Unit 1

The word "media" applies to many things in the 21st century, from mass media to news media, and traditional media to the many emerging forms of digital media. While you can likely come up with several different examples — and almost certainly you take in some form of media in your everyday life — it can be difficult to succinctly define the word. It comes from the Latin *medius* or *medium*, which means "the middle layer." Media is an expression that brings some type of information or entertainment from one body to another.

Before the advent of the digital age, the most popular forms of media were what we now call analog or traditional media: radio, newspapers, magazines, billboards, journals, and the like. Since then, the technological revolution has brought with it many new types of media that now play a major role in disseminating information and entertainment to populations around the world. But what is digital media? What does it encompass, how did it evolve, and where is it headed? Read on to learn more about digital media, including different types, major companies in the field, and digital media job markets. We'll also unpack what kind of educational background can position you to embark on a career in digital media.

Defining Digital Media

Unlike traditional media, digital media is transmitted as digital data, which at its simplest involves digital cables or satellites sending binary signals — 0s and 1s — to devices that translate them into audio, video, graphics, text, and more. Anytime you use your computer, tablet, or cellphone, opening web-based systems and apps, you're consuming digital media. Digital media might come in the form of videos, articles, advertisements, music, podcasts, audiobooks, virtual reality, or digital art.

The digital age began to unfold in the second half of the 20th century, as computer technology slowly infiltrated different industries and then moved into the public sphere. Yet analog technology remained dominant even through the 1990s. In the years that followed, newspapers, magazines, radio, and broadcast television were still the primary means of communication, with fax machines and pagers becoming most people's first casual forays into the digital world.

When the internet went from a niche hobby to something common in most American homes, the digital age was fully underway. Now, most people walk around with at least one digital media device in their pocket, purse, or backpack, using digital communication at work, on their commutes, and even while out to dinner or shopping. After that, they might come home and play a video game or stream a show, interacting with digital media yet again. Before they go to sleep, they might talk to their digital home assistant, finding out the weather forecast for the following day. What is digital media? The answer is not a simple one. Defining digital media is difficult because it is rapidly evolving alongside innovations in technology and how people interact with it. As we move into the future, our day-to-day use of digital media will likely only increase, particularly as holographic and artificial intelligence (AI) technologies are developed and incorporated into our daily lives.

Exploring Types of Digital Media

Traditional (nondigital) media includes several types of communication technologies, some of which have existed for hundreds of years. Newspapers, magazines, books, and other printed materials were among the first types of traditional media. Those forms of media persist, joined in the 19th century by the telegraph and in the 20th century by radio and television, the first examples of mass media.

The digital era, however, meant a whole new set of media transmission methods and devices, with more developed every year. These days, most types of digital media fit into one of these main subgroups:

- Audio: Audio forms of digital media include digital radio stations, podcasts, and audiobooks. Tens of millions of Americans subscribe to digital radio services such as Apple Music, Spotify, Tidal, Pandora, and Sirius, which provide a wide range of musical stations and allow users to listen to databases of millions of songs on demand.
- Video: Many digital media outlets are visual, from streaming movie and television services such as Netflix to virtual reality surgical simulators used in medical institutions. One of the biggest players in visual digital media is YouTube, which hosts billions of videos. Launched in 2005, the website is one of the most popular destinations on the web.
- Social media: Social media includes sites such as Twitter, Facebook, Instagram, LinkedIn, and Snapchat, which enable their users to interact with one another through text posts, photographs, and videos, leaving "likes" and comments to create conversations around pop culture, sports, news, politics, and the daily events of users' lives.
- Advertising: Advertisers have made their way into the digital media landscape, taking advantage of marketing partnerships and advertising space wherever possible. The internet has moved away from the use of pop-up and autoplay ads, which flooded early websites and drove away visitors. Instead, advertisers look toward native content and other methods of keeping consumers invested without overselling their product.
- News, literature, and more: Traditionally, people consumed text via books, print newspapers, magazines, and the like. Even though digital media has proliferated, the desire for those kinds of reading experiences has endured. Research from the Pew Research Center indicates that 38% of adults in the U.S. read news online. The proliferation of literary websites, the popularity of resources like Wikipedia, and the rise of e-readers like the Kindle all further underline the continued importance of written work in digital media.

Examples of Digital Media

Digital media encompasses a wide array of websites, tech devices, and platforms. You may be aware of some uses of digital media, but the fact is that digital media influences many industries and has opened a range of avenues for people to make a living and utilize their talents in different ways.

Prior to digital technology, surgeons and other medical professionals had to rely on clunky simulators, videos, or cadavers to practice new surgeries, which made it difficult to perfect certain operations and increased complications when they were performed on living patients. Digital technology has introduced all sorts of new tools

into the surgical suite, allowing doctors to better practice and perform such procedures, thus increasing patient safety and reducing mistakes while lowering costs. Modern-day surgeons practice using advanced virtual reality (VR) systems, working through different scenarios with digital versions of the same miniature cameras and sensors they'll rely on during an actual surgery.

Digital media has also led to entirely new careers. Websites such as Twitch allow people to stream their daily lives, and people can pay to subscribe to individual channels to watch what interests them. Twitch streamers include video gamers, musicians, social influencers, and even those who just stream their daily activities, such as going to the store, cooking dinner, or cleaning the house. Users from all different walks of life expose subscribers to different cultures and lifestyles. Digital media professionals can also take advantage of easily obtainable technology such as cellphones and open-source coding to film their own shows, movies, or podcasts and stream them at little or no cost, creating greater equity in media. These are just a few examples of digital media, though the market for such products is expanding, and there are more applications every year.

Major Digital Media Companies

As the digital world has taken over the modern business landscape, some of the most valuable companies in the world are in the tech sphere. Many of these companies have diverse interests and divisions, including in various forms of digital media and related ventures. As such, the top digital media companies are among the largest corporations on Earth.

- Google, founded in 1998 by Larry Page and Sergey Brin, started as a revolutionary new search engine, which spurred the growth of one of the world's most valuable brands (worth \$309 billion in 2019, according to statistics reported by CNBC). Google has become a massive, multinational technology company, developing all things internet-related, including its own web browser (Chrome), laptops (Chromebooks), smart glasses, and internet television streams (Chromecast). In 2015, Google announced that it was forming the parent company Alphabet to run the organization's diverse departments with Google existing as a subsidiary.
- Netflix launched in 1997 as an online-based movie rental service, where people could order DVDs and have them delivered to their home. Customers made their wish list of films, and Netflix sent them DVDs from the list. Users could keep DVDs as long as they wanted, receiving the next movie on their list upon return of the first. Netflix has since grown from third-party movie distributor to online streaming giant, with over 150 million subscribers paying for a mix of television, movies, and original content. The brand has launched pop culture sensations such as "Orange Is the New Black," "Stranger Things," and "BoJack Horseman."
- Apple has grown from a niche computer company with elegant marketing into
 one of the dominant technology forces on the planet. Founded by Steve Jobs
 and Steve Wozniak in 1976, Apple spent the first quarter-century of its
 existence as a cutting-edge though struggling computer company, with a few
 impressive products that never quite caught on. Then, with the introduction of

- the iMac in 1998, followed by the iPod three years later, marketed with Jobs's brilliant strategies driving intrigue and demand, Apple moved to the forefront of the gadget market. In the years since, products such as the iPhone, iPad, and Apple Watch have kept Apple going strong. Millions of Americans consume large amounts of digital media each day through their Apple products, such as iTunes and Apple TV.
- Facebook and Twitter are two of the biggest social media websites. Instagram, YouTube, Snapchat, and TikTok also have substantial user bases in the hundreds of millions or more. According to a 2018 Pew Research Survey, 75% of all U.S. adults use YouTube and 68% use Facebook. Over 94% of 18- to 24-year-olds use YouTube, and 80% of them use Facebook. Major players in the business world own these brands. For example, Facebook owns Instagram and other platforms such as WhatsApp. Additionally, Google owns multiple web ventures including YouTube. As generations that grew up with social media get older and new users come of age, the number of people on these platforms will likely continue to grow.
- Amazon remains a digital commerce titan, with an enormous presence in the
 digital media sphere. The company, in fact, is one of the world's largest by
 market value according to Investopedia. From Amazon Prime and its
 accompanying streaming service to personal assistants, cloud service, and
 digital advertising, the company has an expansive presence online. This is
 reflected in its growth, with revenues tripling between 2017 and 2018, from
 \$117.9 billion to \$232.9 billion.

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What is Digital Media?

Digital media is any kind of media which can be processed, analyzed, stored and distributed by electronic digital machines or devices. Digital media is a type of media which covers content & promotions delivered through digital platforms including electronic media, mobile phones, computers, podcasts, applications etc. Companies & people use digital media for various purposes including information source, entertainment, games, business etc. It provides a very useful platform from the business perspective. Majority of the customers are now using digital media extensively. In some industry sectors, this number is very high hence from business perspective, understanding and use of digital media becomes very important.

Digital Media is similar to traditional media in terms of its ability to deliver content and value to audience or potential customers but it differs in the fact that it is totally digital in nature, its effectiveness can be measures easily and it is highly interactive and shareable.

In this article:

- Importance of Digital Media
- Digital Media Types
- Advantages of Digital Media
- Examples of Digital Media

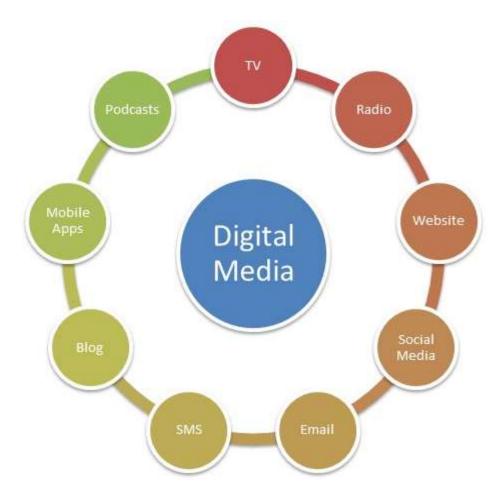
Importance of Digital Media

With growing technology and dependence on machines our interaction with machines is increasing and hence the role of digital media is also increasing in everyone's life. Every minute there is addition of something new over the digital sources and the user base to explore this information is also on the rise. Through the last decade there has been a significant rise of businesses based on digital platforms such as upcoming radio stations, e retail websites, logistic companies, search engines etc. and so is the use of marketing in digital platforms increasing.

Digital media provides a very substantial customer base for the marketers. The speed of content delivery is fast and highly customizable as in the case of social media marketing whereas it is reachable to common masses through television advertisements. Email marketing and SMS services provide yet another medium for promoting marketing content to the customers.

In traditional media like print and TV, measurement of the effectiveness and interactivity was limited to sampling or surveys but in digital media, the effectiveness can be measured and observed in real time. Subscribers of a video channel or listeners of a podcast can be measured in real time helping the publishers improve the content instantly.

The interactivity and social media aspect of digital media makes it really important for businesses to start using them effectively in addition to traditional channels. Digital media is just not used for marketing but also it has become a sales channel as well. Customers are buying directly from the digital channels.



Read More

- Advertising Media
- Marketing Intermediaries
- Media Research
- Media Vehicle
- Media Strategy

Digital Media Types

As a reason for its variety of offerings, digital media is proving to be the pioneer in marketing platforms as it is highly cost effective and the turnover ratio of customers is relatively high compared to other platforms. It is also highly effective because in today's times the buying behavior of customers is highly dependent on internet and multimedia sources over various platforms. A decent digital media marketing approach starts from a very smaller yet largely impactful perspective of a user's life. The different digital media channels are:

1. TV & Radio

Generally the primary advertisements are either aired over TV or radio, shown through search engine advertisement, in-video campaigns, in-application campaigns etc., where the content delivered by the marketer is rather small and contains a link for the detailed description of the offering.

2. Websites & Social Media

The second most important part of digital media marketing which is the website. Websites can be interactive, loaded with content and user friendly. This helps in making the visitor or the user comfortable with the content, easily understandable and the value addition the offering can give. A decent pricing content is also made available with the differentiating points, if any, to the visitor.

3. Email & SMS

Digital media marketing includes the email and the SMS services. Often to either attract or to remind people about the website they visited for a purchase or actually made a purchase from, marketers use the platform of email and SMS services. Emails and SMS can be highly customizable, cost effective and informative. Emails tend to contain multimedia messages as well which the SMS cannot deliver but the rate of content delivery is higher in case of an SMS than an email.

4. Blogs

The fourth type of digital media marketing is the interactive blogs or review panels. Generally before making a buying decision any customer wishes to get a review from the current user of the product or service. Also there are certain doubts which can be cleared by the company or the current users through blogging websites where question and answer conveyance is very high.

5. Mobile Apps

With the growing presence of smartphones, mobile apps have become an important digital media option for businesses to work. Interactive apps help build a strong connect with its customers offering ease of use and instant updates.

6. Modern Formats (AR, 3D)

There are newer types of digital media coming up in the ecosystem like Augmented Reality, 3D (three dimensional), Podcasts, Stories which can help customers connect even better with a company and at the same time experience the product or service at much detailed and interactive levels.

Digital media has been proven to provide a very effective means of communication for the businesses and the customers. With the coming future the dependency of human on machines is definitely going to increase and the usage of digital media will

rise by many folds. Marketers can harness this opportunity and can reap benefits if the strategies are used properly.

Advantages of Digital Media

There are several advantages of digital media in marketing:

- 1. Digital media helps companies connect with its target audience.
- 2. Use digital and big data, the accurate target customers can be targeted.
- 3. It helps increase sales & business.
- 4. Using digital media helps establish the brand using all the channels that customers use.

Process of Digital media

Its same as the communication which you have learn in semester 1

Unit 2

Importance of Computer Technology

Computers are now part of our lives, they play important role in business, education, health care etc. Let's discuss the importance of computers briefly.

<u>Computer technology</u> has become so much a part of our lives that even imagining a day without it is now out of question. It is there in all the spheres of life. Even our enjoyment is being controlled by the computer technology. It can be regarded as the greatest contribution of science, a realization of the dream, "**global village**". In fact, its significance does not require any mention. Even a three-year old infant is computer-literate at present. Here is an overview of what computer has done for us.

Importance of computer technology in the field of education

The significance of computers in the field of education still remains a matter of debate. While some claim that it interferes with the enhancements of the learning skills of children, some argue that it helps them to be good learners. Error-free processing and documentation can be regarded as the greatest advantages of computer in the field of education. It allows you to store huge chunks of information for students for future reference. It comes as a right-hand assistant of teachers with an abundance of audio and video software and applications adaptable to make presentations. The ability to access the worldwide pool of information can be regarded as the greatest advantage of computer technology. The communication among students, parents and teachers is now the matter of a few seconds.

Searching and accessing information is lot faster and easier in computers. This makes it a practical substitute for the traditional books with hundreds and thousands of pages. Besides, the process of learning becomes much more interesting and lively with the facilities like live webcasts, PowerPoint presentations etc. And, now, the jobs like preparing test papers is just the matter of a few minutes of your time.

Importance of computer in the work place

Computer is now an integral part of our professional life. The greatest benefit professionals would have from the use of computer is the great savings from a paperless office. However, the security of information remains a matter of concern. If you are able to effectively use the security features provided in computers, you can get over this difficulty. The ability to access from wherever you are is another great advantage of the computer technology.

A computer with access to the Internet attached to a printer is a way to save huge. Since the computers are capable of doing multiple tasks simultaneously, it comes as a cost-effective option to replace several departments singlehandedly.

The advancements like online banking which allows you to do financial transactions from the comforts of one's own home have made it impossible to spend even a single day without computers.

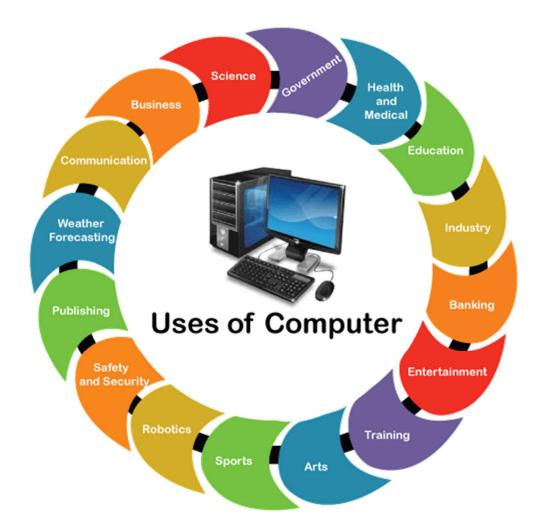
With the innovative devices like laptops and notebooks, computer is ready to accompany you wherever you go.

However, if you wish to enjoy all these advantages for a long time, it is a must that you take good care of it. Make sure that you install a good antivirus in your computer and update it regularly. Do not forget to update your drivers on a regular basis.

Uses of Computer

Computers are playing a vital role in almost every field and making our day-to-day tasks more manageable. Computers were only used to perform complex numerical calculations in a previous time, but they have reached too far and now perform many different roles. They are now performing diverse set functions from complicated calculations to generating business reports, bill generation to education, programming or development to entertainment, etc.

Because of their characteristics and powerful functionalities, computers are used in various fields, such as homes, businesses, government offices, research organizations, educational institutions, medical, entertainment, etc. Computers have taken industries and businesses to a whole new level. In this article, we have elaborated the most common uses of computers in different fields:



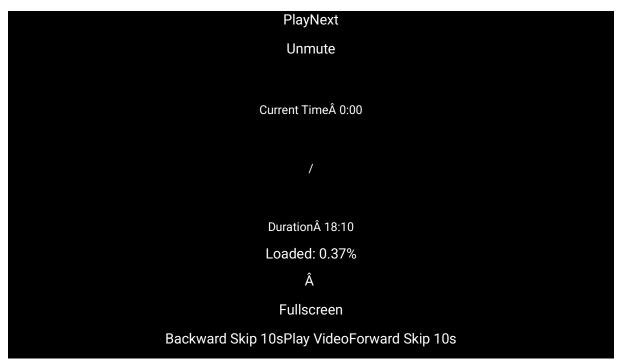
Business

Currently, computers can be seen in almost every business. Computers are almost part of a business setup because they increase productivity and help race in a competitive environment. In businesses, computers are primarily used to store and manage accounts and personal data, maintain projects, track inventory status, and make reports and presentations. Besides, computers are best suited for transaction processing because they are more accurate and faster than humans. Computers also help people analyze their investment, expenses, profits, sales and many other aspects of the business.

Science

Scientists are amongst one of those people who use computers as their primary work tool. In science, research and engineering, computers are best suited for collecting, analyzing, categorizing, and storing the data. They also help scientists to exchange data with each other both internally and internationally. Computers enable scientists from different locations (such as different countries) to work together on the same

project with cloud support. Besides, computers play a crucial role in launching, maintaining, controlling spacecraft, and operating many other technologies.



Government

In the government sector, computers are beneficial. They are getting used to performing various functions in different departments and improving their services' quality, efficiency, and productivity. Some examples of such services are city planning, traffic control, law enforcement, infrastructure developments, and tourism. In most cases, the primary purposes of using computers are performing data processing tasks, maintaining citizens' database, and promoting a paperless environment. Apart from this, computers are playing a crucial role in the country's defense system. They are helping in missile development, rocket, satellite launches, etc.

Health and Medical

Computers are radically changing the methods of diagnosis in hospitals. They are used for maintaining patients' information, records, live monitoring of patients, X-rays, and more. Everything is being digitized with the help of computers. Computers help configure lab-tools, monitor heart rate, and blood pressure, etc. Doctors get extra advantages in treating patients with proper drugs and medicines. Additionally, computers enable doctors to exchange patient's data easily with other medical specialists. Besides, advanced surgical devices are based on robotics that helping surgeons to conduct complex operations and surgeries remotely.

Education

Computers are broadly getting used in the education field. They help people get different educational materials (such as images, videos, e-books, etc.) in one place. All such information can be accessed through the Internet. Additionally, computers are best suited for online classes, online tutoring, online examinations, and creating assignments and projects. Apart from this, they can also be used to maintain and monitor student performance and other information.

Industry

Computers are used in industries to perform various tasks, such as maintaining inventory, interior designing, designing samples or virtual products, communicating over video conferencing, and more. Online marketing has made it easier for people to buy products in rural areas. Online trading in stock markets has also seen a significant revolution due to its easy participation potential. Computers have enabled people from different levels of different locations to participate easily in stock marketing.

Banking

Banking has become so advanced in the past few years. Most countries use online banking systems where customers can access their data directly using computers and the Internet. People can check their account balance, transfer money, and pay online bills, including credit cards. Besides, Banks use computers to perform transactions and store customer data, transaction records, etc. Banks have reduced the number of manual errors, number of employees, and costs to a great extent by using computers. ATMs are the best example of computers that are helping people to withdraw and deposit the money themselves.

Entertainment

Computers nowadays are one of the best mediums for entertainment. Computers can be used to watch movies, play games, listen to music, etc. Computers combined with MIDI instruments can be used to record audio through artificial instruments. Besides, people can also enjoy recording their videos with webcam and apply several entertaining AI effects. Several Photo editor programs are also available with fabulous powerful features.

Training

Most companies use computers to provide training to their employees. Computer-based training helps companies save their time, money, and increase productivity. Also, computer-based training can be used to train employees for large distances in

various locations. This will eliminate travel time and costs, making the training process much more comfortable and smoother.

Arts

Computers have become part of art, photography, dance, and culture. Computers with advanced features allow users to draw their projects directly on it. Besides, people can use computers to digitize their photos. There are several photo editor software that can help people edit and customize their photos. Apart from this, the dance's movements and steps can be shown live with animations' help.

Sports

In today's technologically developed world, computers are being used in almost every sport. There are many sports activities where computers are making things possible. In sports, computers are mainly used to maintain scoreboards, records, and other statistics. Furthermore, they are used to analyze player movements and make various in-game decisions. Computers help make complex in-game decisions (especially in umpiring), which cannot be seen by human eyes.

Robotics

Robotics is one of the emerging fields of technology that uses computers for science and engineering as well as designing machines. These machines can be virtual (such as software bots) and physical ones that can reduce or eliminate human workload. Additionally, some machines can perform heavy tasks that humans cannot complete, or that may take a long time to complete. Car manufacturing was one of the first examples where robots helped to assemble car parts and perform many other heavy tasks. However, nowadays, robots are beneficial in many fields, such as exploring areas where conditions are difficult for humans, helping the military, helping law enforcement and helping health professionals, etc.

Safety and Security

Computers are capable of working together with different equipment, tools, and technologies. When it comes to safety, computers are widely being used with the security camera. Almost every private and government organizations are equipped with security cameras to monitor people and goods. Also, these cameras are helping security intelligence agencies to identify terrorists or criminals in public places. Computers attached with a fingerprint scanner and face-recognition technology have made it harder for fraudsters to use fake identities and take government benefits using someone else's identity. Security systems have become so powerful with the introduction of computer technology and the Internet.

Publishing

Computers are one of the first choices when it comes to publication. Computers are mainly used for designing newsletters, novels, posters, magazines, or newspapers, etc. They are suitable for almost every type of publication. Computers can be seen in both types of publishing methods, either its hard-copy or e-books. Apart from this, computers play a vital role in blogging and writing articles on websites.

Weather Forecasting

Weather forecasting is never easy for humans because it depends on many factors that are continually changing. It is almost impossible for humans to predict the weather without using a computer. The weather forecasting process involves complex computation and monitoring of data from satellites and many other technological devices. The computer has made it a little easier to predict weather conditions because it can process information from different sources and make complex calculations related to it, which are necessary for forecasting. Computers process enormous amounts of meteorological information during weather forecasting.

Communication

Computers have become one of the primary sources of communication. Modern computers come with a built-in webcam and microphone to make use of communication easier. People can use software like Skype and Hangout to connect with other people over the Internet. Because of the videoconferencing feature, people can connect with audio and video. Computers help families connect to their relatives, businesses to organize meetings, and companies to take interviews, between two different locations that are too far. Apart from this, older communications methods such as emails are also still used widely.

Unit 3

COMPUTER GENERATIONS

We had learned in a previous blog how inventions were made in the history of computers. So in today's blog, I will share with you about the generation of the computer.

So let's start

Generations are:

- 1. First Generation Computer (1940-1956)
- 2. Second Generation Computer (1956-1963)
- 3. Third Generation Computer (1964-1971)
- 4. Fourth Generation Computer(1971-Present)
- 5. Fifth Generation Computer(Present and Beyond)

1. FIRST GENERATION COMPUTER: Vacuum Tubes (1940-1956)

The first generation of computers is characterized by the use of "Vacuum tubes" and it was developed in 1904 by the British engineer "John Ambrose Fleming". A vacuum tube is an electronic device that is used to control the flow of electric current in a vacuum. It is used in CRT(Cathode Ray Tube) Tv, Radio, etc.

The first general-purpose programmable electronic computer was the ENIAC (Electronic Numerical Integrator and Computer), built by"J Presper Eckert and John V Mauchly at the University of Pennsylvania. The ENIAC was 30-50 feet long, 30 tons weighted, contained 18000 vacuum tubes, 70000 registers, and 10000 capacitors, and it required 150000 watts of electricity, which makes it very expensive.

Later, Ekart and Mauchly developed the first commercially successful computer name UNIVAC(Universal Automatic Computer) in 1952.

Examples are **ENIAC**(Electronic Numerical Integrator and Computer), **EDVAC**(Electronic Discrete Variable Automatic Computer), **UNIVAC-1**(Universal Automatic Computer-1)

ADVANTAGES

- These computers were designed by using vacuum tubes.
- These generations' computers were simple architecture.
- These computers calculate data in a millisecond.
- This computer is used for scientific purposes.

DISADVANTAGES

- The computer was very costly.
- Very large in size.
- It takes up a lot of space and electricity
- The speed of these computers was very slow
- It is used for commercial purposes.
- It is very expensive.

- These computers heat a lot.
- Cooling is needed to operate these computers because it heats up very quickly.

2. SECOND GENERATION COMPUTER: Transistors (1956-1963)

The second generation of computers is characterized by the use of "transistors" and it was developed in 1947 by three American physicists "John Bardeen, Walter Brattain, and William Shockley".

A transistor is a semiconductor device used to amplify or switch electronic signals or opens or close a circuit. It is invented in bell labs, The transistors become the key ingredient of all digital circuits, including computers.

The invention of transistors replaced the bulky electric tubes from the first generation of computers.

Transistors perform the same functions as a Vacuum tube, except that electrons move through instead of through a vacuum. Transistors are made of semiconducting materials and they controlled the flow of electricity.

It is smaller than the first generation of computers, it is faster and less expensive related to the first generation of computers. The second-generation computer has a high level of programming

languages, including FORTRAN (1956), ALGOL(1958), and COBOL(1959).

Examples are PDP-8(Programmed Data Processor-8), IBM1400(International business machine 1400 series), IBM 7090(International business machine 7090 series), CDC 3600(Control Data Corporation 3600 series)

ADVANTAGES:

- It is smaller in size as compared to the first-generation computer
- It used a less electricity
- Not heated as much as the first-generation computer.
- It has better speed

DISADVANTAGES:

It is also costly and not versatile

- still, it is expensive for commercial purposes
- Cooling is still needed
- Punch cards were used for input
- The computer is used for the particular purpose

3. THIRD GENERATION COMPUTER: Integrated Circuits (1964-1971)

The third generation of computers is characterized by the use of "Integrated Circuits" it was developed in 1958 by "Jack Kilby". The integrated circuit is a set of electronic circuits on small flat pieces of semiconductor that is normally known as silicon. The transistors were miniaturized and placed on silicon chips which are called semiconductors, which drastically increased the efficiency and speed of the computers.

These ICs (integrated circuits) are popularly known as chips. A single IC, has many transistors, resistors, and capacitors built on a single slice of silicon.

This development made computers smaller in size, low cost, large memory, and processing. The speed of these computers is very high and it is efficient and reliable also.

These generations of computers have a higher level of languages such as Pascal PL/1, FORTON-II to V, COBOL, ALGOL-68, and BASIC(Beginners All-purpose Symbolic Instruction Code) was developed during these periods.

Examples are NCR 395(National Cash Register), IBM 360,370 series, B6500

ADVANTAGES:

- These computers are smaller in size as compared to previous generations
- It consumed less energy and was more reliable
- More Versatile
- It produced less heat as compared to previous generations
- These computers are used for commercial and as well as general-purpose
- These computers used a fan for head discharge to prevent damage
- This generation of computers has increased the storage capacity of computers

DISADVANTAGES:

- Still, a cooling system is needed.
- It is still very costly
- Sophisticated Technology is required to manufacture Integrated Circuits
- It is not easy to maintain the IC chips.
- The performance of these computers is degraded if we execute large applications.

4. FOURTH GENERATION OF COMPUTER: Microprocessor (1971-Present)

The fourth generation of computers is characterized by the use of "Microprocessor". It was invented in the 1970s and It is developed by four inventors named are "Marcian Hoff, Masatoshi Shima, Federico Faggin, and Stanley major". The first microprocessor named was the "Intel 4004" CPU, it was the first microprocessor that was invented.

A microprocessor contains all the circuits required to perform arithmetic, logic, and control functions on a single chip. Because of microprocessors, fourth-generation includes more data processing capacity than equivalent-sized third-generation computers. Due to the development of microprocessors, it is possible to place the CPU(central processing unit) on a single chip. These computers are also known as microcomputers. The personal computer is a fourth-generation computer. It is the period when the evolution of computer networks takes place.

Examples are APPLE II, Alter 8800

ADVANTAGES:

- These computers are smaller in size and much more reliable as compared to other generations of computers.
- The heating issue on these computers is almost negligible
- No A/C or Air conditioner is required in a fourth-generation computer.
- In these computers, all types of higher languages can be used in this generation
- It is totally also for the general-purpose
- less expensive
- These computers are cheaper and also portable

DISADVANTAGES:

- Fans are required to operate these kinds of computers
- It required the latest technology for the need of making microprocessors and complex software
- These computers were highly sophisticated
- It also required advanced technology to make the ICs(Integrated circuits)

5. FIFTH GENERATION OF COMPUTERS (Present and beyond)

These generations of computers were based on **AI**(Artificial Intelligence) technology. Artificial technology is the branch of computer science concerned with making computers behave like humans and allowing the computer to take its own decision currently, no computers exhibit full artificial intelligence (that is, are able to simulate human behavior).

In the fifth generation of computers, VLSI technology and ULSI (Ultra Large Scale Integration) technology are used and the speed of these computers is extremely high. This generation introduced machines with hundreds of processors that could all be working on different parts of a single program. The development of a more powerful computer is still in progress. It has been predicted that such a computer will be able to communicate in natural spoken languages with its user.

In this generation, computers are also required to use a high level of languages like C language, c++, java, etc.

Examples are Desktop computers, laptops, notebooks, MacBooks, etc. These all are the computer which we are using it.

ADVANTAGES:

- These computers are smaller in size and it is more compatible
- These computers are very powerful and cheaper in cost
- It is obviously used for the general purpose
- Higher technology is used
- Development of true artificial intelligence
- Advancement in Parallel Processing and superconductor technology.

DISADVANTAGES:

- It tends to be sophisticated and complex tools
- It pushes the limit of transistor density.

Unit 4

Concept of social media

What Is Social Media?

Social media facilitates the sharing of ideas and information through virtual networks. From Facebook and Instagram to Twitter and YouTube, social media covers a broad universe of apps and platforms that allow users to share content, interact online, and build communities. More than 4.7 billion people use social media, equal to roughly 60% of the world's population.1

Today, social media messaging apps and platforms are the most commonly used sites worldwide. In early 2023, 94.8% of users accessed chat and messaging apps and websites, followed closely by social platforms, at 94.6% of users. Search engine sites were next, with 81.8% of users accessing them.2

KEY TAKEAWAYS

- Social media is a digital technology that facilitates the sharing of text and multimedia through virtual networks and communities.
- More than 4.7 billion people around the world use social media.
 - In 2022, the number of social media users worldwide grew by 137 million, or about 3%.1
- The largest social media platforms are Facebook, YouTube, WhatsApp, Instagram, and WeChat.
- Social media typically features user-generated content and personalized profiles that lend themselves to engagement via likes, shares, comments, and discussion.

How Did Social Media Evolve?

Social media originated as a way to interact with friends and family but soon expanded to serve many purposes. In 2004, MySpace was the first network to reach one million monthly active users.3

Social media participation exploded in the years that followed with the entry of Facebook and Twitter. Businesses gravitated toward these platforms in order to reach an audience instantly on a global scale.

On average, global users spent 2.24 hours each day on social networks in 2020, the highest across almost any media type.2

According to Global Web Index, 46% of internet users worldwide get their news through social media platforms. That compares to 40% of users who view news on websites. Gen Z and Millennials were most likely to view news on social media sites versus other generations.2

Social media plays a key role in businesses' marketing strategies given the sheer amount of time individuals spend each day on social platforms and apps. At the same time, social media is an ever-changing field. New apps such as TikTok, Signal, and Clubhouse have joined the ranks of <u>established social networks</u> like Facebook, YouTube, Twitter, and Instagram.

What Are the Types of Social Media?

Social media platforms can be categorized according to the interests of their users and their purposes. There are platforms that appeal to video game players, social gamers, video sharers, professional business networks, virtual worlds, review platforms, and beyond.

People use various social media applications to network career opportunities, find others across the globe with like-minded interests, and share their political views. Entertainers and politicians use social media to engage with constituents and voters.

For businesses, social media has become a key tool. Companies use the platforms to find and engage with customers, drive sales through advertising and promotion, gauge consumer trends, and offer customer service or support.

Social media's ability to collect information helps businesses to fine-tune their marketing campaigns and conduct market research. It helps companies promote products and services as it enables the distribution of targeted, timely, and exclusive sales and coupons to potential customers. Further, social media can help build customer relationships through loyalty programs linked to social media.

What Are the Benefits of Social Media?

Social media platforms allow people to access information in real-time, to connect, and to find niche communities. It has helped many individuals find common ground with others online, making the world seem more interconnected and within reach.

On the other hand, social media is prone to spreading disinformation, creating polarization, and even causing harmful psychological effects.

Still, according to a 2019 survey by Pew Research Center, people's use of social media is correlated with having more friends and more diverse personal networks, especially within emerging economies.4 For 80% of teenagers, social media allows them to feel more connected to peers, according to a 2022 Pew Research Center survey of U.S. teens ages 13 to 17. Overall, one in three said that social media has had a mostly positive effect on them, while 59% said it had neither a positive nor a negative effect.5

Businesses are also using <u>social media marketing</u> to target their consumers, build a loyal fan base, and create a culture behind their brands. According to Facebook, more than 200 million small businesses use their platform for marketing purposes.6 Separately, 90% of marketers say they use Facebook for promotion.7

In 2022, social media and search advertising spending made up roughly 55% of overall ad spending globally. It is also the fastest-growing category across advertising channels.8

What Are the Top Social Media Sites?

Facebook is the largest social media platform in the world with 2.96 billion users. Here are the figures for the most popular social media websites as of January 2023:

- 1. Facebook (2.96 billion users)
- 2. YouTube (2.51 billion users)
- 3. WhatsApp (2 billion users)
- 4. Instagram (2 billion users)
- 5. WeChat (1.31 billion users)
- 6. TikTok (1.05 billion users)
- 7. Facebook Messenger (931 million users)
- 8. Douyin (715 million users)
- 9. Telegram (700 million users)
- 10. Snapchat (635 million users)

Interestingly, two sites that are especially well-known in the U.S., Twitter and Pinterest, don't make the top 10 list globally. Twitter is 14th, with 556 million users worldwide, while Pinterest is 15th with 445 million users.

Unit 5

Writing for Website

Websites require a unique style of writing. Novelists paint a picture with words. Reporters report the news with dramatic flair. Academics explain complex ideas in context with citations. Web content writers share information as succinctly as possible.

People consume websites differently than other forms of media: they don't read; they skim. They will read only about 20 percent of the words on the average page.

How do you make your website easy for users to digest?

Be concise

Do not say in 150 words what could be said in 75. Do not say in 75 words what could be said in 30.

Write simply

Long sentences with complex structures that endeavor to explain in complicated terms a topic that could otherwise be described in a more straightforward manner are best avoided. Use simple sentences.

Avoid "marketingese"

Neutral language is easier to read and understand than subjective and boastful text. Be clear and direct.

Use the "Inverted Pyramid" style of writing

Put the essential and most interesting information at the beginning. Include additional information in order of diminishing importance.

Use keywords

Use terms that are commonly used to describe your topic. Avoid using proprietary terms and abbreviations as much as is possible.

Use headings

Break up your text with brief but descriptive headings and subheadings so users can find information faster.

Break up different ideas into different paragraphs

Long, dense blocks of text are intimidating to readers. Several short paragraphs are preferable to a single long paragraph.

Make your text skim-friendly

Use bulleted lists in place of long series or text lists.

Highlight only as necessary

Use bold very sparingly to draw attention to an important point.

Use the proper case

Sentence case is much easier to read than uppercase. To emphasize an important point, use bold.

Make links easy to identify

Links should be a consistent color and style. Do not change the color of a link to make it stand out. Do not underline any text since it may be confused for a link.