking it. Was reading it in a public bus, feeling like an anarchist plotting his move.

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Tutorials on fighting , being a Hitman, assassination guides. · Entire collection of Islamic propaganda Dabiq magazine. · Jihad Snuff Videos- The ones where people are shot and beheaded. Got them in a torrent. Watching one disgusted me so much I got rid of them in one go. This really makes you feel the reality of terrorism even when you are sitting in the comfort of your home. I have never seen anything so horrible.

There are more to that site I haven't found all of them. Here are some more things I found on while I was searching the deep web with notEvil:.

1. Porn: the ones on the deep web are nothing special, just like surface web sites though they load slower in deep web because of th multiple proxy servers
2. Sites which claim to supply counterfeit driving licences, ID proofs, credit cards and other fake IDs. 4. Child porn. Yea a debated topic. You keep on hearing about sites like Lolita City but they are most probably closed now because the people behind these sites have been but behind the bars. However, I came across child nudity when I least expected to. I searched for Vintage and I ended up with child porn. Never visited that site again.

1. Red Rooms

The one that is most persistent is the myth of the "Red Room" - live streaming of torture/rape that ends in the murder of the victim and which people can pay to watch, or even bid to type in commands for the torturer to carry out (highest bid wins!). The most famous was the “ISIS Red Room” pictured above, where people could provide instructions to torture captured terrorists -

People have this idea of Hostel with webcams exist all over the darkweb, but you just need an invite to get into them. It's ridiculous. They don't exist. They certainly wouldn't exist on Tor. But people are desperate to believe and they always come back with "You can't prove they don't exist, people are crazy, therefore they must exist." Picture my eyes rolling here.

2. Hitman sites

I don't think many people are taken in by the hitmen sites anymore, though the press loves playing up the fact that there are sites offering up hitman services. But every single one of them has turned out to be a scam, especially Besa Mafia, the one that did the most marketing. Again, you can read about it at the same link as above.

3. Exotic animals

People are always asking where they can find markets for exotic animals. Obviously the illegal trade in exotic animals exists, and some communications and transactions may well take place over Tor, but there are no markets like the drug markets where you can go and look at a picture and then put a tiger or ocelot or something into your basket and buy it with bitcoin.

1.2 SO WHAT DOES HAPPEN ON THE DARKWEB ?

1. People buy and sell drugs.

The drug markets are more busy than ever. You have probably heard of Silk Road, the most famous online drug market that got busted a few years ago and the owner sent to prison for two consecutive life terms? A lot of people thought that was the end of drugs being sold on the darkweb. In fact, darkweb sales of drugs have tripled since the shutdown of Silk Road.

The reason people buy drugs this way is that for many they offer a safer alternative for people who are going to do drugs anyway. There is no possibility of any violence. The vast majority of the time a buyer knows exactly what they are getting, because of the feedback and rating system. That's not the case in a nightclub, or even friends-of-friends, where you just blindly accept that the pill, powder or tab is what the seller says it is.

2. People buy and sell other illegal things

Mostly they buy and sell stolen credit cards and financial information, fake IDs (though lots of these are scams), personal information, “dumps” of hacked data and fraud-related items. For a long time, a seller was making a fortune selling fake discount coupons that really worked.

3. People access and create childporn

Unlike the other markets, the CP market is generally not for money, but rather they are groups who swap vile images and videos for free. The worst of the worst is called “hurtcore’. Thankfully, most of the people behind the worst sites have been arrested and put in jail.

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4. People talk about stuff
There are plenty of sites, forums and chatrooms where people talk about all sorts of things - conspiracies, aliens, weird stuff. They take advantage of the anonymity.

5. People anonymously release information
Whistleblowers use the darkweb to release information and make sure their identities won't be compromised. You will find Wikileaks, for example, on the darkweb.

6. People surf the web anonymously
The number 1 thing people use the darkweb for is just to surf the web completely anonymously. Not everybody wants to be tracked by advertisers.

There are a lot of things that are happening there. A lot of them are bad. Some most popular illegal activities down there are:

- Trading with firearms
- Hired hitman services
- Trading with drugs
- Childporn
- Terrorists' pages and footages
- Confidental data leaks
- Sharing ideas on how to rule the world
- "How to make amfetamine at home" etc.
- Explosives manuals
- Advices for beginner assasins

And many other. I've even heard of websites, all dedicated for necrofils (those who like dead bodies). Really, there are so many weird websites, that a lifetime is not enough to find and visit them all. Is there anything good in the Deepweb then? Yes, but when comapared to the "bad" part, it's almost nothing. Why can't we stop it then? Well, it's quite complicated

1.3 WHO CONTROLS THE DARKWEB?
First of all be clear with the fact that dark web is that part of internet which can’t be accessed by the browsers in their normal configurations or has certain special protocols that need to be followed for having access to it. So if today I create a browser of my own that follows protocols other than what we us usually have and create host some websites that can be accessed only by the browser that I created those websites will be part of dark web.

Most commonly known dark web includes onion websites or TOR network which you access using TOR browser. Even freenet and I2P are not well known to public.

So I will keep the answer limited to TOR project and onion websites aka TOR network.

If you have been using github you must be aware of open source codes and their management. Well TOR project is open source and everyone has equal privilege for suggesting any changes in it (changes should be meant for its betterment or improving its functionality and privacy level with time). Again I say its an open source so anyone can read its source code and also the changes that are being brought. Its a peer to peer network (and not a client server system where server is the central party) so there is no centralisation. So anyone can become a relay or node in this network, anyone who wants to improve the experience of its users. Many individuals and organisations are relay in TOR network at the date.

So no one controls the TOR but public as a whole (nodes are what your traffic passes though to privide you anonymity, by default your traffic will pass through 3 nodes but you can configure manually the number and the nodes also).

The Tor Project, Inc - a non profit organisation works for maintaing the tor browser and that doesn’t mean it controls the TOR network. TOR network is not controlled by any single person or organisation.

Also note that American agencies are known for looking into privacy of users accross the internet and many of nodes or relays could be of these agencies especially the exit nodes. Also because these agencies are known for

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gathering “fingerprints” of users (it involves a lot of details related to your device and activities say time zone, language settings, Operating system, installed plugins, screen resolution etc) and suppose today you go to google and search TOR download all your fingerprints will ne stored by these agencies corresponding to the fact that you must be a TOR user (of course they can also check if you visited TOR download page later and activity you did there). But that diesel mean they control TOR web that simply means they also became a part of it and are trying to fugure our notorious persons. Anyways surfing TIR web is not a crime unless you do surf illegal websites like child porn or human trafficking or drug dealing etc. Also TOR browser itself keeps improving and handles your anonymity at its best (best encryption) and also includes fingerprints (TOR browser is configued so that user’s fingerprint is identical to every other Tor browser and is no different from common fingerprints across the we). Also there are other several tools to spoof fingerprints.

I did a survey to understand if people really know what is dark web or have they ever tried to access Dark web.

Following were the questions asked to students from different age categories and different streams.

1) Do you know what is Dark web?
2) Do you know why dark web is used?
3) If yes tell us why it is used.
4) Have you tried to access dark web?
5) If yes, why ?
6) If no, will you access dark web? why ?
7) According to you what makes dark web different from surface web?

The results were quite surprising.

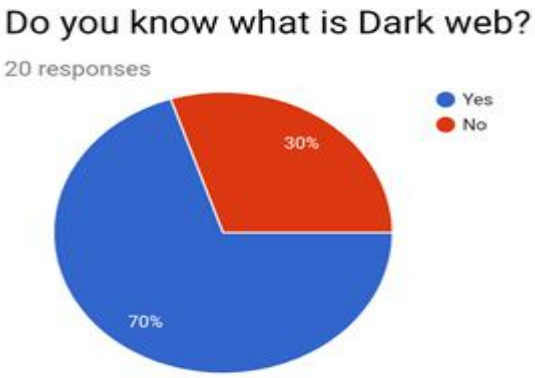

Diagram 1.1

From the above pie chart we understand that 70% of people know what is Darkweb. whereas 30% of people are unaware of Dark Web which is quite shocking because nowadays because of the tremendous use of technology and internet the risk of our personal information or private information can be hacked or stolen if ever people try to access dark web without proper knowledge or precautions. Dark web is full of illegal and harmful data which can harm your device or harm your mental health because of cruel, graphic and pornographic content.

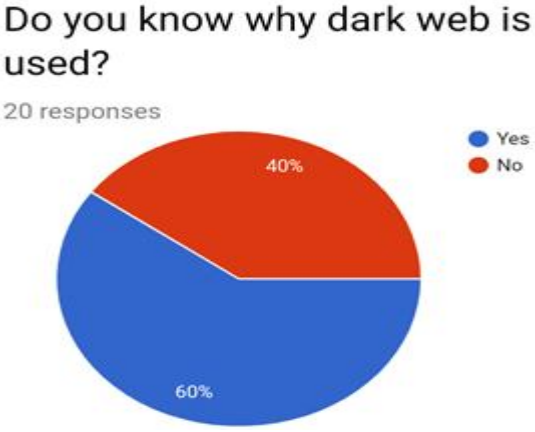

Diagram 1.2

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Looking at the above piechart we understand that the people who know why dark web is used is more i.e 60%. That means 10% of the people have heard about Dark Web and are unaware why it is used.

40% of the people are not aware why dark web is used.

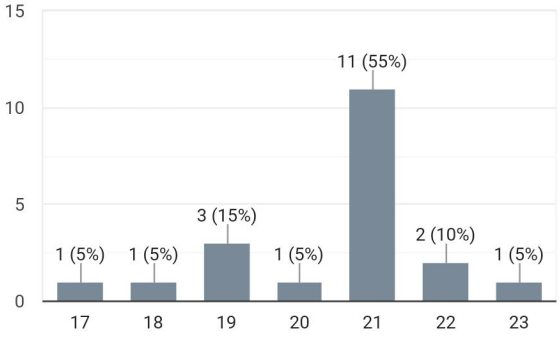

Diagram 1.3

The survey was conducted between the age group of 17 to 23

People who know what is dark web are aware about the illegal activities that take place.

Dark web is used for illegal trade where bitcoins are used to pay for goods or any service which aren't free.

According to my survey, these are some inferences which I have drawn.

Dark web as a website is quite common, however not much people know about its actual purpose. It is seen that people are extremely curious about the Dark web or want to access it to browse about its actual content. Along with curiosity, many have opted to access it for fun as well.

On the other hand, reasons to not access the Dark web are quite common.

Mostly those are because of ethics and it being illegal. People are also concerned about different viruses that can come with accessing the Dark web.

Popular opinion was that the Dark web is different from surface web (eg: Google).

Anonymity being an important aspect of the Dark web. Secondly, Dark web cannot be accessed by anyone. People highly regard it as a dangerous web surface because it is considered illegal.

1.11 CONCLUSION

We have the following conclusions:

First, while important for information search, the dark Web remains largely unexplored– At this point, it is neither well supported nor well understood. The poor coverage of both its data (by search engines) and databases (by directory services) suggests that access to the deep Web is not adequately supported. This survey seeks to understand better the dark web. In some aspects, the dark web does resemble the surface Web: It is large, fast growing, diverse and can be dangerous.

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DE-DUPLICATION IN CLOUD STORAGE: A REVIEW

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ABSTRACT
Now a days Cloud Storage is becoming popular not because of its cost efficiency but because of its provision of huge storage that's why for user outsourcing data is easy. Based on surveys it is told that half of the storage on cloud is occupied by duplicate data or files [1]. So, it is necessary to learn new techniques for save bandwidth and disk space. It is challenge for cloud service provider to manage increasing huge quantity of data. To manage this increasing data many data management techniques are introduced one of them is De-Duplication. In deduplication it stores or keep only one physical copy of data instead of storing multiple copies of exactly identical data. Cloud storage services like Google Drive, Dropbox, Mozy choose deduplication technique [4].

Keywords: Cloud Service Providers (CSP), Data De-Duplication, Cloud Storage, Convergent Encryption

I. INTRODUCTION
The most important service in cloud is data storage service. Users upload their personal data on cloud and it is mange by cloud service providers. After looking at the increase in amount of data it is expected that 44 zettabytes of data will produce in 2020. Now a days the management and storage of this large amount of data is challenging.

De-Duplication technique attracted more attention to make data management more scalable. When same data is outsourced by multiple user's deduplication is more effective [4]. De-Duplication is one of the data compression technique [4]. In deduplication it stores only one physical file of data and provide the pointers to the similar data holders. Because of deduplication 68 percent in standers file and in backup application 90-95 percent data storage reduce.

In cloud services the privacy and security of user data is important to maintain that privacy data is uploaded in encrypted format. When user encrypt data using traditional encryption technique deduplication not work on it, to overcome this problem convergent encryption technique is introduced.

II. FORMS OF DATA DE-DUPLICATION
Data de-duplication has different forms [1]. Different organization use multiple strategies according to their need. Data De-duplication has three types.

- Compression
- Single-instance storage
- Sub-file de-duplication

A. Compression
Data compression compress the given file and reduce the file size it does not eliminate duplicate files. It works within the file. It helps with identify empty space which appears in repetitive patterns and remove it. That data de-duplication is local to file and remain independent to data segments and other files. Data compression is available for many years but its advantages are limited it is isolated for each individual file. It cannot identify the duplicate file and remove it but it will compress each independent file

B. Single-instance storage
As a name suggests the single-instance storage (SIS) keep only single instance of data and pointers are provided for other users who own the same file. The SIS can remove multiple copies of same file [1]. It can detect and eliminate multiple copies of identical file. In SIS system check the content of file before uploading it on cloud to determine the file is identical with existing file or not. The files which are stored as a unique in cloud using SIS there may be large number of redundancies in those files of file. The SIS check the whole file as a one so if new name is added to the presentation of same file it will declare that file as a different file without further deduplication even if the change is very small.

C. Sub-file de-duplication
If redundant data exists in different file it can be avoid using sub-file deduplication. Using sub-file deduplication redundant data are removed even if duplicate data exists in nonidentical file. As a result, it removes duplicate data from data storage. The sub-file deduplication has two types of implementation.

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- Fixed-length
- Variable-length

1. Fixed-length

Fixed-length deduplication use the fixed length of data to search redundant data within file. This method is simple in design but many redundant sub-file data. Assume that if new name is added to the files title the whole content of that file will shift and it will result in failure in data deduplication. That means the small change in file cause the non-equivalencies in file.

2. Variable-length

The variable-length implementation is not correspondent to the segment file. It matches the segment size and check duplication which are occurring within the file, so this method increasing the ratio of deduplication.

III. DATA DE-DUPLICATION PROCESS

Data deduplication is also called as Intelligent Compression means of reducing the data amount that need to store. The process of deduplication works with eliminating repeated or redundant data and store only first unique instance. If user tries to store the data which is already present in data storage then it creates the pointer rather than storing redundant data. Using hash algorithms such as SHA1 of MD5 the unique hash number is created for each chunk or file. The created unique hash value is compared with the existing hash value in the index. If the new hash number and existing number did not match then the data store in storage and the hash value of that data is added to that index. If the new hash value match with index hash value then it will not store data and the hash value it will update the data owner list and add new owner to that list. Sometimes the algorithm produces the same hash value for different chunks its call hash collision, it is necessary to avoid hash collision to prevent data loss. In Fig. 1 the de-duplication process is shown. In this process three users are involved. The users upload their data to the server. The file B1, B2 and B3 is common and hence when deduplication happens it will only store the one copy of B1, B2 and B3 and provide the pointers to the other owners who try to upload the same data file. The deduplication technique saves the storage space and bandwidth but also increase the speed of disaster recovery process and remote backup.

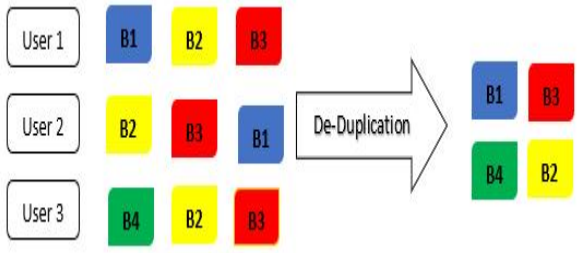

Fig-1: Data De-Duplication Process

IV. HOW DE-DUPLICATION WORKS?

De-Duplication compares the data usually in files or blocks and remove redundant data which are already present in data storage. It keeps the data which is unique and eliminate the data which are not unique. The process is as follows.

1. Divide the input data in blocks or chunks.
2. The calculation of hash value for each block is needed.
3. The hash values which are got is use to determine the blocks are already stored or not.
4. Replace the redundant data with pointers or reference of the blocks which are already exist in database.

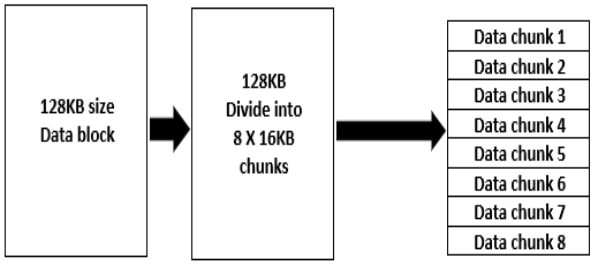

Fig-2: Division of blocks according to chunks

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As shown in Fig. 2 the data block is divided in equal data chunks and for every data chunk the hash value is created as shown in Fig. 3. An index is created from the result of data chunk and using that index redundant data is found and eliminated. Only one copy of every data chunk is store in storage.

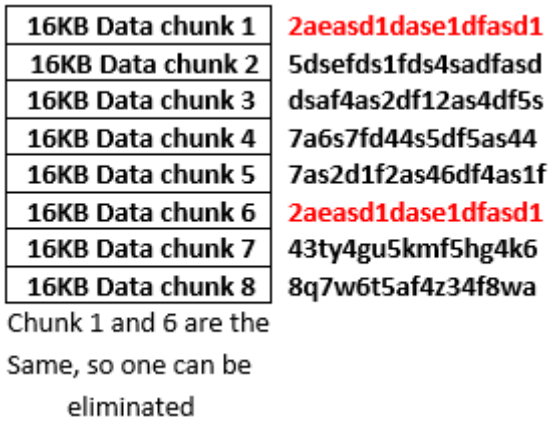

Fig-3: Hash number generation for data chunks

Once data divided into chunks, using the hash value of that chunk index can be created and using that index redundant data that will found is removed and only single file of every chunk will be store. The deduplication can implement in number of different ways. The duplicate data can be removed by comparing files and remove which is old and no longer needed.

V. IMPLEMENTATION

Using convergent encryption data confidentiality is provided in process of data deduplication. The convergent key is derived from the original file and either using SHA1 or MD5 the data copies are hashed and encrypts the data or file using generated encryption key. The *tag* is also derived from the original data copy, this *tag* will use for duplication detection or check. If the tags of two files are identical, it means their data copies are also identical. The user first sends the tag to the public cloud to check whether the given tag is previously stored or not. Both tag and convergent key are derived separately that's why they are independent, thus using tag you cannot achieve convergent key thus data remain confidential. The encrypted data or file and its tags are store on server side. For define convergent encryption there are four functions as:

- $KeyGen_{CE}$ (M) – K this function is for convergent key from M to convergent key K, for original data or file M function is use.
- Enc_{CE} (K, M) – C this function symmetrically encrypts original data or file take convergent key K using M as its parameter to form ciphertext C.
- Dec_{ce} (K, C) – M is the function which use for decrypt the data, it takes ciphertext C and convergent key K as an input parameter and then recover original data or file M.
- TagGen (M) – T(M) is the *tag* T generation algorithm, *tag* is generated from original data copy or file M.

VI. DATA CONFIDENTIALITY AND DEDUPLICATION

A. Traditional Encryption

Data deduplication which is beneficial for data storage due to it some security issue arises. Users sensitive data can be attack to prevent that some encryption is done which provide some data confidentiality but this encryption technique is not compatible with data deduplication. Specifically, traditional encryption is not compatible with deduplication because different users encrypt their data with their respective privet key. Because of this even if the data is exactly identical their ciphertext will be different that's why deduplication cannot be done because the files are not exactly same, it means there is no scope for data deduplication.

B. Symmetric Encryption

Symmetric encryption uses common secret key *k* for encryption and decryption. Symmetric encryption has three functions:

- $KeyGen_{SE}$ (1^{λ}) – *k* is the algorithm which generates the key *k* using security parameter 1^{λ}.
- Enc_{SE} (*k*, M) – C is algorithm which use for symmetric encryption, it takes *k* secret key and M message is an input and give C ciphertext as an output.

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- Dec_{SE} (C, *k*) – M is algorithm which use for symmetric decryption, it takes ciphertext C and secret key *k* as an input and give M message as an output.

C. Convergent Encryption

Convergent encryption ensures the confidentiality of data in deduplication. User derive convergent key for each message M and using that convergent key encrypt the message. The *tag* is also derived from that message M which use to detect duplicate files. If two message M have same *tag* that means the messages are same then deduplication work on them and eliminate one of the messages and provide pointers. For define convergent encryption there are four functions as:

- $KeyGen_{CE}$ (M) – K this function is for convergent key from M to convergent key K, for original data or file M function is use.
- Enc_{CE} (K, M) – C this function symmetrically encrypts original data or file take convergent key K using M as its parameter to form ciphertext C.
- Dec_{ce} (K, C) – M is the function which use for decrypt the data, it takes ciphertext C and convergent key K as an input parameter and then recover original data or file M.
- TagGen (M) – T(M) is the *tag* T generation algorithm, *tag* T is generated from original data copy or file M.

The convergent key is obtained from cryptographic hash values of the message M, this convergent key is use for the encryption and decryption of the message M. Using convergent key, the same cipher text obtains from the identical data of the different users which makes deduplication feasible with data confidentiality.

D. Proof of Ownership

The Proof of Ownership (PoW) allow the user to prove the ownership of data M to storage provider. Proof of Ownership (PoW) is work as interactive algorithm between user and storage server. The Φ(M) is derive from the data copy M by storage server. Then user send Φ to the storage server to prove the ownership of data. If Φ=Φ(M) that means the user have the same data which is already available in the storage data and then the user is accepted as an owner of that data and added to the owner list.

VII. CONCLUSION

The data confidentiality is most important concern to the user and deduplication provides it. The data deduplication is very convenient and cost effective. Deduplication provides data protection while doing duplicate check. We see need for deduplication, how deduplication works, types of deduplication and how to make deduplication compatible with encryption. We see how the convergent encryption is better than the traditional encryption, we learn how the Proof of Ownership (PoW) confirm the ownership of data. Because of deduplication user is not charged for duplicate storage, it also provides security from insider and outsider attackers.

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E-BANKING SECURITY & ENCOUNTERS

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ABSTRACT
Banks are using traditional technology in the head of connecting technology to improve their products, services and efficiency. Banks are using electronic and telecommunication networks to deliver widespread range of value added products and services. Security and safety of e-banking transactions is the most vital area. Security issues include accepting internationally with best and smallest technology standards for access control, encryption / decryption (minimum key length etc.), firewalls, verification of digital signature, etc.

The monitor and operation issues can have various risk controller measures, advance warning system, Information technology assessment and re-engineering of operational procedures.

I. INTRODUCTION

IT revolution has introduced new technologies are being used in production and service sector. IT tools are used for the better performance and at a faster growth rate. Arrival of foreign and locally private banks with effective technology pressed banks to follow the latest technology to meet the growing competition and keep their customer satisfaction. Privacy in Internet banking is combination of both the computer and communication. The main aim of computer security is to preserve computing resources against illegal use, and to protect data from accidental and careful damage, release and modification. The purpose of communication security is to shield data during the communication in computer network and distributed system.

I. Protection privacy of an individual

Authentication: Process of verifying demanded identity of the user, machine and software component or other entity. An IP identifies a computer system on the Internet, just like a phone number recognizes a telephone. It is the responsibility so that unauthorized users do not enter, or for verify the sources from where the data are received. Its very important and it ensures approval and accountability.

Access Control: Process to control the access to the system and its facility and providing the access facility by allocating resources. It provides protection of the system resources against third party access. access control uses the authenticated characters of principals and the information about these principals to identify and grant access rights. It is done based on hand in hand with verification.

Data Confidentiality: It is process to provide protection of data from immoral expose is called data confidentiality. Internet is open to all, all data transfer can be monitored and read by others. It is difficult to monitor the transmission of data at random, because of different links and various un ethical practices. This may include different details such as credit card number, deposits, loans or password etc. Confidentiality is way beyond data transfer and includes various connected data storage system. Password and various access control approaches help in to secure data.

Data Integrity: It takes care that the data is not misused in wrong way or is changed. Loss of consistency of data can be done by human and hence it is human error. It can be intentionally tampered, or even disastrous events can occur. Delay in protecting the data can damage the data or even it can be erased or tampered. Efforts must be made to ensure the precision of data all the time. Access control, encryption and digital signatures are the methods used to confirm data integrity.

Non-Repudiation: Non-Repudiation allows creating a proof that the data sent by the sender has reached the recipient and is not false or the data received by the recipient is not false. To look that a transaction is safe, measures must be taken to forbid parties from arguing the validity, refusing to acknowledge, genuine communication or transaction.

Security Audit Trail: It is a self-governing review and inspection of the system's records and activities and test for capability of system controls. It ensures defiance with recognized policy and operational procedures, look at the unfair activities.

What are different types of Attacks and Compromises?

When a bank's system is connected to the Internet, attack can be done anytime and from anywhere around the world. Favourable level of security must be installed before business on the Internet can be conducted easily. An attack could be of type:

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- The unknown person can gain unauthorized access.
- The person can gain access and can destroy, corrupt or otherwise can change data.
- The Person gains access and grabs control partially or entirely, perhaps denying access to important users.
- The unauthorized user does not gain access but gives fake message to the system.
- The user is not able to access, but introduces various malicious and harmful measures that leads in failure in network, reboot, and hang.
- Todays security techniques have made the security very strong but not impossible. The system should be configured and security patches updates should be done regularly so that there is not any loop hole. There is various information with respect to security hole and their fixes is freely available on the Internet. System administrator should be update himself from new coming challenges information about the new technology.

Common cracking attacks include

- E-mail bomb and List linking.
- Denial-of-Service.
- Sniffer attack.
- Utilizing security hole in the system software

E-mail bomb: It is a harassment tool. An old-style e-mail bomb is just filling your mail box with irrelevant mails so that the inbox is filled.

Denial-of-Service (DoS) attacks: DoS attacks can temporarily injure the entire network (or at least those hosts that rely on TCP/IP). DoS attacks mainly takes place at the heart of IP implementations and hence it can pick up at various platform, a single DoS attack can work on various different operating systems. The DoS attacks are well identified and properly documented. Suitable measures must be taken.

Sniffer Attack: Sniffers is a device which capture network packets. It is a mixture of hardware plus software. These work by introduction the network interface into immoral mode. In normal situations, these machines on the network can 'listen' the traffic passing through, it will only respond to data addressed precisely to it. Yet, if the machine is in promises mode and hence it can seizure all packets and frames on the network. Sniffer collects passwords and many other confidential information. Sniffers are very difficult to detect as because they are the passive programs. Encrypted session provides an effective solution for this. Not all applications have combined encryption support.

Utilizing security hole in the system software: A hole is any defect found in hardware, software or policy that allows attackers to gain unapproved entrance to your system. The network tools can have holes are the Routers, Client and Server software, Operating Systems and Firewalls.

II. PROBLEM STATEMENT

Reserve Bank of India has set up an “Working Group on Internet Banking” to inspect different phases of Internet Banking. The Group had previously focused on major issues of I-banking:

- Technology and security matters
- Legal issues

Monitoring and administrative issues RBI has accepted the recommendations from them and will be handled in phased manner. Banks are given advise about the original report, for a detailed guidance on different issues. Internet must be secure to reach a strong level of confidence with both customers and businesses. This will help in issues that will help maintaining a strong level of public self-confidence in an open network environment include:

- Security
- Authentication
- Trust
- No repudiation
- Privacy

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- Availability

1. Risks Involved in Internet Banking: Internet banking risks consists of various risk related with credit, interest rate, transaction, liquidity risk, price risk, transaction risk, etc. Important risks involved in the Internet banking are:

Credit Risk Customers can contact from anywhere and can challenge for the uniqueness of their customers which is an important component in making good credit decision.

Liquidity Risk Increase in the deposit volatility by customers and maintains account uniquely on the basis of terms or rate.

Interest Rate Risk Interest rate risk comes from the timing of rate changes and the timing of cash flows repeating risk.

Foreign Exchange Risk is present when the currency difference takes place between two nations.

Compliance Risk is the risk when earnings come from capital, arise from destructions of, or not suitable with, laws, rules and regulations.

Strategic Risk Strategic risk arises comes from the present and probable impact on income or capital arising from similar business decisions, wrong execution of decisions, or absence of approachability to industry change.

Reputation Risk arises from the current and probable impact on incomes and capital arising from bad public view.

SSL encryption is used for the better security and privacy in the online banking. We will make a multifactor authentication technique which is a digital signer device with biometric authentication that not only provides a damage proof storage for the digital signature and also provides and. The system will improve the security of smart cards by evading its dependency on the computer to UI with the user, making it resistant to virus attack.

III. HYPOTHESIS FORMULATION

It is essential to highlight the fact that the Indian culture is different from the countries. Many researchers have predicted that the understanding and economic benefits of using the Internet has an important impact on the approval of online banking. Customers look for secure environment and hence it is important to build an environment for the safety for the online transaction to be carried out. Therefore, the following are looked:

1-Security and privacy has significant and important impact on adoption of Internet banking.

2-Trust has significant and important impact on adoption of Internet banking among customers.

3-Innovativeness has significant and important impact on adoption of Internet banking.

Security System in ATM

A. GSM based Technology

B. RFID Technology

C. Biometric Technology

The brief detail about these technologies are as follows.

A. GSM based Technology

Global System for Mobile Devices Communication is wireless network also it uses low power, low cost and easy to use. GSM behaves like a dial-up modem and it support AT commands defined in GSM standard.

GSM is in use by billion people across the world. GSM modem uses a SIM card and works on a contribution to a mobile operator. Computer is deployed for the communication of GSM modem to interconnect over the mobile network. GSM modem behaves like a mobile phone it is used to provide internet connectivity. modem is used for transfer and getting SMS. It has a serial, USB and Bluetooth connection. GSM network operated in diverse bands depend on the country, most commonly used GSM modem is 900 MHz and 1800 MHz bands. In America 850 MHz or 1900 MHz bands.

GSM, is used to provide security to ATM transaction. So that the transaction is safe and secured. The user wants to make the transaction; he'll have to enter the pin or the password. If the pin is correct an OTP is provided on the account holders GSM. The machine provides acceptance message from an account holder. Acceptance message is conveyed to the machine and the then machine allow doing further transaction or else machine denies the transaction.

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In this GSM based system whenever a user wants to make transaction he has to feed the pin number, if the password matches then a message will be send to corresponding account holder through GSM. The machine gets acceptance message from an account holder. If acceptance message is sent to the machine and then the machine allows doing the user further transaction or else machine denies the transaction.

B. RFID Technology

It is used for a security purpose. RFID is also used in various field like in library, for security purpose, E-passport. RFID Technology is used for safety purpose. RFID technology can be used to identify that a

Particular person is authorized or not for the access of that actual file. In this technology, the two most important things i.e. RFID tag and RFID reader is most important.

RFID tag are used in small device for data transmission.

a) Passive RFID tags

b) Active RFID tags

The Passive RFID tags been small and less costly; they have no on board power supply. They use the power from RFID reader. Active tags have an on board battery so it is costly. The series to read active tag is larger than the passive tag. The passive tag can work only when the RFID reader is available else it will be inactive.

Passive RFID tags is widely used for security purpose. Passive RFID tag contains a small microchip, which stores a unique Electronic Product Code number which is conveyed to the reader within RF range.

RFID tag is mostly used for authentication. After identifying authorized user, the user can enter correct PIN then 4- digit is sent to the registered mobile number through GSM operator. This 4-digit code is used for the further transaction to be completed. GSM based system requires more time to complete transaction than RFID-based technology. security offered by RFID technology is not safe and secure.

The disadvantage of using RFID are as follow:

1) RFID cards are tracked easily.

2) The message between tag & reader can interfere; this occurs when unapproved reader interrupts the tag.

3) RFID be virtualized in which illegal copy can be prepared and this copy can be used for any illegal purpose.

4) When RFID card is stolen, card can be misused.

5) RFID cards be disabled using jamming method and hence it stops working.

C. Biometric Technology

In biometric structure pattern recognition system is used in which is operated by acquiring the biometric data from users and then extracting this feature of biometric data, after extracting this feature compare with the stored set of the database.

Biometric technology is good option against security issue and it is more safe than RFID & GSM technology. Various technique is used in ATM security:

i. Fingerprint Recognition system

ii. Face Recognition system

iii. IRIS Recognition system

i. Fingerprint Recognition: When customers want to make transaction in ATM, finger is scanned. The customer has to input the 4-digit pin on the display screen. If the fingerprint matches, then the transaction will proceed else transaction is not granted.

ii. Face Recognition: In this system when the user wants to access their account user can enter the appropriate pin and then the face is matched from all sides. If all things matches, he gains access. Face recognition process is matching the extraction of face with already stored feature in memory. Face recognition technology is a very costly to secure the Application.

Disadvantages of Face Recognition:

1] 2D recognition is altered by change in light, the person hair and age.

2] Digital camera equipment is required for user identification and hence it is not popular.

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iii. IRIS Recognition: Human Iris is the internal and most sensitive part of the eye, covered by the eyelid and cornea. Iris is the coloured portion of the eye that covers the pupil. Pupil controls the incoming light the eye similar to the aperture of a camera. Middle portion of the iris is called the pupil. Features of Iris remain consistent throughout the year.

Iris technology has less chance of False Accept Rate (FAR) compared to other biometric like fingerprint, Face. Image capture tool is used to remove the matchless iris pattern from a digital image of the eyes, and protect it into a biometric pattern, and can be stored in a database.

Benefits of using IRIS Technology

1) high accuracy.
2) Unique
3) Stable
4) Unique pattern.

IV.CONCLUSION

This paper will be helpful for customers as an initial step in exploring views and outlooks on online banking. This research paper is focused mainly on acceptance of internet banking among customers and their view on security and privacy issues. More and more research is required to enhance the security in e-banking so that the customers are satisfied. Previous safety technologies are less significant and allowing fraud at ATM. It is essential to add some extra features in previous technology to increase ATM security. Using biometric system can be more secure and safe compared to RFID and GSM technology. Biometric method, other than fingerprint, face recognition IRIS technology gives high performance. In Master card and Visa card, the pin input should be included if we shop for less than 2000 amount also. Visa and Master cards have excluded this. This is easy for the customers; it saves time but what if card is lost? Money can be easily stolen from the account. IRIS scan should be included in ATM it would help in strengthening the security level.

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A LITERATURE SURVEY ON FACE RECOGNITION SYSTEMS USING CONVOLUTIONAL NEURAL NETWORKS

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ABSTRACT

The process of facial recognition is identifying a person based on their visual characteristics that makes them unique. Facial Recognition works on the basis of analysis and comparisons of facial features from a database of images. Face recognition is used in applications such as biometric artificial intelligence. From miniscule applications such as protecting the data on our smartphones to important security applications such as identifying criminals this technology is essential in today's world. This technology is achieved using deep learning and CNN's.

Deep learning simplified is a subcategory of machine learning and essentially one of its algorithms. The models in deep learning are based on neural networks. Deep learning facilitates us with the ability to develop robust biometric face recognition software. CNN's are deep neural networks that include artificial neurons. These neurons are trained using preset rules and these rules determine whether will provide an output when given several inputs. CNN's start to learn and make future decisions on the basis of what they encounter and in the cases of face recognition software, the faces they encounter. A literature survey on the use of CNN's in face recognition is presented in this paper.

NOMENCLATURE Deep Neural Networks (DNN), Convolutional Neural Networks (CNN), Artificial Intelligence (AI)

1. INTRODUCTION

"If We Want Machines to Think, We need to teach them to see."[1] – Fei-Fei Li DNN's have achieved several milestones in numerous competitions involving pattern recognition. [2] This makes them suitable technologies for tasks such as face recognition. A face is a multidimensional object and provides us with complex visual stimulus for which the development of a process proves to be a challenging task. There is a requirement for personal identification in access control which has given rise biometrics. Biometrics has observed a massive growth in technological advancement as the need for access and security becomes greater since the confidentiality of data is growing. There has been fast-paced advancement in AI which has revolutionized face recognition. Face recognition is non-intrusive and is a highly accurate biometric technique to identify a person. Face recognition can also be easily used without the knowledge of the individual. Modern detectors can easily detect close up frontal images, however problems rise such as the uncontrolled face detection problem. This problem includes challenges such as changes in the pose, unrecognizable expressions, and extreme amounts of light on the detector which can cause variations in the person's appearance and can degrade the integrity of the detector. The difficulties in face recognition stem from two categories: the difference in human faces in messy backgrounds and the large set of face positions and sizes. The latter one further imposes a time efficiency requirement. [3]

2. A LITERATURE SURVEY

CNNs are a type of feed-forward neural networks. Convolutional Neural Networks include several layers through which data input is received. These layers are organized in an orderly structure and include convolutional layers, a pooling layer, a fully connected layer and a layer for loss. Every layer has its own functions and as the images progresses from layer to layer the analysis becomes more abstract. This translates that the first layers of the neural network react to different stimuli such as oriented fields, change in light intensity, etc, while the layers ahead concentrate on the identification and recognition of objects and make independent and intelligent decisions about its importance.

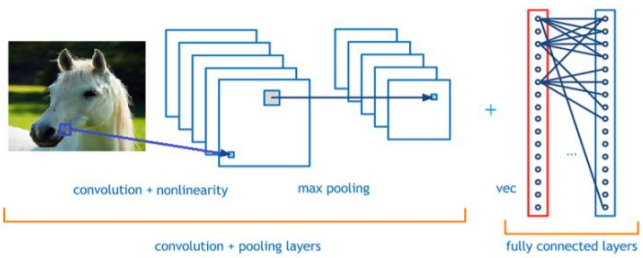

Figure-1: Design of a Traditional CNN [4]

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2.1 LAYERS OF A CNN

2.1.1 THE CONVOLUTION LAYER

This layer is the most at work. Convolution is officially defined as the integral that shows the amount of overlap of one function as it is moved across another function. [5] This scenario includes a kernel being moved across an input image. A kernel is a matrix of values created to detect different features. [6]

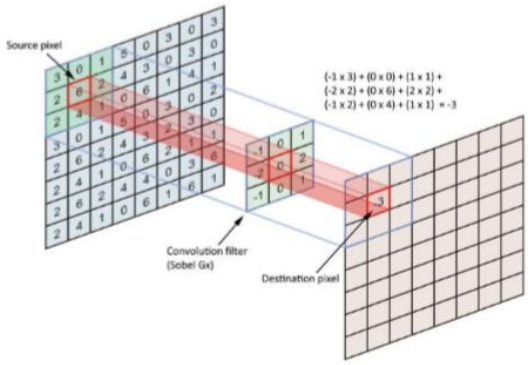

Figure-2: A kernel analysing an arbitrary picture [7]

The kernels are made to identify detailed features of the input such as edges. When the convolution encounters a local maximum that position is identified as an edge. Different kernels are required within the CNN in edge detection. Depending on their values, kernels are used to identify differently oriented edges. [6]

2.1.2 THE POOLING LAYER

The pooling layer essentially shrinks the image stack by picking a window, striding over filtered images and then taking the maximum value from each stride. The 4 steps are:

- Select the size of the window (usually 2).
- Select stride (2).
- Run the window over the filtered images.
- Retrieve the max value.

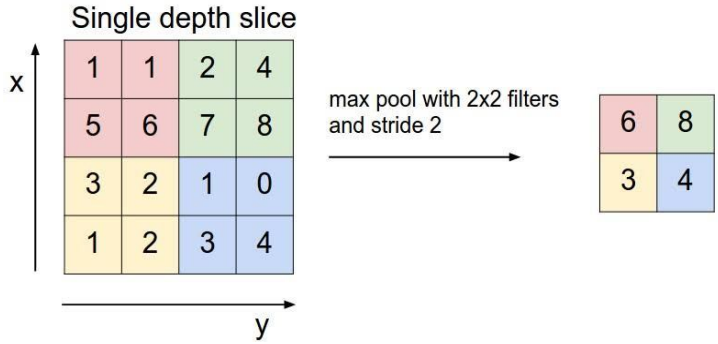

Figure-3: Max Pooling [8]

2.1.3 THE ReLU LAYER

In the ReLU (Rectified Linear Units) layer a stack of images becomes a stack of images with no negative values. [8] ReLU is a classification function in deep neural networks (DNN).This layers is used as an activation function in deep neural networks, with Softmax function used as the classification function. Mostly used only in the output layer, the Softmax function is to represent probability distributions of all the possible outcomes generated by the CNN.

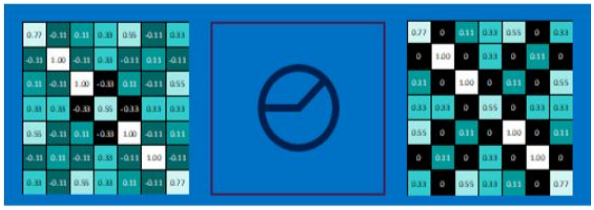

Figure-4: ReLU Layer-Negative to Non Negative [8]

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2.1.4 FULLY CONNECTED LAYER

The fully connected layer handles the task of merging all the data processed from all the layers into one final output. The FCL produces inner products. All neurons in the full connected layer are connected to all the other outputs provided by the previous layers. The fully connected layer analyzes all the data provided at the same time without the need of a convolution function. The task of this layers is to use these features for the classification of input images into separate classes based on the training images. [4]

2.2 LEARNING IN A CNN

Convolutional Neural Networks learn using what is known as stochastic gradient descent and back propagation. One of the algorithms used for learning is backpropagation. The goal is to make the predictions of the CNN match the ground-truth (original input image) by minimizing a cost function. [6] The CNN must be able run in both a feedback and feed forward configuration.

During the forward run the errors are collected and processed by the loss layer. Error are reduced with the help of stochastic gradient descent. Stochastic simply means that the training images are fed through the network in small, random subsets. [9]

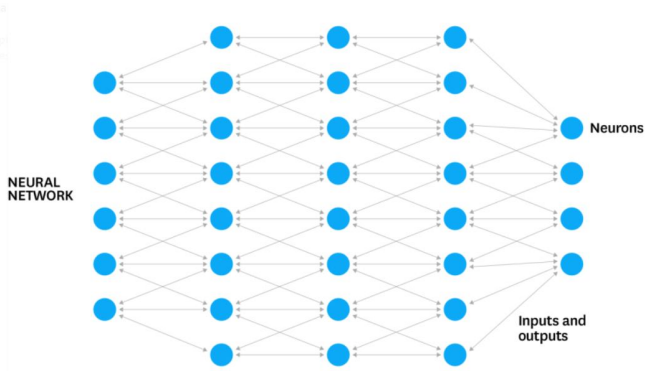

Figure-5: Neurons in Deep learning Networks [10]

2.3 FACE RECOGNITION

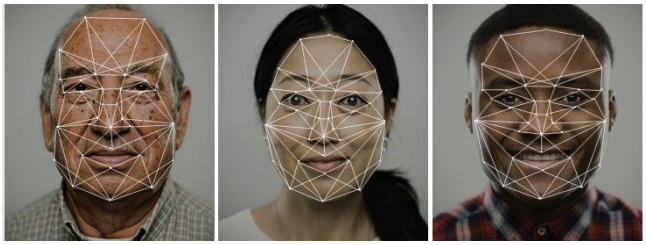

Figure-6: Mapping [10]

The very first step that takes place is the recognition of a face in the image and highlighting the following area. The software involved in this process can use various algorithms such as determining the similarity of proportions and skin colour, the selection of contours in the image and their comparison with the contours of faces, the selection of symmetries using neural networks. [10] However an effective method is the Viola-Jones method. This method can be used in applications that involve real-time computing, the system can analyse images even when rotated by a factor of 30 degrees.

The gathered data is then compared with the results. Even after the face is detected the algorithm continues to track the region to determine the optimum angle and the quality of the image. Correlation and motion vector algorithms are used for the constant detection.

Once the region is finalized by the algorithm the system will begin the process of face recognition by comparing the region with the existing database. The program will attempt to locate reference points that make up the individual features of a person's face. For accurate detection the program will locate a minimum of 100 points.

The most important measurements for face recognition programs are the distance between the eyes, the width of the nostrils, the length of the nose, the height and shape of the cheekbones, the width of the chin, the height of the forehead and other parameters. [10]

After this if the analysed data matches the data in the database then the person is identified.

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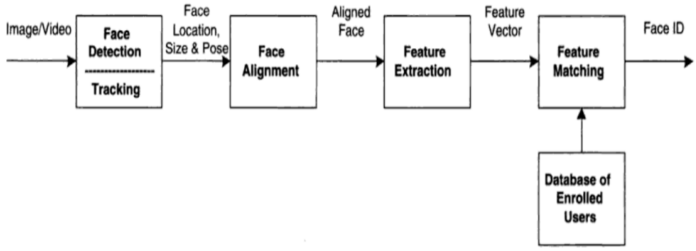

Figure-7: Face Recognition Process flow [10]

2.4 CNN BASED IMAGE RECOGNITION

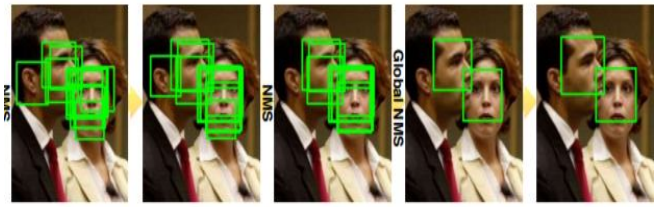

Figure-8: CNN Image Recognition [11]

The demand for CNN's is growing rapidly when it comes to image recognition. Localization is performed by presenting each pixel with its neighborhood to a neural net which is able to indicate whether this pixel and its neighborhood are the image of the search object. [12] However in the current scenario CNN's are being used to identify specific objects which means that the network processes the given image and tries to locate or identify special features in the input image such as other people, obstacles, etc. To help the CNN in classification of objects in the given image the CNN must be trained first through several test images. The general hierarchy for the identification of an image is as follows: pixel → edge → texton → motif → part → object. [6] Pixels and edges are just as generic as one might expect. Textons are micro structures and forms the basis of early attentive visual identification. Textons are small patterns which are merged into motifs. Motifs are sections of repeating patterns that can later be combined into larger image parts. These parts group forming a whole image to be identified. [6] Image classification begins with the division of the input image into sections/pixels. The input then passes through the CNN for analysis. The kernels in the convolutional, pooling, ReLU and full connected layers identify special features in the given image. The matrix of values becomes more detailed and accurate with the progression of the layers.

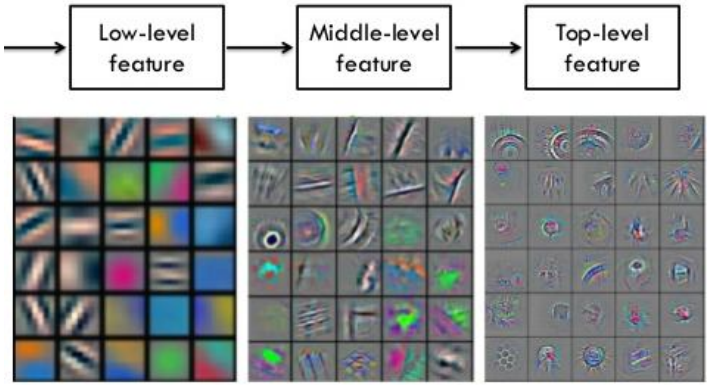

Figure-9: The Kernel Becomes more Intricate with each Layer [13]

Each grid square in figure 9 represents one kernel which is passed over each pixel of the image. The result is a representation of the original ground-truth image. [6]

In the current scenario most CNN's are made to identify specific objects such as faces, wildlife, handwriting, etc. For the CNN classification to work well and efficiently in face detection systems the network must be able to classify various objects.

2.5 OBJECT DETECTION

Object detection is a technique through which bounding boxes are created. Bounding boxes surround the objects detected in the image. A machine overtook human level performance in the ImageNet classification challenge for the very first time in 2015. This is far more complex and several concepts such as super human performance

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through deep learning is still not clear and remains puzzling. The problem arises when identification of several objects is needed at once with the class and the number of instances. Surpassing this problem in an efficient way could be a major breakthrough in the development of face recognition systems.

3. CONCLUSION

The multi-layered trainable structure of the CNN's puts them a class above other neural networks. They include parameters which can be varied to best fit the intended purpose. The neurons are constantly improving the accuracy of their outputs by learning from each piece of input data. [6] This is specifically very useful in the application of face detection systems to differentiate both the existence and distance of obstacles in front of the face. CNN's are the backbone in face detection systems and will continue to become more and more advanced.

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RESEARCH ON POLITICAL PROMISES

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ABSTRACT
This research is based on political promise. All politician promise to citizens but they do not complete it. As we know that politician is the core of any country. Any country is run by a leader. If that politician is not truthful then he can't handle situation of that country. Due to which the economy of that country will fall very fast. Therefore, we should choose a good leader for the development of the country. Everything above depends on the leader's mind. If that leader is liar makes false promises to the citizens there, and the citizens come under his influence and vote for him. Despite being a well written leader if the leader is liar, then his study has no meaning. In this research paper we will set up a criterion. This will be based on the promise of the leader's voting time. If a leader crosses that criterion, he will be eligible to stand in next-time voting, or else.

INTRODUCTION
I want to remove corruption form my country so I have decided to publish my research Paper, because people doesn't know their power of vote. Only when people know their rights can they choose the right leader for the development of the country. There may be a rule in it that whenever a leader submits his proposal letter at the next time of voting, then they should complete their work at 35%. If he completes that promise, then in the next voting he/she can fill the paper. The pro – people make false promises at the time of voting and people come to their enticement and vote for them. And after that, they do not do any such thing for the people of that place, so that people do not have any meaning in their valuable vote. So when this is implemented in the constitution, then people will make as much promise as they can fulfill. And in this way we can reduce corruption from our country and this will be a small beginning for the development of our country.

INTRODUCTION OF MATERIAL
In this research paper, I will prepare a set of questions that the leaders would do at the time of voting. And for this a backend will be required which stores the leaders promise with safe and security. In this research paper, we can create a Google Form and we can send that link to all our friends if we want to know about the promise of a leader at Lok Sabha level. If a leader works at the regional level or has been elected as a leader, then how many promise he fulfilled that we can find out the people of that area by sending a Google Form. The people of that area will fill that Google Form and we can make a good algorithm by calculating how much promise the leader has fulfilled. If that leader has also done at least 35 % of his promises, then that leader can get his name registered for voting again if not, that leader cannot fill his form in the next 5 voting. Yes, even if he had won the **Lok Sabha** elections, even then he did not fulfill the **35 % promise** he made so he can fill the post as a leader for voting of **Rajyasabha and Vidhan Sabha But** he cannot fill his name in the next 5 voting in the Lok Sabha elections. In the form of Google, we can also make a thumb impression for verification so that it will be ensured that whatever response has been received, it is received by that personal person.

WORKING PRINCIPLE
And through this Google form, we can also find out which leader people like more. This Google form will be passed by the Tehsildar of that area because all the people who have their voting card have their registered **Mobile no.** And he will send this ready Google link to the registered mobile number of all the people of that area. And the registered mobile number from which no answer came, the team of some people will go to their house and will motivate them to fill that form. Because the next time the leader is going to be selected, he is also very dependent on that Google form in voting. So it is the duty of every citizen to vote, it is the duty of everyone to fill this Google form without any pressure.

When the public will give the right decision, only then the right leader will fill the ballot next time in voting, otherwise the same corrupt leader will come to handle that area again. And due to which development has not been done in many areas till date, because the same corrupt leader comes again and again. This process is different from voting because when voting time comes So the leader visit's the homes of everyone and distributes the money and sometimes even threatens. When the vote is counted, the leader comes to know from which constituency he has not got the vote. And after winning, he hurts that lovely public because he knows that next time he will come again because he has power. Using this technique, we can save our country from harm. When voters go to vote, they have a lot of options, but some of them are corrupt. If this proposal is passed, then

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with the help of public, we can filter those people before voting who used to win the corrupt people through money or threatens.

THE RULE OF THIS RESEARCH PAPER WILL BE SOMETHING LIKE THIS

Rule1. When this form is filled, there will be no change in it again and public cannot fill this form again. And this form will not sent to everyone at same time, the entire public will be sent at different times by the Tahsildar. It will be benefits by this rule that no leader can ever threaten someone's home because that leader will not know when the form has been filled by anyone.

Rule2. When the research paper is filled by any citizen, then he cannot take a screenshot of this form. This will ensure the security of that form. No citizen can take money from a leader to fill that form in his favor.

Rule3. And when this research paper form will be sent to the public of that area by the Tahsildar office then that form will have to be filled by that citizen for the first time attempt. When we send a **Whatsup** message to anyone then we find a signal of double tick in blue color means that message has been read by receiver, we can make a rule of like this, when message is sent by sender then after reading this message, receiver will have to send a response within a 5 min. If they send a response within a 5 min then it will be store in database otherwise.

Rule4. The Team of Tahsildar office will inspect of this problem, why the research paper form is not filled by them. And the team of officer will give the understandable thinking and will tell them responsibility. This will be responsibility of citizenship like a voting.

Rule5. In this rule, when the officer's team will come to people's home So when this form will be filled by the citizen there, then a video clip will be made by the officer. So that it can be ensured that this form is filled without pressure from the officer. And until once the form is not sent by the officer, before that the officer cannot come to the home to fill the form. If they come before filling the form, then after filling the form, a link will automatically come for filling another form, which will be in the form of feedback. Those who fill the form once will get a link again after a few days, which will not be available. After clicking, citizen will give their feedback. In which only Yes or No have to ensure that the form is filled without any pressure. And this will be the final submission; we can apply this rule in this form. After a few days of the form or without the schedule time, this form will automatically be sent to number given the first time response.

Rule6. With this rule, we can reduce corruption because when these rule will be followed, there will probably be no leakage information from anywhere. Because the submission made by the public will not be visible even in the backend as there will be store in the information encrypt format. The response of the form which will be filled by the public will be direct used in algorithm for good output. So that information will not be locked from anyone. Only the output can be seen by the administrator but not the public response. If all research paper rules will be followed by our country then we can reduce at least 35 % corruption from our country so we can say by this research paper, we will have saved our country from corruption and all bad news which are not good for any country Because all country are driven by that country leader so at least that country leader must be educated and good person without any cases.

In our country, most of the leaders are corrupt and not educated but also they win in vote because they have money and power of threat. So when this rule will be passed from our Constitution then by this rule we will be saved our country by that man. We know that No leader will mind the passing of this rule because the other party can say that when you are not wrong then then why are you afraid of this rule. So there will be no problems for this rule to be passed. And we will get a qualified and good leader.

Rule7. If we follow then officer directly communicate with that person who is not able to make a voter like an old man and physically handicapped. Because we know that if anyone wants to make a vote they have to go in voting booth because voting bucket cannot bring near of them. This is rule of India so when this rule will come in focus even if public could not make a vote if they fill that google form they will support of our country knowingly or unknowingly. So the report of google form is equally important to voting because when we vote so support our country like this when we fill this form then we will support our country as well as voting. When officer send a link to public of that area where voting is going to start, but they do not find any response of some public then here can be other reason. That person can be poor they have no money to brought a smartphone, when officer will go that public home they will take response of that person. Here no fault will be that man because they have no money to bring a smartphone. So In this research paper, officer responsibility is more effective. So I have thought like this. In this research paper we can find out how many promises are done by leader and in that how many promises are completed by leader.

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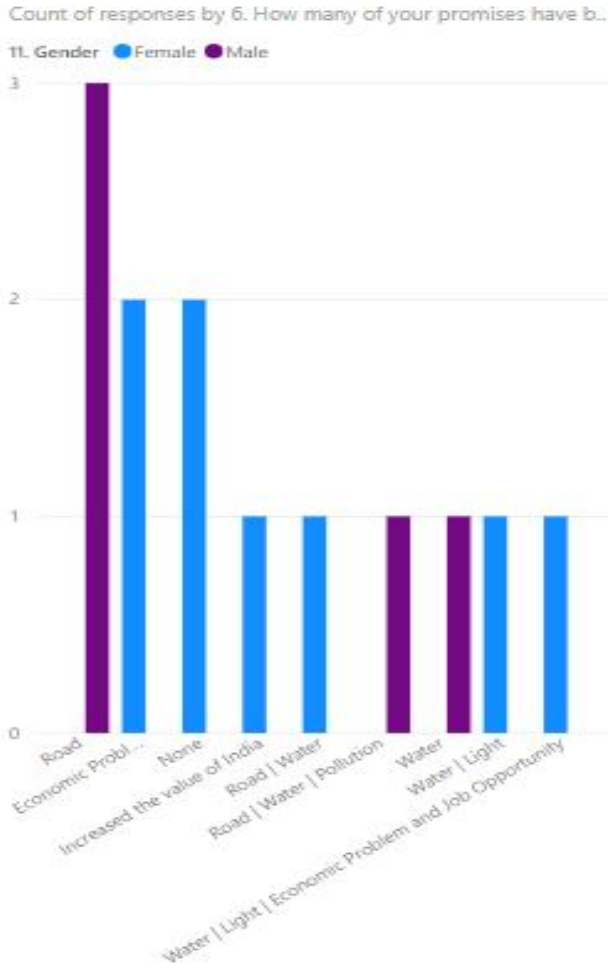
And whose leader is more popular in public compare to their competitor.

Observation1: How many promises have been fulfilled by our leader, it has been taken by research paper form.

So by this we can assume that our leader is liar or truth.

6. How many of your promises have been fulfilled by your leader?	Female	Male
Road		3
Economic Problem and Job Opportunity	2	
None	2	
Increased the value of India	1	
Road | Water	1	
Road | Water | Pollution		1
Water		1
Water | Light	1	
Water | Light | Economic Problem and Job Opportunity	1	



Observation2: Our leader is educated or not, how response by Male and female and our leader has ever changed the party or not also can be assumed.

If our leader is not educated, how we can say that they will handle the country or region situation?

9. Is your leader educated?, 11. Gender	No	Yes
Yes, Female	124	
Yes, Male	46	
No, Female	45	
No, Male	45	24

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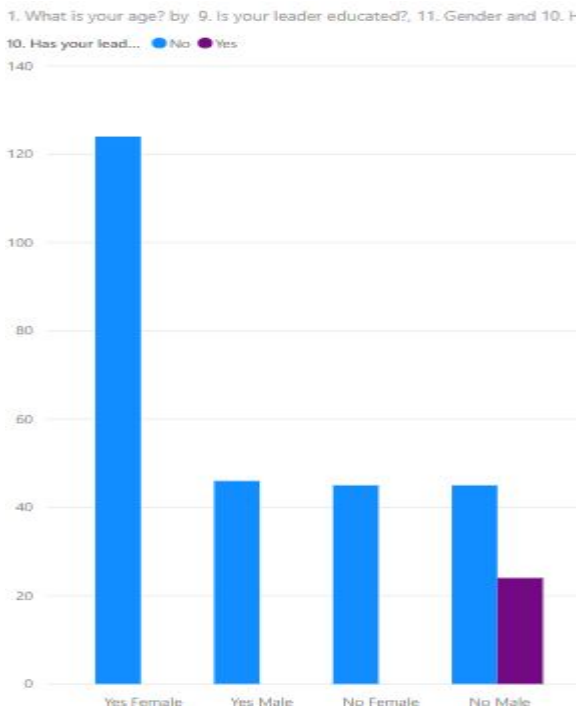
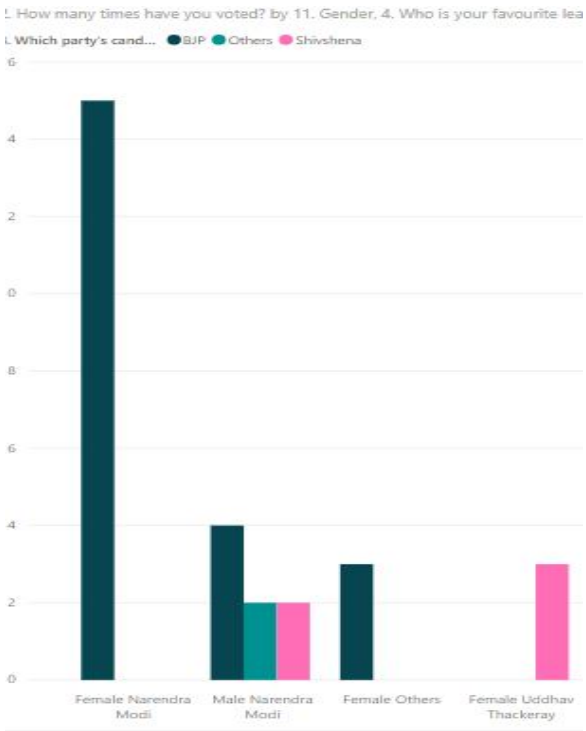


So this research is very important to select right leader in voting if a leader is good person so we can assume, there is more chance of being the truth leader.

Observation3: Here we can find out how many male and female support which party leader and we can got good leader in that region or country.

So, here numeric values are showing the how many times male and female have voted to which party. And we can assume who will be winner of next voting time.

11. Gender, 4. Who is your favourite leader in your region?	BJP	Others	Shivshena
Female, Narendra Modi	15		
Male, Narendra Modi	4	2	2
Female, Others	3		
Female, Uddhav Thackeray			3



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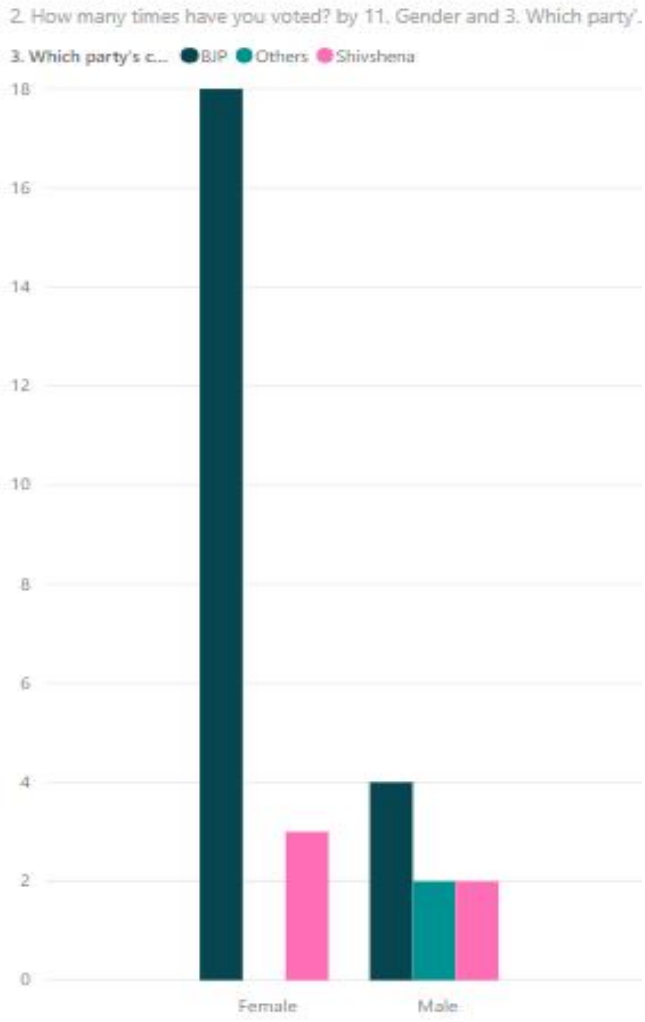
Observation4: By Help of this we can assume which party is popular in which gender.

Like this, here BJP is more popular in Female compare to Male and we can also assume which party polarity in public (Male and Female), Here BJP is more Popular to other party like- Shivshena and other.

11. Gender	BJP	Others	Shivshena
Female	18		3
Male	4	2	2

Below, numeric value represents how many male and female support which party.



Observation5: Here we find out what is response of their citizen of country of citizen after complete the voting process. So we can assume how much popularity has been reduced by popular party.

So, we can find out how many vote balance loss of which party. So we can give this report to that party to improve their performance.

11. Gender, 7. Did they fulfill this promise?	BJP	Others	Shivshena
Female, Yes	12		
Female, No	6		3
Male, No		2	2
Male, Yes	4		

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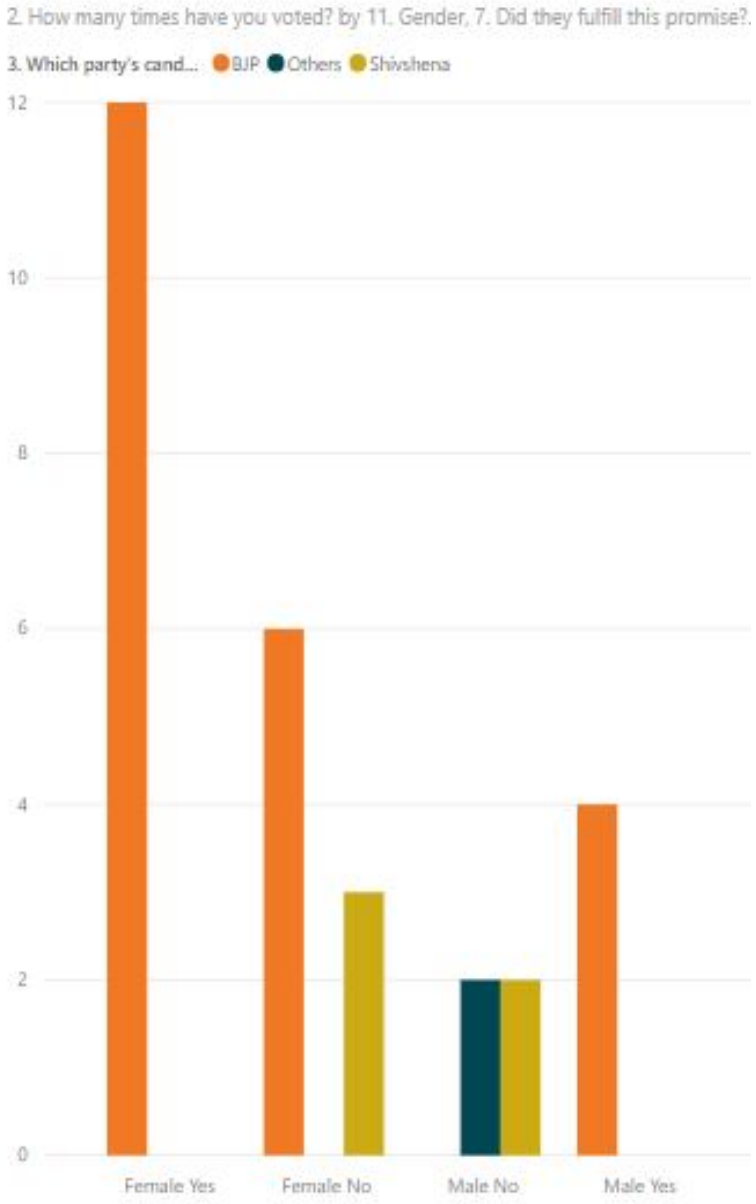

So, we should fill this type of survey because by help of this we can find out the survey reports will provide good output, because this in type of survey we should make a part.

Observation6: Here we can see the hope of public because some people accepted that BJP has not fulfilled their promise but they want to see that party in voting again.

So, we can say that how much believe of public of their leader like a P.M. Narendra Modi.

11. Gender, 7. Did they fulfill this promise?, 8. Do you want to see your leader standing again in voting?	BJP	Others	Shivshena
Female, Yes, Yes	12		
Female, No, No	5		
Female, No, Yes	1		3
Male, Yes, Yes	4		
Male, No, No			2
Male, No, Yes		2	

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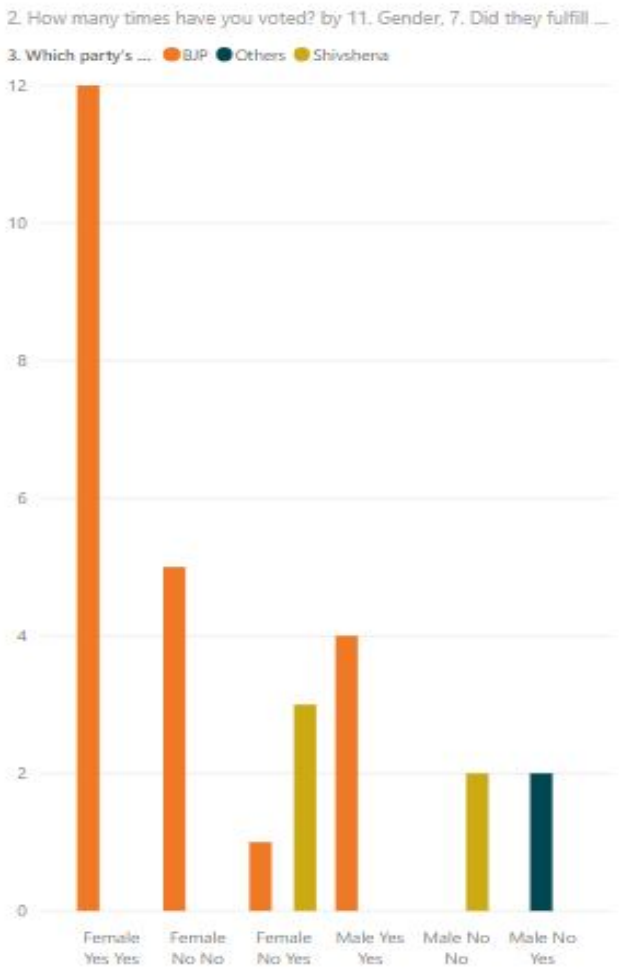

They accept Modi has not completed his promise, but also he wants to see in voting again. So all leader must fulfill their promises which have accepted at voting time.

Observation7: In this visualization, we find out Selected party has fulfilled their promise or not and which type of promise has been done by selected party in voting, which will be in the power of that country or any particular state. Here we got some people accepted that economic; water, light and value of India are increased. Compare to last few years.

11. Gender, 7. Did they fulfill this promise?, 6. How many of your promises have been fulfilled your leader?
Female, Yes, Economic Problem and Job Opportunity
Female, No, None
Female, No, Road | Water
Male, Yes, Road
Male, No, Road
Male, No, Water
Female, No, Economic Problem and Job Opportunity
Female, Yes, Water | Light
Female, Yes, Water | Light | Economic Problem and Job Opportunity
Male, Yes, Road | Water | Pollution
Female, Yes, Increased the value of India

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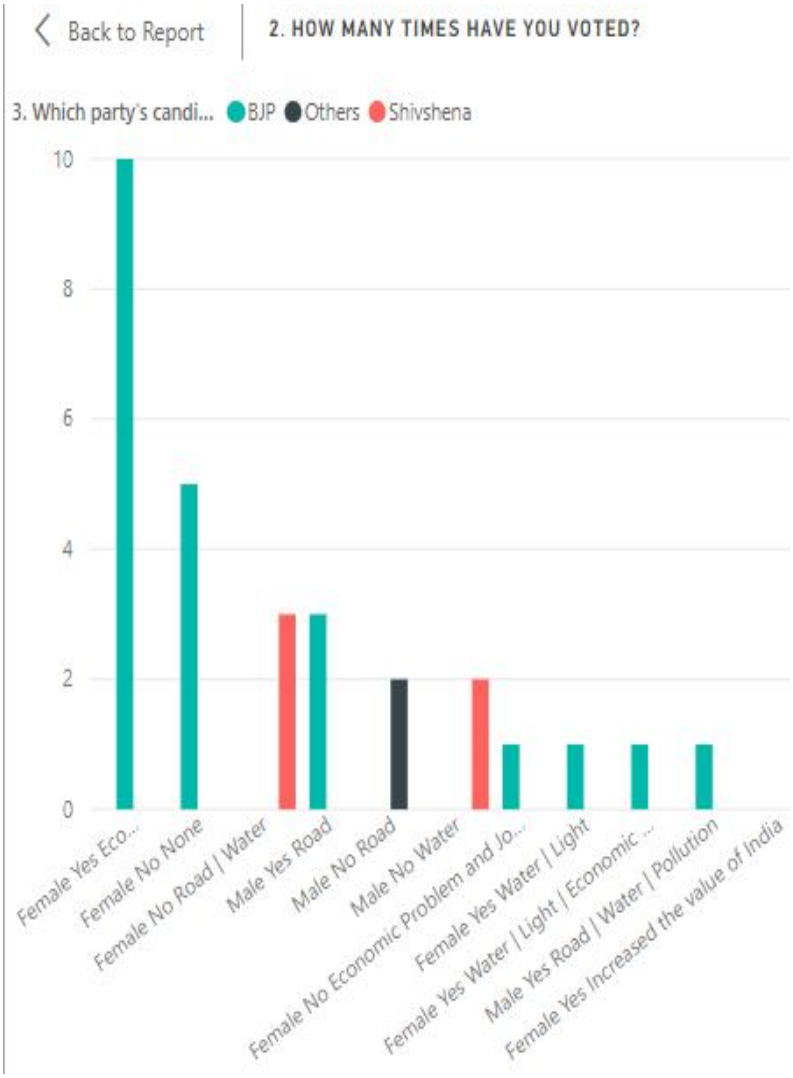

Observation8: Here we got that how much people like to Narendra Modi because they do not know Shree Narendra Modi how many times applied in voting but also in favorite leader list P.M. Modi name is more times compare to other leader.

So, using this form or improve this form we can find out, before voting which leader is more popular to their competitor. So here we can also apply these visualization techniques.

5. How much time have your leader applied in voting?, 11. Gender, 9. Is your leader educated?, 4. Who is your favourite leader in your region?
between 2 to 5, Female, Yes, Narendra Modi
less than 2, Male, No, Narendra Modi
between 2 to 5, Female, No, Others
less than 2, Female, Yes, Uddhav Thackeray
less than 2, Female, Yes, Narendra Modi
More than 5, Male, No, Narendra Modi
less than 2, Female, No, Narendra Modi
less than 2, Male, Yes, Narendra Modi
More than 5, Female, Yes, Narendra Modi
More than 5, Male, Yes, Narendra Modi

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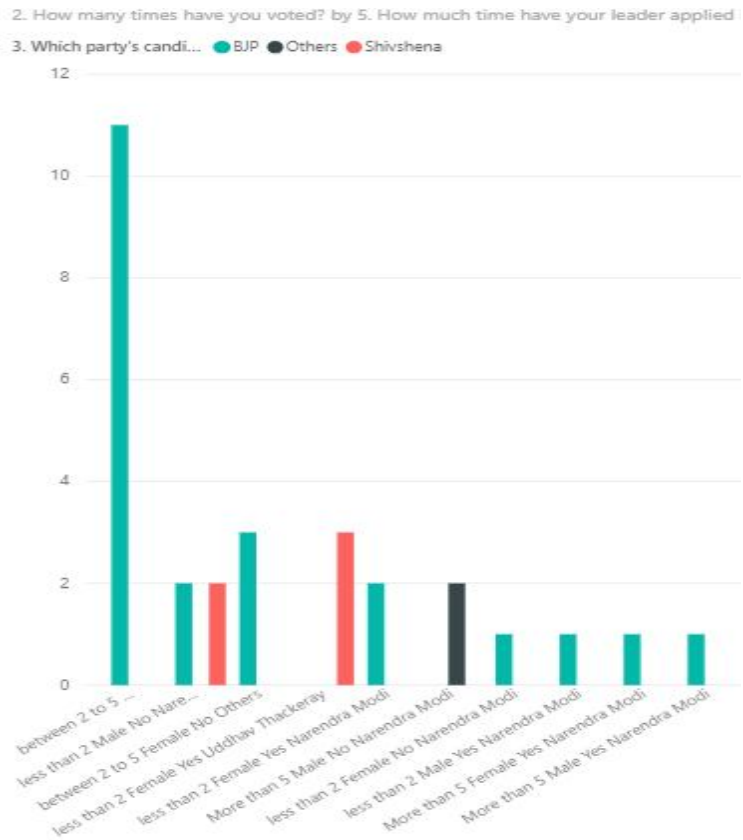

CONCLUSION

After all of the data wrangling and data analysis I conclude that the liar promise in India is increasing and youth of India is getting the most of it.

While I have forward my link in what sup and find that popularity of P.M. Narendra Modi is more than compare to other leader. Looking at which public have voted first and second time, who are youth, have voted to Narendra Modi or we can say that popularity of Narendra Modi is more inside in mind. Education is a great impact on the liar promises. The more the person is educated less likely the person have liar promise. Because they do not fulfill their dream so they want to earn more money doing corruption. According my research I got Females is more love BJP party. So we can say that popularity of BJP party is higher than other party. Many person (Female and Male) do not know how many times Modi has applied in voting but also they love them and vote for BJP party according Modi speech. Here I am not doing evil of the party, but I want to tell you that many people are still in the uneducated. They vote to any party without thought our future. So I want to spread awareness through this form. When people will know, what is responsibility of that person in country, and then he will vote to right person. Because a leader is chosen in any country then a lot of people behind its voting is right of all person. And filling the google form also should be a right of all people with honesty because behind this report, algorithm will make a more reports, on this basis. Then on the basis of reports we can make output, which will be decided who will be the next leader of that area or country so please fill the all types of reports form. This google form will be very different because here we will be saved all details of report receiver, So on this basis we can say that this google form is secured. Without any tension anyone can fill this google form for our better tomorrow.

RESULT

1. We can provide the popularity of leader.
2. We can provide, how many promises had been done by which leader and how many promise have been fulfilled by that leader.
3. We will make algorithm that will accept all types of information and competition of some process will generate the output. Whose leader are not eligible to apply in voting for coming voting
4. We have seen more leader complete their some promise at upcoming because they know if I did not complete their promise then public will not do a vote for them. So he fulfilled some promises before voting. But When this rule will be apply in our country, leader have to complete their promises from

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beginning because google form will be sent to all person mobile number automatically. Here it has automatic because officer can be greedy and leak the produced timing of that link.

5. If any leader found that completed 35 % less work of their promises then they can no apply in that time for voting. If they want then they will have to wait next time voting.

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MANUSCRIPT SUBMISSION

GUIDELINES FOR CONTRIBUTORS

1. Manuscripts should be submitted preferably through email and the research article / paper should preferably not exceed 8 – 10 pages in all.
2. Book review must contain the name of the author and the book reviewed, the place of publication and publisher, date of publication, number of pages and price.
3. Manuscripts should be typed in 12 font-size, Times New Roman, single spaced with 1" margin on a standard A4 size paper. Manuscripts should be organized in the following order: title, name(s) of author(s) and his/her (their) complete affiliation(s) including zip code(s), Abstract (not exceeding 350 words), Introduction, Main body of paper, Conclusion and References.
4. The title of the paper should be in capital letters, bold, size 16" and centered at the top of the first page. The author(s) and affiliations(s) should be centered, bold, size 14" and single-spaced, beginning from the second line below the title.

First Author Name1, Second Author Name2, Third Author Name3

1Author Designation, Department, Organization, City, email id

2Author Designation, Department, Organization, City, email id

3Author Designation, Department, Organization, City, email id

5. The abstract should summarize the context, content and conclusions of the paper in less than 350 words in 12 points italic Times New Roman. The abstract should have about five key words in alphabetical order separated by comma of 12 points italic Times New Roman.
6. Figures and tables should be centered, separately numbered, self explained. Please note that table titles must be above the table and sources of data should be mentioned below the table. The authors should ensure that tables and figures are referred to from the main text.

EXAMPLES OF REFERENCES

All references must be arranged first alphabetically and then it may be further sorted chronologically also.

- **Single author journal article:**

Fox, S. (1984). Empowerment as a catalyst for change: an example for the food industry. *Supply Chain Management*, *2*(3), 29–33.

Bateson, C. D.,(2006), 'Doing Business after the Fall: The Virtue of Moral Hypocrisy', Journal of Business Ethics, 66: 321 – 335

- **Multiple author journal article:**

Khan, M. R., Islam, A. F. M. M., & Das, D. (1886). A Factor Analytic Study on the Validity of a Union Commitment Scale. *Journal of Applied Psychology*, *12*(1), 129-136.

Liu, W.B, Wongcha A, & Peng, K.C. (2012), "Adopting Super-Efficiency And Tobit Model On Analyzing the Efficiency of Teacher's Colleges In Thailand", International Journal on New Trends In Education and Their Implications, Vol.3.3, 108 – 114.

- **Text Book:**

Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2007). *Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies* (3rd ed.). New York: McGraw-Hill.

S. Neelamegham," Marketing in India, Cases and Reading, Vikas Publishing House Pvt. Ltd, III Edition, 2000.

- **Edited book having one editor:**

Raine, A. (Ed.). (2006). *Crime and schizophrenia: Causes and cures.* New York: Nova Science.

- **Edited book having more than one editor:**

Greenspan, E. L., & Rosenberg, M. (Eds.). (2009). *Martin's annual criminal code:Student edition 2010.* Aurora, ON: Canada Law Book.

- **Chapter in edited book having one editor:**

Bessley, M., & Wilson, P. (1984). Public policy and small firms in Britain. In Levicki, C. (Ed.), *Small Business Theory and Policy* (pp. 111–126). London: Croom Helm.

- **Chapter in edited book having more than one editor:**

Young, M. E., & Wasserman, E. A. (2005). Theories of learning. In K. Lamberts, & R. L. Goldstone (Eds.), *Handbook of cognition* (pp. 161-182). Thousand Oaks, CA: Sage.

- **Electronic sources should include the URL of the website at which they may be found, as shown:**

Sillick, T. J., & Schutte, N. S. (2006). Emotional intelligence and self-esteem mediate between perceived early parental love and adult happiness. *E-Journal of Applied Psychology, 2*(2), 38-48. Retrieved from http://ojs.lib.swin.edu.au/index.php/ejap

- **Unpublished dissertation/ paper:**

Uddin, K. (2000). A Study of Corporate Governance in a Developing Country: A Case of Bangladesh (Unpublished Dissertation). Lingnan University, Hong Kong.

- **Article in newspaper:**

Yunus, M. (2005, March 23). Micro Credit and Poverty Alleviation in Bangladesh. *The Bangladesh Observer*, p. 9.

- **Article in magazine:**

Holloway, M. (2005, August 6). When extinct isn't. *Scientific American, 293*, 22-23.

- **Website of any institution:**

Central Bank of India (2005). *Income Recognition Norms Definition of NPA.* Retrieved August 10, 2005, from http://www.centralbankofindia.co.in/ home/index1.htm, viewed on

7. The submission implies that the work has not been published earlier elsewhere and is not under consideration to be published anywhere else if selected for publication in the journal of Indian Academicians and Researchers Association.

8. Decision of the Editorial Board regarding selection/rejection of the articles will be final.