

## UNDERSTANDING NEW MEDIA AND ITS APPLICATIONS

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New Media is a generic term which includes all that concerns interactive, dense, compressible forms of digital media with absolute quality for networkable manipulation. A few examples being internet linked social media, websites, multimedia enabled videogames, DVDs, CD-ROMS or any other forms of hyper text with or without animation forging an augmented reality.

The concept of new media relies on anytime access of the content from anywhere using any digital device, which codifies interactive user feedback and encourage creative participation. New media entails real time generation of new and unregulated content, from television programmes (only analog programmes), feature films or other forms of print media publications such as books, magazines or journals to all other digital extensions of the print media through interactive mechanism. The online encyclopedia is full of texts, images, video clips linked to websites and other types of digitized texts. Face book is another participative

social media where everyone contributes to everyone else and also to oneself and his/her associations in general. Face book is also used as a platform of contributors connected to each other in all possible ways by use of texts, pictures, videos and other websites. Wikitude too is an example of augmented reality through digitised media, displaying information about surroundings of a user in a mobile camera view--- a 3d modelling, location based augmented reality.

### **HISTORY**

The conceptual synthesis of computing and radical art emerged from 1960s. In 1980s; Alan Kay and his colleagues of Xerox PARC gave the computability of personal computer to the individual rather than a large organization. In late 1980s and early 1990s, there emerged a distinct kind of parallel connection between social changes and computer design. Many theorists on media try

to decode a unique relationship of media with that of episteme. Marshall McLuhan's famous tenet in *Understanding Media: The Extensions of Man* (1964) that "the medium is the message." refers to the conceptual domain of the content rather than the actual influence of human experience that media can have on our social realm of life.

The emergence of new media is a post-1980s phenomena when the use of radio and television became quite popular with the advent of analog broadcast models. Since then, there has been a great transformation of media with the best possible utility of digital technologies such as internet and videogames. So much so that the use of digital computers has radically changed the old media, thereby giving way to digital television and online publications, along with significant innovative attempts to convert the traditional platforms of the old media through image manipulation and Adobe Photoshop in addition to other desktop publishing tools.

Andrew L. Shapiro (1999), a new media expert rightly points out that "emergence of new, digital technologies signals a potentially radical shift of who is in control of information, experience and resources" (Shapiro cited in Croteau and Hoynes 2003:322). So does W. Russell Neuman (1991). He declares that the "new media" have innovative technical capabilities owing to the evolution of a universal interconnected network of audio, video, and electronic text communications, which in times to come will blur the distinction between interpersonal and mass communication and between public and private communication" (Neuman cited in Croteau and Hoynes 2003: 322).

Commenting on the possible effects of the New Media, Neuman suggests that the latter (new media) will certainly:

- Change the meaning of geographic distance.
- Allow a radical increase in the volume of communication.
- Enhance the possibility of speed of communication.
- Create opportunities for interactive communication.
- Allow overlapping and interconnectivity of other forms of communication.

The democratization of the postmodern public sphere created new avenues for interaction in the

internet among the public on social structures without leaning on to any sort of hierarchical debate conditioned by the traditional media. This was advocated by the scholars on media studies such as Douglas Kellner and James Bohman. However, there is a role for the multinational telecommunication corporations who wield terrific influence globally in the emergence of new media. Ed Herman and Robert Mc Chesney point out the same about these corporations who may have absolute influence on the decision making process at the highest levels of the government too.

The tenet of Displacement Theory highlights the shrinking space of the old media and the time spent by people to utilise them, as the new media reaches out to people faster than that of the old media.

## **DEFINITIONS OF NEW MEDIA**

Lev Monovich has used eight distinct propositions in his introduction to *The New Media Reader*, to define new media.

- Cyber culture is all about the social and cultural changes made in the process of utilizing internet whereas the new media deals with the new paradigms and cultural objects (especially from digital to analog television, iPhones)
- New media use the digital computer technology to allocate various activities for distribution and exhibition.
- New Media rely on the digital representation of data and the manipulation of the same in simulacra controlled by software.
- New Media are conceived to be the mix of old conventions of data access, structure, representation and manipulation based on visual reality and human experience with that of the modern conventions of software based on numerical data.
- New Media are set to be a part of aesthetics of modern technology which could possibly be traced in accordance with social, political and economical histories of the modern period.
- New Media do faster execution of algorithms previously employed manually through a cybernetic control device called computer.
- New Media are meta-media where the databases, search engines and hyper media can

also enhance the accessible old media as the postmodern aesthetics reinvented the modernist aesthetics in a unique manner.

- New Media attempt to do parallel articulation of similar ideas in PostWWII or “combinatorics” and modern computing by creating images through systematic change of a single parameter. Therefore, it is easy to note the new media relies on algorithms but not on technology in any way.

## GLOBALIZATION AND NEW MEDIA

The rise of new media changed the global interaction among people on various issues beyond borders and barriers of communication through videos, blogs, websites, pictures and other user generated media. We can identify the insignificance of distance as Cairncross (1998) dwells on “the death of distance” in this era of globalization. Flew (2002) asserts that Globalization occurs as an outcome of this evolution of new media.

The ultimate creation of globalized media environment is sometimes found to be in adverse hostility with that of the public sphere. There are always tensions emanating from the public sphere in contradiction with the “national political and cultural institutions”. Ingrid Volkmer identified the public sphere as a platform of restructured and disembodied realm from national and cultural institutions. It changes the relationship between the public, the media, and state (Volkmer, 1999:123).

Virtual Communities being established online, transcend geographical boundaries without any social restrictions. These self-defined networks as Howard Rheingold (2000) describes, resemble what we do in reality.

“People in virtual communities use words on screens to exchange pleasantries and argue, engage in intellectual discourse, conduct commerce, make plans, brainstorm, gossip, feud, fall in love, create a little high art and a lot of idle talk” (Rheingold cited in Selvin 2000:91). For Sherry Turkle “making the computer into a second self, finding a soul in a machine, can substitute for human relationships” (Holmes 2005:184). New media can possibly create associations of the like-

minded people worldwide.

The concept of technological determinism is a concept which remains to explain relationship of technology and society. Most experts agree: “Technology does not determine society. Nor does society script the course of technological change, since many factors, including individual inventiveness and entrepreneurialism, intervene in the process of scientific discovery, technical innovation and social applications, so the final outcome depends on the complex pattern of interaction. Indeed the dilemma of technological determinism is probably false problem, since technology is society and society cannot be understood without its technological tools” (Castells 1996:5). These ideas reflect upon the core tenets of societal transformation precipitated by Marshall McLuhan.

Manovich and Castells have argued that whereas mass media “corresponded to the logic of industrial mass society which values conformity over individuality,” (Manovich 2001:41), New media adopts the logic of post-industrial society or globalised society whereby “every citizen can construct her own custom lifestyle and select her ideology from a large number of choices. Rather than pushing the same objects to a mass audience, marketing now tries to target each individual separately” (Manovich 2001:42).

## A TOOL FOR SOCIAL CHANGE

The use of New Media for social movement and mass mobilization, is unique in recent history as was evidenced by Anna Hazare's anti-corruption movement. There have been multiple occasions when many social protests and public demonstrations made use of new media to educate, organise, communicate and create coalitions among the public. Some scholars may disagree about this process democratization inbuilt in the new media as access is denied to all sections of society to participate and contribute in every possible manner.

New Media empowers even less radical social movements such as Free Hugs Campaign. These movements in fact use online videos and clips of their slogans to publicise their agenda and attract

more number of bloggers to expand their support base. E.g. Free Tibet Campaign

### **National Security**

New media can be easily used to identify thrust areas of national security. There have been innumerable innovations in the system of espionage through face book and other forms of new media.

## **INTERACTIVITY AND NEW MEDIA**

Interactivity is the axiom of new media which tends to radically channelize the dissemination of internet access.

## **CLASSIFICATION OF SOCIAL MEDIA**

Social-media technologies take on different forms including Internet forums, such as weblogs, social blogs, micro blogging, wikis, social networks, podcasts, pictures, video rating and social bookmarking. It also includes vlogs, wall-posting, music and picture sharing, crowd-sourcing and voice over IP. Besides, social network aggregation can integrate many platforms in use.

### **VIRALITY**

Virality is defined as 'a greater likelihood where the users will re-share the content posted by another'. To re-share the content many social-media sites provide specific functionality like Twitter's re-tweet button and Pinterest pin or Tumblers re-blog function. Non-profit organizations have interest in Virality and Businesses are interested in Viral-marketing.

## **MOBILE SOCIAL MEDIA**

Mobile social media, refers to the combination of mobile devices and social media. This new application differs from traditional social media as it incorporates new factors such as current location of the user (location-sensitivity) or time delay between sending or receiving messages (time-sensitivity). There are four types of mobile social media applications, according to Andreas Kaplan and they are:

1. Space-timers: Sensing the location and time

while sending messages (location and time sensitive) (e.g. Face book Places; Foursquare)

2. Space-locators: Sensing specific location while sending messages with reference to certain place (only location sensitive) (e.g. Yelp; Qype)
3. Quick-timers: Transferring applications to mobile devices to increase immediacy (only time sensitive) (e.g. posting Twitter messages; Face book status updates)
4. Slow-timers: Transferring applications to mobile devices (neither location nor time sensitive) (e.g. waiting a YouTube video or reading Wikipedia entry)

## **MOBILE SOCIAL MEDIA AND BUSINESS POTENTIAL**

Unlike traditional social media, the mobile media makes use of location and time sensitivity aspect for market research, communication, sales promotions/discounts and relationship development programs.

### **MARKET RESEARCH**

Mobile social media gives information about offline consumer, exact entry timing and comments made during the visit

### **COMMUNICATION**

Mobile social media communication takes two forms: first is company-to-consumer-- where the company establishes a connection with consumer by providing 'revise about location nearby'. The second type is 'user-generated content'. For example MacDonald's offered \$5 and \$10 gift cards to 100 users who randomly checked in their Restaurant. The check-ins became 33% resulting over 50 articles and blog posts.

### **SALES PROMOTION AND DISCOUNTS**

Customers used printed coupons in the past. Mobile social media allows companies to incorporate new ideas like buy three and one free, or two flights for the price of one.

## RELATIONSHIP DEVELOPMENT AND LOYALTY PROGRAMS

In order to increase long-term relationship with customers, companies create loyalty programs that allow customers to earn discounts who check-in regularly at a particular location. For instance, some provide 10%, 15% and 20% discount to the customers on their total purchase.

## E-COMMERCE

Online purchase and E-commerce are highly accessible and popular with mobile social media applications like Amazon.com and Pinterest.

According to the Nielsen Company's "The US Digital Consumer Report", almost half of (47%) of smart phone owners visit social network via mobile applications.

## DISTINCTION FROM OTHER MEDIA

Social media is referred as consumer-generated media by E-Commerce Businesses (CGM). The general definition of social media is the combination of technology and social interaction to create some value. Electronic and print media are the two types of media from which people get information, news, education and other data. Social media is inexpensive and are easily accessible than the traditional or industrial media such as newspapers, television and films. To publish information in industrial media authentic proof with proper revision should be done.

Social and industrial media reach both small and large scale audience; for example a television show or blog post can reach millions of people. The differences between social and industrial media are:

1. **Quality:** In industrial publishing the quality range is narrow as it is mediated by a publisher. The content posted in social media may be abusive and the quality varies from high to low.
2. **Reach:** Both industrial and social media reach global audience but industrial media is centralized for organization and production. Social media, on the other hand, is decentralized and more in production and utility.

3. **Frequency:** Many pop-up advertisements are frequently displayed in social media.
4. **Accessibility:** Social media are easily accessible by general public with a little or no cost.
5. **Usability:** Specialized skills and training are required for industrial media production. Social media productions are easily accessible and require modest skills.
6. **Immediacy:** Communication in industrial media takes a long time whereas in social media we get instantaneous response.
7. **Permanence:** Articles created in industrial media cannot be altered but in social media it can be altered using editing option.

Community media owned by a community consist of radio, newspapers and TV which combine both industrial and social media features.

Social media is widely developed and serves as a platform for people to exchange thoughts, views about a product or company. Doc Searls and David Wagner, researches of the effects of internet on marketing said, "The best of the people in PR are not PR at all. They understand that they aren't censors, they're the company's best conversationalist". PR professionals converse with the public about their brand and try to improve their product.

## MANAGING SOCIAL MEDIA

Social media monitoring tools allow marketers to search; track and analyze conversation about their product by public. This is useful for PR management. Monitoring tools may be free or subscription-based.

Social media focuses on seven functional building blocks. The building blocks explain the needs of the audience.

## HONEYCOMB FRAMEWORK OF SOCIAL MEDIA

In a 2011 article,[2] Jan H. Kietzmann, Kristopher Hermkens, Ian P. McCarthy and Bruno S. Silvestre "present a framework that defines social media by using seven functional building blocks: identity, conversations, sharing, presence, relationships, reputation, and groups." For example, LINKEDIN users care about identity,

relationships and reputation whereas YouTube's features are sharing, conversations and reputation. Many companies build their own social containers like the above mentioned networks. Private communities are created in order to engage people in vocation and hobbies.

## **IDENTITY**

Users reveal their identities in social media settings using this block. They record their name, age, gender, profession and other details.

## **CONVERSATION**

This block helps the users to communicate with each other in groups or individually. They discuss about current issues, politics, create new relationship and befriend new people with same temper.

## **SHARING**

The main purpose of social media is sharing. People share their ideas, photos and content. The term Social is crucial because sociality is brought among people.

## **PRESENCE**

This block helps us to know whether our friends are present in online. For example in Face book we can see the presence on chat option indicated by green bullet.

## **RELATIONSHIPS**

This blog helps to find the relationship between users. Two or more users join in a group to converse, share, chat and gradually develop their relationship.

## **REPUTATION**

This block helps the users to identify their position in social media. Reputation can have different meaning but mostly it means the matter of trust. Another aspect of social media is Reputation Management. Social media believe in 'mechanical Turks', which is a tool to aggregate user-generated information to trustworthiness.

## **GROUPS**

This block helps the users to create groups, communities, sub-communities to share things. Through this the social network enlarges its network.

## **BUILDING “SOCIAL AUTHORITY” AND VANITY**

Social media is effective in the process of “building social authority”. The main concept in social media is that you cannot dominate your conversation rather can make influence through messages. A marketer should not expect public to be interested in marketing messages. In 2010 Trust report, 64% of people trusted the industrial experts. According to Inc. Technology's Brent Leary, "This loss of trust, and the accompanying turn towards experts and authorities, seem to be coinciding with the rise of social media and networks."

## **SOCIAL MEDIA MINING**

Extracting actionable pattern from social media data is called Social media mining. This introduces theories and methodology of other disciplines such as computer science, data mining, machine learning, social network analysis, network science, sociology, ethnography, statistics, optimization, and mathematics. They also include tools to measure, and mine the data.

## **GLOBAL USAGE**

In her article” "The Emerging Role of Social Media in Political and Regime Change" Rita Safranek says: the most youthful population is in Middle east and African region and the majority of Face book users are from these countries, including 17 million Face book users,25000 Twitter accounts, according to Arab Advisors Group.

## **EFFECTS OF USING SOCIAL MEDIA FOR NEW PURPOSES**

According to 2011 Pew Research data, 80% of American adults are online, 60% use social networking sites. Americans get the news from

Face book or Twitter rather than any traditional media. News are forwarded via e-mail or social media posts.

TV remains a popular source of news but the audience are only 34%. Different areas of news like national, political, celebrity, weather news are known via Face book, LinkedIn, Google+ or e-mail. Even though Face book and Twitter act as a pathway to deliver news to people, but they cannot replace the traditional media.

Children can improve their creativity, learning ability and interactive skills through social media. They can have smooth relationship with their peers. Evil side of this media is that it spoils mental health of teens and they turn anti-social, aggressive with Narcissistic attitude. Since the creation of Face book in 2004, it has become a distraction and a way to waste time for many users. In a study 61 teenagers were interviewed from December 2007 to Feb 2011, the teens reported that they read print paper sometimes but get the news from social media sites like YouTube, Face book, MySpace etc

Runge et al. (2013), studied using Nanotechnology and followed the tweets in Twitter. Nearly 41% tweeted it to have a negative impact. Positive-sounding tweets were also there but the negative predominated them. This led to the notion that the negative side was exposed about Nanotechnology. Biases should be avoided while addressing new media.

Several colleges and administrations have their own Twitter pages so that they can get connected with people. Face book and other social sites give links so that users can know the news in detail.

According to "Reuters Institute Digital News Report 2013", receiving news in social media are not the same for all countries. 45% in Spain, 38% in Italy, 17% in UK and 14% in France receive online news. The experts said that due to cultural difference the usage differs and not because of less access to technical tools.

### **HISTORY AND MEMORY EFFECTS:**

The two important tools which have shaped American collective memory is News media and Journalism. News media traced the American past and had a authoritative voice while exposing the national events, death of a political leader and

progress for hopefulness. While Journalists provide information about contemporary events, history is known via news media.

Social networking sites become popular among older and younger generations alike. The journalists now have started opting social media to give the news. During US Presidential election time they predicted the result beforehand with the help of tweets given to Barack Obama than his opponent Mitt Romney.

### **SOCIAL MEDIA PLATFORM**

In social networking sites many individuals come in contact and develop their relationship. World has become smaller due to social networking sites. Companies use this opportunity to advertise their products. This type of personal interaction improves their marketing than the traditional outbound marketing. Many people tweet about the products, companies and start giving comments. This helps an individual to study clearly about a product. Loyalty and trustworthiness are increased as the information is from a reliable party. Companies follow some strategies to do their marketing,

- They choose the correct social network
- Financially plan the system
- Organize the marketing in social network
- Promote a product
- Measure the performance

There are two strategies in for marketing in social media

### **PASSIVE APPROACH**

The companies learn from the customers about their product via comments, tweets, blogs etc. For example iphone-6 video created confusion as the phone could be "bends" merely by hand. This "bend gate" created confusion all around the world but later the Apple company solved the mystery. Traditional marketing is time consuming and also high in cost but social media is of no cost and finally it is earned media than paid media.

### **ACTIVE APPROACH**

Social media can be a direct marketing tool and also interactive tool to gain the individual

support. Companies hire a confidential blogger to comment on their product and people start believing in their product. Our current Prime Minister Narendra Modi ranks at top slot with Barack Obama in the fan following. Narendra Modi used social sites as a tool to communicate with young people and also all the population with internet access. His efficient method resulted in his reputation.

### **PURPOSE AND TACTICS**

The main purpose of employing social media in marketing is to make their products known to unknown people and also to make them to share their views in this media. The main Google organic search result will be low if the company's product is not searched much in other social networking sites like Face book, Google+, Twitter etc... Instagram has 130 million users monthly and Twitter 210 million users. Traditional media is time consuming and highly costly. It is a one way process and not interactive in nature.

### **TWITTER**

Twitter allows a company to post their ad limited to 140 characters in follower's page. Message can link to products, Face book profiles, pictures etc....

### **FACE BOOK**

Face book have a detailed description about a product than twitter. Many people click the link to Face book to view a product as it has pictures, comments and descriptions. In 2011 study 84% of people are interested in viewing a product in Face book.

### **GOOGLE+**

In addition to pages and links Google share an integrated part with Google search engine. Other Google products like Google maps, Google ad word is also added. Google+ allows for targeted advertising methods, navigation services, and other forms of location-based marketing and promotion.

### **LINKEDLN**

This is a professional related networking site where the companies create their own profiles and separate an area for business partnerships. The "Company pages" are similar to Face book pages. LinkedIn is used by leading companies for employment recruitment. They even send e-mails to profiles who wish to work in their organization.

### **YELP**

Yelp is an online index of business profiles. It is similar to Yellow pages where we can find the location, address, contact details with other information. Companies create their profiles and give the location with pictures. This helps the customer to know more about the company.

### **INSTAGRAM**

In May 2014 there were 200 million Instagram users. This app is supported by Apple and Android systems and so all the smart phone users can access this app. Many see this as a potential platform to target the young. Marketers also provide this platform for shopping and encouraging the users to collect pictures and sharing them on social sites. In this way, this Instagram promotes marketing in social media.

### **MARKETING TECHNIQUES**

#### **TARGETING, COBRA, AND EWOM**

Social networking sites provide information to the companies about the likes and dislikes about their products. The marketers use techniques like COBRA and eWOM to promote their products. COBRA means Consumer's online brand related activities; they include activities such as uploading a photo. Electronic word of mouth is also consumer to consumer activity. For example a hotel can be advertised in social media with no cost. A good service will give a positive review and bad will give negative by the consumers.

Traditional media like TV and newspapers are also moving towards electronic type. Print ads have



QR code which can be scanned to link the page of the product. Now a day's traditional media is also moving towards electronic type. The main drawback in traditional media is that the ads are leaked in social media even before it is published. TV shows are time delayed in telecasting and so people spread the news even before it is telecasted. Time difference is a problem faced by traditional media.

### **ETHICS OF SOCIAL MEDIA MARKETING**

The print media and social media share the same ethics. The main ethics which the social marketers should follow is being honest in their campaigns. They should respect the users feeling and contact only the persons who are interested in their products. False information should be avoided as it is non-ethical. Most social network marketers use Face book and MySpace to advertise their products.

### **NETWORKED LEARNING**

This is the new learning tool which develops and maintains relationship among people. The central term of networked learning is connections. Centralized Connection is more efficient in educational institution. Some has the thought that networked learning is informal and situated learning. Networked learning was restricted in the beginning and instead formal textual learning and analysis by traditional mode was encouraged.

### **HISTORY**

Network learning can be traced back to 1970's. Ivan Illich's 'Deschooling society' is a significant work , as also A Pattern Language: Towns, Buildings, Construction, published by Christopher Alexander, Sara Ishikawa, Murray Silverstein, Max Jacobson, Ingrid Fiksdahl-King and Shlomo Angel in 1977. Network learning process based on Internet and conferencing was experimented by "The Institute For The Future". Hiltz and Taroff, the pioneers linked education with internet.

### **1980'S**

Dr. Charles A. Findley analysed the collaborative networked learning project at Digital Equipment Corporation and developed prototype which was the base for future research and development of Collaborative networked learning (CNL) and Collaborative learning work (CLW).

Today Internet has become a significant and accepted means of access to information and communication.

### **ASSESSMENT**

The issue of assessing learning technologies and learning outcomes which once were two distinct areas ,have become one continuous process in that now technologies too are used to assess students.

### **ASSESSMENT OF TECHNOLOGY**

Jenkins modifies this definition by acknowledging them as building on the foundation of traditional literacy, research skills, technical skills and critical-analysis skills taught in the classroom.

### **EDUCATIONAL TECHNOLOGY**

Electronic educational technology has become an important part of society. Modern educational technology includes (and is broadly synonymous with) e-learning, instructional technology, information and communication technology (ICT) in education, EdTech, learning technology, multimedia learning, technology-enhanced learning (TEL), computer-based instruction (CBI), computer managed instruction, computer-based training (CBT), computer-assisted instruction or computer-aided instruction (CAI), internet-based training (IBT), flexible learning, web-based training (WBT). Educational technology includes types of media such as text, audio, images. Computer based learning are widespread. Learning may be synchronous or instructor led. Sometimes it is asynchronous based.

## DEFINITION

"The study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources" is the definition given by Richey. To him both educational theoretic and physical hardware, refer to educational technology, its latest variants are:

## MOBILE TECHNOLOGIES OR M-LEARNING

- Theory and practice of educational approach
  - Technological tools and media
  - Learning Management System
  - Information and communication technology
- These are the technical and intellectual aspects of Modern technology which has become the important part in society. It encompasses e-learning, information and communication technology.

In fine, technologically and electronically,-- educational technology are significant aids to support learning and teaching. computer-mediated communication, cyber-learning, and multi-nodal instruction, virtual education, personal learning environments, networked learning, virtual learning environments (VLE) are numerous terms --which have potential distinctions.

"Virtual learning" is delivered by internet and it is narrowly defined in sense of semantics: 'Virtual' and is distinct from face-to-face like classroom teaching though computer-aided by technologies. Virtual Learning assumes: "we can learn things without going to class". Distance education is one such, where students and instructors learn and teach via technologies.

## E-LEARNING

"E" in e-learning refers to energetic, exciting, emotional, enthusiastic, excellent, in addition, electronic, said Bernard Luskin, one of the educational technology pioneers, while Parks suggests that the "e" should refer to "everything, everyone, engaging, easy". The fact is Media psychology and learning theory are new applications and developments.

## HISTORY

Very early tools have helped people to learn in ways that are easier, faster, surer, or less expensive. Various types of abacus have been used. Writing slates and blackboards have been used for at least a millennium. Books and pamphlets have also held a prominent role. Duplicating machines such as the mimeograph and Gestetner stencil devices were also used to produce short copy runs (typically 10–50 copies) for classroom or home use. The use of media is traced back to the first decade of the 20th century ] with the introduction of educational films (1900s) and Sidney Pressey's mechanical teaching machines (1920s). However large scale assessment like the Army Alpha came later which enabled to assess the intelligence and the aptitudes of World War I military recruits.

Educational institutional used Slide projectors during the 950s. Questionnaires were devised in the 1920s and saw widespread use from the late 1950s.

Computer terminals is a channel where students could access informational resources on a particular course. Listening to the lectures that were recorded via some form of remotely linked device like a television or audio device are also included.

Patrick Suppes and Richard C. Atkinson psychology professors experimented using computers to teach math and reading to young children in elementary schools in East Palo Alto, California. Stanford's Education Program for Gifted Youth is descended from those early experiments. In 1963. Bernard Luskin installed the first computer in a community college for instruction.

In 1971, Ivan Illich published a hugely influential book called, *Deschooling Society*, in which he envisioned "learning webs" as a model. Murray Turoff and Starr Roxanne Hiltz made notable contributions in computer-based learning at the New Jersey Institute of Technology[22] as well as developments at the University of Guelph in Canada.[23] In 1976. Bernard Luskin launched Coastline Community College as a "college without walls" using television station KOCE-TV as a vehicle.

By the mid-1980s, accessing course content

became possible at many college libraries. In computer-based training (CBT) or computer-based learning (CBL), the learning interaction was between the student and computer.

In the mid-1980s digitized communication and networking in education started. New medium was used by Educational institutions by offering distance learning courses using computer networking for information. E-learning system was assumed to be for transferring knowledge, as opposed to systems developed later based on computer supported collaborative learning (CSCL), which encouraged the shared development of knowledge.

## **VIDEOCONFERENCING**

Videoconferencing was an important forerunner to the educational technologies known today. This work was especially popular with Museum Education. Even in recent years, videoconferencing has risen in popularity to reach over 20,000 students across the United States and Canada in 2008-2009. Disadvantages of this form are image and sound quality which is often grainy or pixilated; videoconferencing requires setting up a type of mini-television studio within the museum for broadcast, space becomes an issue; and specialised equipment is required for both the provider and the participant.

## **OPEN UNIVERSITY**

The Open University in Britain began a revolution of using the Internet to deliver learning. Online distance learning and online discussion between students are the two web-based training. Practitioners such as Harasim put heavy emphasis on the use of learning networks. Computers play in higher education was researched by Cassandra B. Whyte. This evolution, which includes computer-supported collaborative learning in addition to data management, has been realized. To create course websites along with simple sets of instructions teachers relied upon emerging technologies, which are text-based online virtual reality systems.

In 1993, Graziadei described an online computer-delivered lecture, tutorial and assessment project using electronic mail. By 1994,

the first online high school was developed as a technology-based courses which is portable, replicable, scalable, affordable, and having a high probability of long-term cost-effectiveness.

CALCampus presented its first online curriculum. With the drastic shift of Internet functionality, multimedia introduced communication; through the invention of webcams, educators can simply record lessons live and upload them on the website page. There are currently wide varieties of online education that are reachable for colleges, universities and K-12 students. In fact, the National Center for Education Statistics estimate the number of K-12 students enrolled in online distance learning programs increased by 65 percent from 2002 to 2005.

Online education is rapidly increasing. According to a 2008 study conducted by the U.S Department of Education, 66% of postsecondary public and private schools participating in student financial aid programs offered some distance learning courses; of which 77% of enrollment is in online component.

The prevailing paradigm is computer-mediated communication (CMC), where the primary interaction is between learners and instructors, mediated by the computer. CBT/CBL usually means individualized (self-study) learning, while CMC involves educator/tutor facilitation of learning activities. Modern ICT provides education with tools for sustaining learning communities and associated knowledge management tasks.

Students growing up in this digital age have extensive exposure to a variety of media such as Microsoft. Schools are equipped with labs. to provide them the ability to teach their students through technology, which may lead to improved student performance.

## **THEORY**

Learning theories may be considered in designing and interacting with educational technology. E-learning theory examines these approaches. These theoretical perspectives are grouped into three main theoretical schools or philosophical frameworks: behaviorism, cognitivism and constructivism.

**BEHAVIORISM**

This framework was developed in the early 20th century by Ivan Pavlov, Edward Thorndike, Edward C. Tolman, Clark L. Hull, and B.F. Skinner based on animal learning experiments. Many psychologists used these results to develop theories of human learning, but modern educators generally see behaviorism as one aspect of a holistic synthesis.

B.F. Skinner wrote about the functional analysis of verbal behavior and this is an attempt to dispel the myths in contemporary education as well as promote his system which he called programmed instruction. Ogden Lindsley's learning system is named as Celeration. This was based on behavior analysis but that substantially differed from Keller's and Skinner's models.

**COGNITIVISM**

Cognitive science underwent significant change in the 1960s and 1970s. Having the framework of behaviorism, cognitive psychology theories look beyond behavior to explain brain-based learning. The Atkinson-Shiffrin memory model and Baddeley's working memory model were established as theoretical frameworks. Computer Science and Information Technology have had a major influence on Cognitive Science theory. The Cognitive concepts of working memory are otherwise called as short term memory. Another major influence on the field of Cognitive Science is Noam Chomsky. Today researchers are concentrating on topics like cognitive load, information processing and media psychology. These theoretical perspectives influence instructional design.