

**DVDMM 201**

**Digital Ecosystem and Social Media  
Applications- II**

**School of Vocational Studies**



**उत्तराखण्ड मुक्त विश्वविद्यालय**

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Copyright © Uttarakhand Open University, Haldwani, Nainital  
Edition- 2021, Pre-Publication copy for Limited Circulation, **ISBN:**  
Publication- Uttarakhand Open University, Haldwani, Nainital.  
E- Mail: studies@uou.ac.in  
Printer:

## D. Voc. (Digital Marketing & Management)

### DVDMM 201 Digital Ecosystem and Social Media Applications- II

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## UNIT-1

### INTRODUCTION TO DIGITAL MARKETING- II

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#### **1.1 INTRODUCTION**

Digital marketing has now become a buzzword. It is a marketing being largely used to promote products or services and to reach consumers using digital channels. It includes display advertising, search engine marketing, social media marketing, mobile phones, and many other forms of digitalized media. The way digital marketing offerings are becoming progressive, the impact of their efforts are being felt more on India's traditional retail formats. A significant area of the trade is occupied by local baniya or mom-and-pop stores, the retail sector is experiencing a good deal of churn as physical retailers take new and elaborate measures to stay up with their online competitors. This paper analyses the state of normal retail and digital selling quantifies the degree of danger e-stores are posing to ancient retail establishments and whether or not the latter is going to be ready to adapt to digital selling on their business models and baselines.

The era of Digital marketing makes use of electronic devices such as personal computers, smartphones, tablets, cell phones to engage with stakeholders. The developed nations already had their edge years before the dot com boom. This trend was observed around the world, where the majority of online sales were accounted for by the travel industry. The incorporation of information technology has enabled various sectors and areas better arrangements and performance. This trend was determined around the world, wherever the bulk of on-line transactions were mainly accounted for by the travel business. The incorporation of technology has enabled varied sectors and areas of higher arrangements and performance.

The young generation comprises internet-savvy and driven by western influences in fashion, food, and alternative life-style selections is one of the most important driving forces of Digital selling. Large and successful retailers of international levels like Wart-Mart, Sainsbury, Metro AG, etc. have proved a good chunk of their turnover towards making retail operations more technology and information oriented. A majority of the organized retail formats in India are showing encouraging response. The organized marketing in India has additionally recognized the fact that if they require to survive, grow, and stay an inability with the competitive markets, they need to integrate the hardware and innovative technology as it has become the essentialness in marketing for higher operative efficiencies ensuring enlarged profits. The new generation is contributing mostly to digital promoting sales, in the main attributable to peer pressure, growing aspirations, rising careers, and of course, to pace up with the latest trends in every fashion and digital device.

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## **1.2 OBJECTIVES**

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After the successful completion of this unit, you will be able to-

- Understand the concept of digital marketing.
- Define digital marketing is a boon or a bane.
- Explore diagnosis of the present website and business.
- Categorization of digital marketing for the business.
- Know about adapting digital change to the risk context.
- Define the concept of digital risk management.
- Identify the effectiveness of digital marketing and its repercussions on retail formats.

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## **1.3 DIGITAL MARKETING A BOON OR A BANE**

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### **[1] Digitalization a Boon for Organized Retailing**

Digital promotion is that the utilization of electronic media by the marketers to push the product or services into the market. The objective of digital promotion is attracting customers and permitting them to act with the whole through digital media. This text focuses on the importance of digital promotion for each marketer and shoppers. Digitalization will be a good manner for tiny businesses to extend their sales and widen their reach. It is also convenient for

shoppers, UN agency should purchase at their convenience, while not having to go away their homes or pay the day fighting queues at the shopping centre to choose up the most effective deals. However, digitalization has created a helpful platform for digital retailing in the following ways:

**[A] Selling online-** Selling on-line suggests learning new ways of managing customers, promoting your product, and fulfilling your orders. You'll be able to keep your prices lower, reach a wider audience and do business 24/7, having time to concentrate on rising your product and services and your client expertise rather than being on the shop floor anticipating shoppers. However, having an internet store will increase the shoppers on your ancient commerce in addition; as the crowd currently is ready to search you on-line and see what product you're giving an offering.

**[B] Faster Information-** Digital media is a faster medium to float the information among the public/expected customers. However, digital media will unfold unhealthy data for a couple of business even as quickly because it will unfold smart. A smartphone with an updated camera or video-enabled features or a Facebook standing update that has an organization secret can be posted online minutes by just a touch leading to the destruction of the goodwill of the business, which beforehand was cleared up without any mess.

**[C] Greater Reach-** Digital media suggests that companies can reach further customers than ever before. A simple promotion that has a giveaway or a free gift can earn a business a full bunch or thousands of Facebook fans and email and text message subscribers, meaning that the business can send a message to those shoppers with merely a click of a button. However, digital media conjointly implies that those shoppers will reach back. Through negative comments on your Facebook page and different other social networking sites, customers can use digital media to find the reviews and the grievance if any worldwide.

**[D] Technology-** Usage of the latest technology in digital media has provided a new scope to support the media. New technology will associate in nursing quality for your business after you adopt smartphones and laptops to use digital media, you furthermore may completely influence different areas of your business. Let's say, such mobile technology makes communication among staff abundant easier. However, new technology is pricey and typically it doesn't have the positive impact its champions suppose it'll have. An initiative was taken by the variety of firms to give its staff home computers to have a positive influence on the corporate on-line. However, the program extremely all over up inflicting support and tax issues for the businesses and staff.

**[E] Options-** Thanks to digital media, businesses currently have more choices that they will choose between once seeking to induce word out concerning their businesses, rather than selecting among a TV or radio business or a print promotion, they will currently produce media



that's a mixture of audio, visual, text and interactive media. This mixed media will charm to a bigger audience with differentiated preferences.

## **[2] Digital Marketing a Bane for Organized Retailing-**

**[A] Privacy-** It is simple to gather plenty of private info from a shopper employing a digital selling approach, typically too straight forward. Since all online transactions are recorded, it's comparatively straightforward to form an internet profile of the customer and use that to send targeted advertisements. However, several can agree that this can be an intrusion on a consumer's right to privacy, and it's one thing that's heavily regulated in several countries. This implies new businesses going to establish an internet presence through digitalization ought to remember the legislation that applies, as mistakes may be expensive each in terms of fines and client trust.

**[B] Security-** Another negative effect of e-commerce is its effect on consumers' security. Online transactions square measure inherently insecure than those conducted face to face as a result of there is not any guarantee that the person creating the payment is that the actual owner of the master card used. At an identical time, once the client inputs the payment data they risk a third party intercepting it if the website does not go with the adequate security measures, giving rise to master card fraud and other fraud. Merchants have to be compelled to bear in mind the risks electronic transactions carry and work towards securing the systems to the best standards.

**[C] Price Wars-** Merchants who used the physical merchandising concept could typically realize merchandising on-line a very competitive marketplace. Their product measure displayed aboard competitive offers, typically from completely different countries or larger retailers with access to raised wholesale costs. this may have an effect on the distributor negatively, as they can't sell the maximum amount as they expected to really create a profit, or the consumer's once on-line store execute to become additional competitive or product square measure purchased from illegitimate retailers as a result of that they had the most effective value.

**[D] Returns and Complaints-** Selling online means usually a higher return rate on products than when the purchase was conducted in person. This is due partially to the actual fact that customers haven't seen the products head-to-head before purchase, however additionally to the actual fact that a lot of obtainers (web shoppers} buy things on impulse, and by the time they receive them at their home they need modified their mind and create use of favourable comeback policies. Whereas an enormous distributor wouldn't have any drawback accommodating this, it may be extremely tumultuous for a tiny low business with restricted stock management.

**[E] Why in Retail attention alone is not enough?** Driving sales takes more than just driving attention. While retailers have always specialized in getting to know their customers, the increased availability of communication and transaction channels is posing some unique challenges for brands. Consumers do most of their research at home on desktops or tablets and use mobile devices to make purchase decisions when in-store.

**[F] A responsive experience is social, and data-driven-** The rapid changes in customer adoption of mobile and social are strong reasons to re-evaluate commerce strategies. Customers are accustomed to beginning a task on one device and finishing it on another, and there's a revived specialization in retailers' supporting user tasks and fulfilling orders across channels.

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## 1.4 *DIAGNOSIS OF THE PRESENT WEBSITE AND BUSINESS*

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The business diagnosis is a methodology of company valuation that allows an in-depth analysis of the main areas of management of a business. With a deeper understanding of the organization, it is possible to solve problems in a practical way and directed to what really matters and without spending time on little relevant items. We use a method of questions, answers and feedbacks to evaluate the 5 main areas that every business has:

- Strategy
- Finances
- Marketing
- Human Resources
- operations

### **Benefits of making a business diagnosis-**

- **Understand which areas are most important to your business** - not everyone realizes this, but each company has more important areas and, depending on this importance, it must create action plans and strategies based on what is most important.
- **Compare your current performance** - There are usually two very useful comparisons here, with your minimum recommended performance and the minimum you want. The ideal is that you are always above both, but understanding each of these levels can direct what needs more attention and what can wait a little longer.
- **Discover the degree of maturity of your company** - understand if you are on a very amateur level or if you are already mature enough to pursue new goals. This understanding can greatly help in establishing business strategies and purpose.
- **Understand what needs to be done and where** - just knowing the overall performance of your company may not be enough, but with the business diagnosis it is possible to know exactly where the errors are and what your company is failing to do to reach a new management level.

## What is analyzed in a business diagnosis?

This will depend on business to business, but in general; there are some items that need to be analyzed in any business or reality because they are part of the 5 large areas of management. I am going to separate which are the main areas and sub groups (within those areas) that we analyze in our business diagnostic worksheet:

- Strategy- Such as: short-term, medium term, long term, and environmental analysis.
- Finances- Such as: financial control, financial planning, contribution margin and profitability, and financial indicators.
- Marketing- Such as: marketing planning, online media, offline media, and customer relations.
- Human Resources- Such as: recruitment and selection, training and development, and retaining talent.
- Operations- Such as: processes, quality, and logistics.

For each of them, we use a structure of some standardized questions, answers, and feedback.

## How to make a diagnosis in practice?

Now that we understand the mechanics and functioning of a business diagnosis, I can list the key steps you need to take, regardless of which tool you use:

- Step 1- Ask the right questions (according to the reality of your business) - this is one of the advantages of using a ready-made business diagnostic worksheet, you do not have to think about the entire structure of questions and areas. Below I show an example of questions for the HR area, sub recruitment and selection group:
- Step 2- Answer the questions in the most honest way possible - the paper and spreadsheet will always accept any response you give. So, the more realistic you are, the better it will be for your analysis and for the action plans that will be created from it.
- Step 3- Analyze your result - see the most important areas, making a good comparison between your current score, the recommended minimum and the desired score
- Step 4- Develop strategies and action plans - to optimize those areas and sub areas that need more attention (urgency) and which are performing worse.

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## 1.5 **CATEGORIZATION OF DIGITAL MARKETING FOR THE BUSINESS**

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Ideally, you should use a mix of different types of digital marketing in order to reach your audience through various channels. In this article, we have collected the most frequent types of digital marketing of our times that can help you achieve the highest success rate. They are as follows:

- Search engine optimization (SEO)

- Search engine marketing (SEM)
- Social media marketing (SMM)
- Content marketing
- Email marketing
- Online advertising
- Landing page marketing
- Smartphone marketing
- Affiliate marketing
- Viral marketing

### **[1] Search Engine Optimization (SEO)-**

Search engine optimization (SEO) is probably the first thing that comes to mind when people think about different types of digital marketing. Online businesses basically live at the mercy of Google, Bing, Yahoo, and other search engines. If you are doing SEO right you can attract significant organic traffic to a website. The goal of SEO is to optimize content in a way that makes it appear among the first results on a search engine results page (SERP). There are several methods you can use to rank high on a SERP, such as building a mix of inbound and outbound links or optimizing the content for specific keywords. Probably the hardest thing about SEO is to constantly follow the changes of search engine algorithms and update your strategy and methods accordingly. SEO is essential for any website, as these days every business optimizes their content for search engines. Therefore, without SEO, it's basically impossible to stay competitive in a market.

### **[2] Search Engine Marketing (SEM)-**

SEO is not the only way to increase incoming traffic from search engines. Search engine marketing (SEM) makes it possible to advertise a product in search engines and make it appear among paid search results. Search engines usually display paid results above organic results on SERPs. They almost look the same as organic results with only small differences in appearance, for instance, Google shows a small “Ad” label next to the related URL.

The most frequently used paid search services are Google AdWords and Bing Ads. They allow you to buy ad space based on target keywords, location, viewer demographics, and other data. Actually, search engine marketing is a pretty effective method, as search engines only show your ad to the audience you want to target. In most cases, you need to pay for SEM results according to the pay-per-click (PPC) advertising model, meaning you are only charged when someone clicks your ad.

### **[3] Social Media Marketing (SMM)-**

Without a doubt, social media is the queen of 21st-century digital content. Therefore, it's also one of the most important types of digital marketing you need to focus on—especially if you

want to promote a B2C business. Social media is not simply a marketing channel but also a way for people to keep in touch with their friends and family, get the latest news, or follow topics they are interested in. There are plethora of social media platforms you can choose from, such as Facebook, Twitter, LinkedIn, Instagram, and many others. You need to find the ones that are relevant to the niche you target and promote the business there.

Sharing quality content on social media sites is an excellent way to engage viewers and position a brand as an authority in a specific niche. It's also important to place social sharing buttons below each blog post and content page so that visitors can share it across their network. In addition, every social media platform offers different solutions for organic and paid advertising. Paid Twitter and Facebook ads, hashtag campaigns, and influencer marketing are among the most popular methods of social media marketing.

#### **[4] Content Marketing-**

Content marketing is another type of digital marketing you can use to promote a business online. In fact, content marketing is an indirect way of marketing, as you publish content that the audience finds naturally while browsing the web. The main goal of content marketing is to make viewers interact with the content by reading, sharing, and commenting on it. You can use it together with other types of digital marketing such as SEO or SEM as well. For instance, you can build the content around targeted keywords in order to achieve an optimal result.

High-quality content also allows you to persuade an audience about the expertise of a business in a certain niche. Gaining the trust of customers is one of the most important long-term goals of digital marketing. You can publish shareable content either in the form of blog posts, white papers, reports, or webinars or by guest blogging in popular publications in the same niche.

#### **[5] Email Marketing-**

Email marketing is a different kind of engagement, as you connect with customers within their own mailboxes. Although email marketing is one of the oldest types of digital marketing, it's still very successful. It's an excellent way to increase brand loyalty and upsell to existing customers. According to the Radicati market research group's latest email statistics report (2017-2021), the number of emails sent and received per day by businesses is still growing, at an average rate of 4.4%.

There are many different ways you can reach out to customers through email marketing. Besides creating newsletter campaigns, you can send them confirmation emails, thank-you emails, and email notifications about product updates. If you promote a local business, event invitations are also an excellent way to engage the local audience. These days there are many awesome tools you can use to run professional email campaigns, from marketing automation platforms such as MailChimp to newsletter plugins for popular content management platforms like WordPress.

## **[6] Online Advertising-**

Digital marketers have been using online advertising since the first days of the web. Displaying banners or ads on other websites belonging to the same niche is the most common form of online advertising. You can use online platforms such as Google AdSense that allows you to automatically serve ads on other content sites. Ad networks usually let you configure the parameters of the sites your ads appear on based on keyword, location, audience demographics, and other data.

Bigger online magazines frequently have their own advertising departments as well. Therefore, it can also be a good solution to contact them and buy an ad space on their website. Some niche magazines, such as A List Apart web design magazine, also have sponsorship programs that allow you to feature a brand, logo, and other visuals on their platform for a certain period of time (usually a week).

## **[7] Landing Page Marketing-**

Targeted landing pages can work excellently with other types of digital marketing and increase conversion rates significantly. In the broader sense, a landing page is any web page on which visitors first land when they arrive at a website. In this sense, homepages frequently function as landing pages as well. However, many brands create specific landing pages for their marketing campaigns, too. Digital marketers link landing pages to ads displayed as banners on other websites or appearing on search engine result pages. Thus, when users click an ad they are directed right to the landing page designed for the specific marketing campaign. There are several tricks you can use to create a converting landing page such as eye-catching headlines, a clean and mobile-friendly design, and highly visible call-to-action buttons. Below, you can see the landing page of the Slack messaging app on which you can see all the necessary elements of a well-performing landing page:

## **[8] Smartphone Marketing-**

People use their smartphones all the time, therefore these days smartphone marketing is also among the most important types of digital marketing. This is especially true if your target audience is the younger generation. In fact, you have many options to reach your prospects through their smartphones. According to the recent report of the Esendex business communication provider, text messages have had a 94 percent global average open rate in 2018. As a result, smartphone marketing is an incredible opportunity to promote a business online.

Besides sending text messages to subscribers, you can further engage an audience by providing them with free mobile apps for Android and iOS devices. Your app can also perform specific actions that increase visibility. For instance, it can send users real-time push notifications that appear on their smartphones when new content is available on the website. Popular messaging

platforms such as Messenger and Telegram also allow you to create marketing bots with which you can acquire new customers in a human-centered way.

### **[9] Affiliate Marketing**

Affiliate marketing makes it possible to reduce your marketing workload by outsourcing it to external service providers. With affiliate marketing, you only pay for conversions, after your affiliate closed a deal and the customer purchased the product. Affiliate marketers do all the related marketing activities from banner placements to landing pages. Probably the best thing about affiliate marketing is that it has no upfront cost and you can decide on the terms and rates you pay to the affiliates.

Probably the most notable online affiliate program is Amazon Associates that lets anyone promote Amazon's products and earn a commission after closed deals. Smaller businesses can also make use of affiliate programs—it's an especially popular type of digital marketing in the tech sector. However, you should only start an affiliate program if you have the means to properly monitor and educate the affiliates.

### **[10] Viral Marketing**

Viral marketing makes use of all types of digital marketing channels. The essence of viral marketing is to create a post, video, meme, or another short-form content type that spreads across the web like a virus. To make a successful viral marketing campaign, you need to promote the same content across multiple channels such as Twitter, Youtube, blog posts, and newsletters over a short period of time.

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## ***1.6 ADAPTING DIGITAL CHANGE TO THE RISK CONTEXT***

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Digital transformation creates tremendous business opportunities along with new forms of digital risk. Digital risk refers to unwanted and often unexpected outcomes stemming from digital transformation and the adoption of related technologies. Cyber security risk, third-party risk, business continuity risk, data privacy risk and other forms of digital risk add to the uncertainty of achieving business objectives. Strategic business objectives including new operational efficiencies, business models and customer experiences are the driving force behind digital initiatives such as big data analytics, IoT and AI. But these initiatives have spawned eight types of digital risk that every organization must learn to manage.

- Cybersecurity- Risk of cyber-attacks, especially in the context of a growing attack surface and an increase in sophistication of attacks.
- Workforce/Talent- Risk related to the dynamic nature of today's workforce and
- the gig economy.

- Cloud- Risk due to changes in architecture, implementation, deployment and/or management of new digital business operations or IT systems.
- Compliance- Risks related to compliance requirements driven by new technology and the scope of data being created.
- Third-Party Risk- Inherited risk related to external parties.
- Process Automation- Risk related to changes in processes from automation.
- Resiliency- Risk to availability of business operations, especially after disruption.
- Data Privacy- Risks related to the ability to protect personal information.

## 1.7 DIGITAL RISK MANAGEMENT

To manage digital risk effectively, security and risk management teams must work together. When organizations align security and risk, they ensure:

- Visibility into the right information and appropriate business context.
- Insight to help them understand what is happening and determine the best response.
- The ability to take appropriate and timely action.

You know you need to focus on digital risk management, but where do you start? The question can be daunting, raising the possibility of initiatives that are overambitious, too disruptive or simply too long. Don't panic. Start by targeting just one of the eight key risk areas and focusing your efforts there. As you progress, you'll develop strategies to help protect your organization while enabling innovation. Keep in mind that many of these risks have overlapping consequences, so putting a solution in place for one can help address others, too.









|                  |   |  |  |   |  |   |   |   |
|------------------|---|--|--|---|--|---|---|---|
| <b>RISK AREA</b> | <br>MITIGATE CYBER ATTACK RISK | <br>MANAGE THIRD-PARTY RISK | <br>MANAGE DYNAMIC WORKFORCE RISK | <br>SECURE YOUR CLOUD TRANSFORMATION | <br>MODERNIZE YOUR COMPLIANCE PROGRAM | <br>MANAGE PROCESS AUTOMATION RISK | <br>COORDINATE BUSINESS RESILIENCY | <br>EVOLVE DATA GOVERNANCE AND PRIVACY |
| <b>FOCUS</b>     | Protect your digital business, customer information, brand and critical assets from cyber threats.                | Build, continually expand and safeguard a hyper-connected business ecosystem.                                  | Adapt to new digital paradigms for employee expectations, skills and needs.  | Manage risk as you move operations to new technology architectures.   | Meet today's regulatory challenges with an ongoing, programmatic approach.   | As your digital and automation strategies unfold, ensure built-in risk evaluation.                                      | Safeguard digital operations against a range of events.   | Protect key information assets.   |

Fig 1: Digital Risk Management

## 1.8 POINTS TO REMEMBER



- Digital marketing has now become a buzzword. It's a marketing being largely used to promote products or services and to reach consumers using digital channels.
- Digital promoting is that the utilization of electronic media by the marketers to push the product or services into the market.
- Digitalisation will be a good manner for tiny businesses to extend their sales and widen their reach.
- A negative effect of e-commerce is its effect on consumers' security. Online transactions square measure inherently insecure than those conducted face to face as a result of there is not any guarantee that the person creating the payment is that the actual owner of the master card used.
- The business diagnosis is a methodology of company valuation that allows an in-depth analysis of the main areas of management of a business.
- The diagnosis will help you to understand which areas are most important to your business, compare your current performance, discover the degree of maturity of your company, understand what needs to be done and where.
- You should use a mix of different types of digital marketing in order to reach your audience through various channels.
- Digital risk refers to unwanted and often unexpected outcomes stemming from digital transformation and the adoption of related technologies.
- To manage digital risk effectively, security and risk management teams must work together. When organizations align security and risk.

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## **1.9 GLOSSARY**

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- UN-United Nations
- SEO-Search engine optimization
- SEM-Search engine marketing
- SMM-Social media marketing
- SERP-search engine results page
- PPC- pay-per-click
- B2C-Business to Consumer

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## **1.10 CHECK YOUR PROGRESS**

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### **Part- A (Descriptive type questions)**

- a) What is the digital marketing?
- b) What are the benefits of digital marketing?
- c) Explain digital marketing is a boon or a bane.

- d) What are the benefits of the diagnosis of the present website or business?
- e) Explain categorization of digital marketing for the business.
- f) Define briefly the concept of digital risk management.

**Part- B (State whether the following sentences are true or false)**

- a) Digital marketing is a marketing being largely used to promote products or services and to reach consumers using digital channels. (True/False)
- b) Digital promoting is that the utilization of print media by the marketers to push the product or services into the market. (True/False)
- c) Digitalisation will be a good manner for tiny businesses to extend their sales and widen their reach. (True/False)
- d) The business diagnosis is a methodology of company valuation that allows an in-depth analysis of the main areas of management of a business. (True/False)
- e) The diagnosis will not help you to understand which areas are most important to your business. (True/False)
- f) Digital risk refers to unwanted—and often unexpected outcomes stemming from digital transformation and the adoption of related technologies. (True/False)

**Answer (Objective Type Question)-**

[a] True      [b] False      [c] True      [d] True      [e] False      [f] True

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## **1.12 SUGGESTED READINGS**

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## UNIT-2

# UNDERSTANDING DIGITAL CONSUMERS AND THEIR NEEDS

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2.1 INTRODUCTION

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2.2 OBJECTIVES

---

2.3 DIGITAL CONSUMERS: AN OVERVIEW

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2.4 CONSUMER BEHAVIOUR

---

2.5 DIGITAL INFLUENCE IN CONSUMER LIFE

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2.6 E-CONSUMER

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2.7 E-CONSUMER BEHAVIOUR

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2.8 POINTS TO REMEMBER

---

2.9 GLOSSARY

---

2.10 CHECK YOUR PROGRESS

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2.11 BIBLIOGRAPHY/ REFERENCES

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2.12 SUGGESTED READINGS

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### **2.1 INTRODUCTION**

A digital consumer may be defined as someone using mobile devices, and in a broad sense, as e-consumer, looking for and purchasing products on the Internet, taking advantage of the content published on-line, aware of themselves and of their needs, and keen on simplifying the decisions they need to make. A typical consumer of the digital era of today has access to many sources of information, functioning in an environment which offers many possibilities unknown in the pre-Internet age on the one hand, but also which is characteristic of chaos and an increasingly difficult decision making because of information overload. A consumer 'inhabiting' a virtual environment becomes more demanding and transfers their expectations to the real world, which forces enterprises to adapt to the emerging trends and challenges even if the on-line world is not their main domain of operation. The aim of the unit is to present the essence of the idea of digital consumer, to highlight the considerations related to the behavior

of digital consumers, and to describe the trends in their behavior that may pose a challenge to contemporary businesses.

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## **2.2 OBJECTIVES**

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After the successful completion of this unit, you will be able to-

- Define digital consumer.
- Explain the concept of consumer behaviour.
- Digital influence in consumer life.
- Know about e-consumers.
- Know about the behaviour of e-consumer.

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## **2.3 DIGITAL CONSUMERS: AN OVERVIEW**

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The term of digital consumer may be thus understood in a narrow sense, referring to a consumer using mobile devices (smartphones, tablets, laptops, etc.) or in a broad sense, denoting an e-consumer searching for and purchasing products on the Internet, taking advantage of the content published on-line, aware of themselves and of their needs, and keen on simplifying the decisions they need to make. Today, even the most innovative companies wonder how to make contact with consumers who are becoming better informed and more dispersed than ever before. In developed countries, technology is present in almost every aspect of people's lives, starting from weather applications, through on-line shopping, and ending with e-books and wearable.

In the case of developing markets, access to the Internet and to smartphones grows exponentially year by year, and on-line retail sales reaches volumes achievable so far only on highly developed markets. As for mobile technologies in developed countries such as the UK, Germany, Canada, laptop is still the most popular type of device, while in the case of developing countries like China, Russia, or Brazil, the main link with the on-line world is smartphone. Regardless of the means used to connect to the Internet, it is fair to say that digital consumer has become a global phenomenon. The behavior and preferences of such consumers, shaped mainly by the intense use of technology, evolve very quickly, so it is important to investigate the trends accompanying their behavior in order to be better prepared to satisfy the resulting needs, demands, and expectations.

### **Trends Shaping Digital Consumers**

A trend is a process of change that can be viewed from different perspectives: psychological, sociological, and economic. Trends usually emerge as a result of impact of a given environment in the economic, demographic, social, legal, political, and technological dimension. In the case of digital consumers, we are interested mainly in the trends that appear as outcomes of the

impact of technological factors. Among the global trends shaping the behaviour of digital consumers there are:

- Common access to the Internet
- Mobile technology
- ‘On-demand’ media
- Wearable technologies

The impact of the Internet increases with its range. On the one hand, it gives great opportunities, especially to the developing countries, but on the other hand, it leads to a growing risk of e. g. cybercrime or personal data theft. The development of mobile technology has made mobile phones advanced telecommunications centres. Apart from the basic functions, they also feature photo cameras, computing units, and offer mobile access to the Internet. Today, a mobile phone may become a city guide (when we download and use a special application), but it can be also used to make small payments (parking fees etc.). Apart from mobile phones, there are also other mobile devices that enjoy a high level of popularity; these include tablets or e-readers, which change the way we can benefit from education and culture. Some speak of an arrival of a “screen culture”, where screens are getting bigger and bigger (compared to the size of mobile phone screens), increasingly cheaper, permanently connected to the Internet, offering access to “on-line cloud” resources, more interactive and intuitive in use, and more user-friendly.

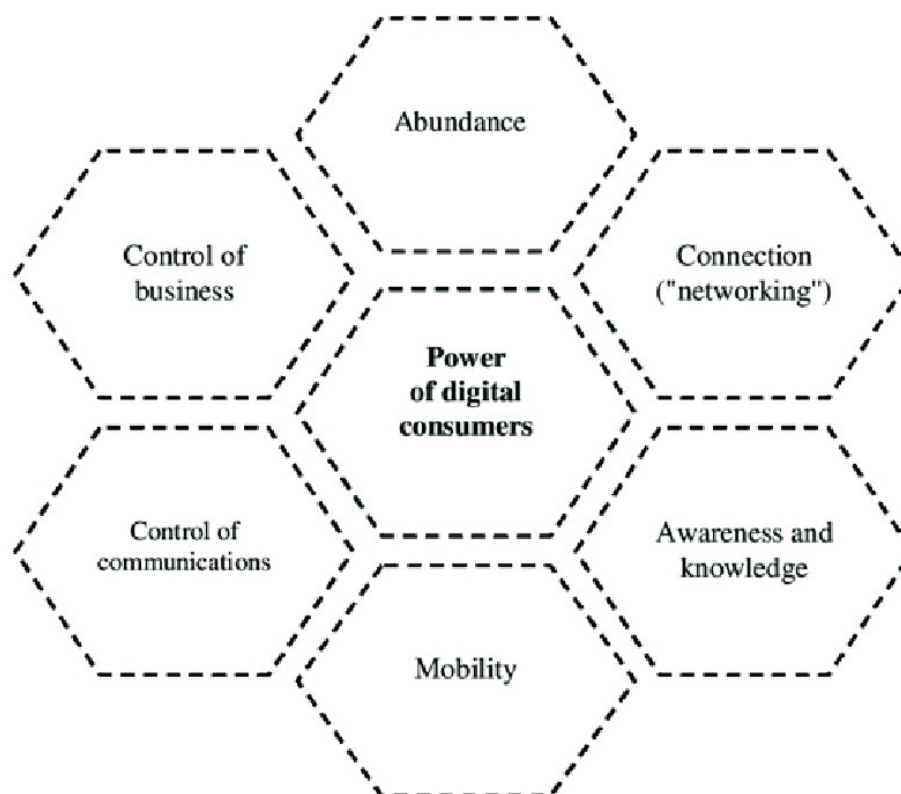


Fig1: Power of Digital Consumers

## Types of Digital Consumers

Digital consumers are not a homogeneous group, and although the way they use technology is common to them, the demographic variable and the lifestyles they live make them different. Consumerbarometer.com is a website that presents findings of a study conducted by TNS at Google's request (2014/2015) on how people from 51 countries across the world use the Internet; it divides digital consumers into four groups:

### Brand advocates-

In electronic commerce and online advertising, a brand advocate is a person, or customer who talks favourably about a brand or product, and then passes on positive word-of-mouth (WOM) messages about the brand to other people. A brand advocate is anyone who supports the company's growth. This includes:

- Customers: Customers are not affiliated with the company. This makes their support more genuine and influential to future clients.
- Employees: Employee advocates know everything about the business. Their inside knowledge combined with their relatable nature make them a powerful tool in advocacy.
- Business partners: Charities, organizations and other companies affiliated with the brand also influence purchasing decisions.
- Influencers: A well-known form of advocate, influencers extend a wider yet more targeted audience.

### Digital moms-

For marketers, mothers represent a very familiar buyer persona. It is no secret moms spend more time online than any other internet user population. But what kind of opportunities are there for a business to market to digital moms? Through social media, mothers connect not only with their children, but a vast network of actual friends. And because mothers are likely to react on social media, their posts hold the potential to provide organic marketing. Some things to consider when marketing to a mother are easy-to-use services and on-the-go products. Mothers are heavy multitaskers, so intuitive products or services that save time are in demand.

### Millennials-

Millennials are so named because they were born near, or came of age during, the dawn of the 21st century – the new millennium. As the first to be born into a digital world, members of this group are considered "digital natives." Technology has always been a part of their everyday lives – it is been estimated that they check their phones as many as 150 times daily – and serving them has been a major contributing factor to the growth of Silicon Valley and other technology hubs. Each of these groups behaves in a specific and individual way. Brand advocates are extroverts; they are trustworthy, and fluent in using the Internet. Their strong

presence and position across social media let them shape the image of products and brands. Brand advocates are keen on writing about brands.

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## **2.4 CONSUMER BEHAVIOUR**

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It is a globally accepted fact that in recent times, marketers have become dynamic and the consumer has control over the strategic decisions made by the insurance companies. Companies are put to challenge to understand the pulses of new age policyholders and their buying pattern. India, in this scenario is no exception. It is being a nation of diverse cultures and traditions, understanding the consumer's buying pattern become a hard task. With the advent of globalization and the sequel changes in the country, many Multinational Insurance Corporations have started making a foray into Indian insurance market due to its sky-scraping potential.

Business environment today is turbulent as never before and the service industry as promising as never before. In this era of intense competition where customer is the king, success depends a lot on the efficiency of the managers in delivering what they have promised and the responsibility lies on the organizations to develop such a culture where business ethics are followed, value for the services is provided and quality services are offered to achieve higher level of customer satisfaction. For achieving customer satisfaction understanding dynamic consumer behavior is essential. As true believers in the marketing concept marketer should try their best to meet needs of consumers.

Service firms should follow a proactive approach i. e. begin the service and satisfaction management process before they even come in contact with customers and also be reactive i. e. look forward for customers to complain, welcome them and tell them what to do. This is an attempt to develop a thought on how to focus on enabling and keeping promises in service firms because how promises are kept is a clear indication of how strong and for how long shall the customer relationship be. The service sector dominates the Indian economy today, contributing to more than half of the National Income. Since services are intangible in nature and cannot be checked before the purchase is actually made therefore, it is very critical to deliver what has been promised to the target customer. Consumer behaviour studies play an important role in framing marketing and in deciding marketing strategies.

Consumer behaviour is seen to involve a complicated mental process as well as physical activity (purchase decision). Consumer behaviour is a decision process and physical activity individuals engage in when evaluating, acquiring, using or disposing of goods and services. Consumer Behaviour reflects the totality of consumer's decisions with respect to the acquisition, consumption and disposition off goods, services, time and ideas by (human) decision making units.

Buyer Behaviour particularly is the study of decision-making units as they can buy for themselves or others. Thus, buying behaviour particularly involves collective response of



buyers for selecting, evaluating, and deciding and post purchase behaviour. Buyer behaviour is the study of human response to services and the marketing of products and services. Buyer behaviour researches continuously investigate a broad range of human responses including human affective, cognitive and behavioural responses. The buying behavior and purchase decisions are need to be studied thoroughly in order to understand, predict and analyse critical market variations of a particular product or service. The field of consumer behaviour is the broad study of individuals, groups or organisations and the process they use to select secure and dispose of products, services, experiences or ideas to satisfy needs and the impacts that these processes have on the consumer and society. Consumer behaviour studies are based on the buying behaviour of final consumers-individuals and households who buy goods and services for themselves. The collective behaviour of consumers has a significant influence on quality and level of standard of living. Buyer Behaviour is broadly defined by various scholars and researchers as:

- It is the behavior displayed by the consumers during the acquisition, use and disposition of products/services, time and ideas by decision making units.
- It is the body of knowledge which studies various aspects of purchase and consumption of products and services by individuals with various social and psychological variables at play.
- The process and activities people engage in when searching for, selecting, purchasing, using, evaluating and disposing of products and services so as to satisfy their needs and desires. The activities directly involved in obtaining, consuming and disposing of products and services, including the decision processes that precede and follow these actions.

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## **2.5 DIGITAL INFLUENCE IN CONSUMER LIFE**

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Digital Marketing refers to online marketing or internet marketing. Digital marketing not only essential for grabbing wide area for marketing but it also equally essential for customers as it provide number of opportunities to talk directly with customers. In the highly competitive market and technology advancement with the usage of internet it has shift the marketing strategies to digital marketing strategies and the way of dealing with the customers with the passage of time. Day by day it increases the use of digital marketing as consumer gets wide variety of products not only with in particular geographical boundaries but from all over the entire world. The term digital marketing has become popular over period of time.

Digital marketing market the product and services mainly on the internet but also on any digital medium like mobile phones. Marketing through digital medium it gives more satisfaction to the customers as they can ask queries and can also give suggestions related to any product and services. In digital market medium for communicating is much more convenient than

traditional marketing as medium of communicating is mainly through website, chat, Email, etc. To expand and grow any business worldwide digital marketing is one of the fast ways to develop as they use digital tools which makes marketing much easier. It reaches large number of customers from all over world in a smaller number of times. Through analytics it is very easy to measure efficiency of a campaign where as in traditional marketing it is very difficult to measure efficiency of a campaign. In digital market it is very easy to make changes and update information continuously from time to time according to their goals and services and with the help of internet customers at any place and at any time can go through the given information which is beneficial for them.

Today online shopping like Myntra provide various brands and it becomes convenient for customers to shop at any time at any place by just downloading one app by using internet, it also proves 30 days exchange or return policy which increases satisfaction level in the customers.

Today all most everyone rely on online shopping for each and every kinds of products weather it is grocery items or it is clothing, today everyone knows how to visit company website and refer to the particular product and make order of particular product and gives feedback. It is the right of each and every customer to get complete information related to every product nothing should be hidden from the customers as they can file complain for any product if they are cheated. With the other related products customers can make comparison and place order at any time according to their preferences, as digital marketing provides 24 hours services to the customers so that they can do shopping at any time whenever they are free. Now there is no need to take out time from busy schedule for the shopping as customers can do it at any time at any place without any fear as there is transparent pricing of the product and they can do comparison from many and buy product of least price.

Today digital marketing has a greater scope of expanding their business in the future as customers are much more satisfied by doing online shopping as they find digital marketing much safer than traditional marketing. Each and every income group of people do online shopping as there is different variety of products available at different prices and different payment methods also available which becomes more convenient for the customers to do online shopping. Today for every organization digital marketing becomes very crucial part in doing business as it not only increases profit margin of the organization but also expand the business globally. Customers become loyal towards product as they become more confident after getting each and every information of the product and they gives their feedback which generate good relationship between customers and sellers.

Digitalization plays an important role in today's competitive market as it involves exploring business model using digital technologies which reduces cost and expand business globally. It not only benefited to customers but it also reduces the tension of organization as there is no

fear of wear and tear or theft of goods as there is no fixed location of shop. It also ensures quality and reduces fraud as there is transparency in the business and there is highly competitive market so customers are free to make choice. There are various E-Commerce models such as:

- Business to Business E-Commerce (B2B) here both the parties engaged in the business.
- For example- Myntra deals with various brands.
- Business to Customers (B2C) here buyers and sellers of products and services do online transactions. For example-online shopping.
- Customers to Customers (C2C) here both the buyer and sellers are individual. For example- In OLX both the parties involved are individual they sell the old product which is of no use to him digitally by using internet to the one who find it more useful.
- Business to Government (B2G): It involves selling product and services to the government by using internet.

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## 2.6 *E-CONSUMER*

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A consumer is a person or a group who intends to order, orders, or uses purchased goods, products, or services primarily for personal, social, family, household and similar needs, not directly related to entrepreneurial or business activities. "Consumers, by definition, include us all;" President John F. Kennedy offered his definition to the United States Congress on March 15, 1962. This speech became the basis for the creation of World Consumer Rights Day, now celebrated on March 15. In his speech, John F. Kennedy outlined the integral responsibility to consumers from their respective governments to help exercise consumers' rights, including:

- The right to safety: to be protected against the marketing of goods which are hazardous to health or life.
- The right to be informed: to be protected against fraudulent, deceitful, or grossly misleading information, advertising, labelling, or other practices, and to be given the facts he needs to make an informed choice.
- The right to choose: to be assured, wherever possible, access to a variety of products and services at competitive prices; and in those industries in which competition is not workable and Government regulation is substituted, an assurance of satisfactory quality and service at fair prices.
- The right to be heard: to be assured that consumer interests will receive full and sympathetic consideration in the formulation of Government policy, and fair and expeditious treatment in its administrative tribunals.

A consumer is one that buys goods for consumption and not for resale or commercial purpose. The consumer is an individual who pays some amount of money for the thing required to consume goods and services. As such, consumers play a vital role in the economic system of

a capitalist economy. Without consumer demand, producers would lack one of the key motivations to produce: to sell to consumers. The consumer also forms part of the chain of distribution. The e-Customer explicitly uses Internet and a whole new set of novel abilities focused towards online shopping of products and services. This phenomenon relies on existence of two basic premises:

- Web-based services, including e-Commerce, that rely on complex, large scale systems consisting of thousands of computers, heterogeneous networks, and software components;
- Users, i. e. electronic consumers or e-Customers, who interact with the previously mentioned Web services unpredictably and stochastically.

As in the case of traditional, “brick-and-mortar” model of doing business, the highest priority task and a fundamental premise for the successfulness of the novel, “click-and-mortar” business model remains assuring e-Customers’ satisfaction. It is not a trivial task, because it is based on analysis of a complex mixture of various quantitative and qualitative factors and variables. Such multidisciplinary approach undoubtedly relies on a usage of a plethora of relevant models, mechanisms, techniques, software and hardware solutions and tools, etc.

In a narrow sense, a digital consumer may be defined as someone using mobile devices, and in a broad sense, as e-consumer, looking for and purchasing products on the Internet, taking advantage of the content published on-line, aware of themselves and of their needs, and keen on simplifying the decisions they need to make.

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## **2.7 E-CONSUMER BEHAVIOUR**

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Early e-shopping consumer research indicated that e-shoppers tended to be concerned mainly with functional and utilitarian considerations. As typical ‘innovators’ suggested that the e-consumer tended to differ from the typical traditional shopper. More recent research, on the other hand, casts doubt on this notion. Consumer purchase orientations in both the traditional world and on the Internet are largely similar and there is evidence for the importance of social interaction and recreational motives as demonstrated by virtual ethnography (webography), social networking sites and e-word of mouth (eWOM).

The study of e-consumer behaviour is gaining in importance due to the proliferation of online shopping. Consumer oriented research has examined psychological characteristic, demographics, perceptions of risks and benefits, shopping motivation, and shopping orientation. The technology approach has examined technical specifications of an online store, including interface, design and navigation, payment, information, intention to use, and ease of use. The two perspectives do not contradict each other but there remains a scarcity of published research that combines both.

### Factors influencing e-consumer behaviour

The basic model argues that functional considerations influence attitudes to an e-retailer which in turn influence intentions to shop with the e-retailer and then finally actual e-retail activity, including shopping and continued loyalty behaviour.

- e-Consumer attitude towards an e-retailer will be positively influenced by customer perceptions of e-retailer image.
- e-Consumer intentions to purchase from an e-retailer will be positively influenced by positive attitudes towards the e-retailer.
- Intention to shop with a particular e-retailer will be positively influenced by past Experience.
- e-Consumer trust in an e-retailer will positively influence intention to e-shop.
- e-Consumers' learning about an e-retailer web site will positively influence their intention to purchase.
- e-Consumer attitude towards an e-retailer will be positively influenced by social factors.
- e-Consumer attitudes towards an e-retailer will be positively influenced by e-interactivity.
- One of the most significant attractions of e-shopping is perceptions of convenience for example, a reduction of search costs when the consumer is under time pressure. Convenience in e-shopping therefore increases search efficiency.

By eliminating travel costs and associated frustrations (psychological costs). E-Retailers differentiate themselves by emphasizing convenience. [www.amazon.com](http://www.amazon.com) allows regular customers to complete the purchase process with 'one click'. Similarly, Amazon have allowed customers to review products, enhancing the quantity and quality of product information for potential customers, helping in the customer information search process to reduce search costs and time. Variety of products is a related aspect of online shopping that also reduces search costs.

Retailing literature suggests that shopping frequency may influence purchase intentions. For example, experienced Internet users were more likely to participate in virtual communities for informational reasons, whereas novice users were more likely to participate for social interaction. E-Shopping becomes more routine as e-shoppers gain experience of an e-retailer's site.

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## 2.8 POINTS TO REMEMBER

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- A digital consumer may be defined as someone using mobile devices, and in a broad sense, as e-consumer, looking for and purchasing products on the Internet, taking advantage of the content published on-line, aware of themselves and of their needs, and keen on simplifying the decisions they need to make.

- The term of digital consumer may be thus understood in a narrow sense, referring to a consumer using mobile devices (smartphones, tablets, laptops, etc.)
- Digital consumers are not a homogeneous group, and although the way they use technology is common to them, the demographic variable and the lifestyles they live make them different.
- Consumer behaviour studies play an important role in framing marketing and in deciding marketing strategies.
- Digitalization plays an important role in today's competitive market as it involves exploring business model using digital technologies which reduces cost and expand business globally.
- A consumer is one that buys goods for consumption and not for resale or commercial purpose.
- A digital consumer may be defined as someone using mobile devices, and in a broad sense, as e-consumer, looking for and purchasing products on the Internet, taking advantage of the content published on-line, aware of themselves and of their needs, and keen on simplifying the decisions they need to make.
- The study of e-consumer behavior is gaining in importance due to the proliferation of online shopping.
- e-Consumer attitude towards an e-retailer will be positively influenced by customer perceptions of e-retailer image.

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## 2.9 GLOSSARY

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- WOM-word-of-mouth messages
- B2B- Business to Business E-Commerce
- B2C- Business to Customers
- C2C- Customers to Customers
- B2G-Business to Government

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## 2.10 CHECK YOUR PROGRESS

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### Descriptive Type Questions-

- a) Define the term digital consumers?
- b) How many types of digital consumers are there? Explain.
- c) What do you understand by consumer behaviour?
- d) Define digital influence in consumer's life.
- e) What do understand by the term e-consumers?
- f) What are the factors influencing the e-consumers behaviour?

**Objective Type Questions-**

- a) A digital consumer may be defined as someone using mobile devices, and in a broad sense, as e-consumer, looking for and purchasing products on the Internet. (True/False)
- b) Digital consumers are not a homogeneous group, and although the way they use technology is common to them, the demographic variable and the lifestyles they live make them different.
- c) (True/False)
- d) Consumer behaviour is a decision process and physical activity individuals engage in when evaluating, acquiring, using or disposing of goods and services. (True/False)
- e) Business to Business E-Commerce (B2B) here only one party engaged in the business. (True/False)
- f) A consumer is a person or a group who intends to order, orders, or uses purchased goods, products, or services primarily for personal, social, family, household and similar needs, not directly related to entrepreneurial or business activities.(True/False)
- g) ..... .... Marketing refers to online marketing, internet marketing.

**Answer (Objective Type Question)-**

- [a] True      [b] True      [c] True      [d] False  
 [e] True      [f] Digital      [g] e-consumer

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## **2.12 SUGGESTED READINGS**

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## UNIT- 3

# MOBILE AND SOCIAL MEDIA APPLICATIONS

3.1 INTRODUCTION

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3.2 OBJECTIVES

---

3.3 MOBILE AND SOCIAL MEDIA APPLICATIONS: AN OVERVIEW

---

3.4 SMART DEVICES

---

3.5 SIGNIFICANCE OF SMART DEVICES

---

3.6 NOTIFICATIONS

---

3.7 MANAGING INDIVIDUAL BEHAVIOUR

---

3.8 MANAGING CUSTOMER DATA

---

3.9 SERVICE DELIVERY

---

3.10 POINTS TO REMEMBER

---

3.11 GLOSSARY

---

3.12 CHECK YOUR PROGRESS

---

3.13 BIBLIOGRAPHY/ REFERENCES

---

3.14 SUGGESTED READINGS

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### **3.1 INTRODUCTION**

The latest advancement in mobile computing, hardware, and software empowers end users worldwide through a range of mobile devices with enhanced capabilities. Social media is an internet-based form of communication. Social media platforms allow users to have conversations, share information and create web content. There are many forms of social media, including blogs, micro-blogs, wikis, social networking sites, photo-sharing sites, instant messaging, video-sharing sites, podcasts, widgets, virtual worlds, and more. Billions of people around the world use social media to share information and make connections. On a personal level, social media allows you to communicate with friends and family, learn new things, develop your interests, and be entertained. On a professional level, you can use social media to

broaden your knowledge in a particular field and build your professional network by connecting with other professionals in your industry.

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## 3.2 OBJECTIVES

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After the successful completion of this unit, you will be able to-

- Understand mobile social networks and its features.
- Define the significance of smart devices.
- Managing individual behaviour on social networks.
- Understand the concept of notifications in mobile applications.
- Understand customer data and service delivery.

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## 3.3 MOBILE AND SOCIAL MEDIA APPLICATIONS: AN OVERVIEW

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Recently, personal hand-held mobile devices (e.g., MP3 players, PDAs, and smartphones) have become more and more popular. Mobile Social Networks is a means of transmitting information (communicating) using a mixture of voice and data devices over networks including cellular technology and elements of private and public IP infrastructure (such as the Internet). ‘Mobile Social Networking’ (MSN) refers to all of the enabling elements necessary for the contribution (‘posting’ and sending/uploading) and consumption (downloading/viewing/experiencing) of social media across a mobile network.

Social media are non-professional digital photos, written communications (eg text-based blog postings), sounds (voice and/or musical expression) and video, integrated and digitally shared with a group of known and/or unknown network connected individuals. Some of the widely used social media platforms are- Facebook, Twitter, Utube, Instagram, Linkedin, pintrest, etc. Before going to study the other aspects of social media applications, let us understand some terms.

**Social Network-** Similar to there being many online social networking sites, such as Facebook and Twitter, there are just as many social networks on mobile devices. They offer vast number of functions including multimedia posts, photo sharing, and instant messaging. Most of these mobile apps offer free international calling and texting capabilities. Today, social networking apps are not just for the social aspect, but are frequently used for professional aspects as well, such as LinkedIn, which is still constantly growing.

**Messaging-** This model is focused on the ability to send short, text-based messages to an individual, group of close friends, or even a large group of classmates, simultaneously. This category enables messages to reach the right people as quickly as possible. Many messaging apps are very popular, maybe even more than classical texting. Some social network platforms, such as Facebook, have their own native messaging applications, similar to Facebook

Messenger. Different countries have a certain messenger that is predominant, like China with WeChat, Korea with KakaoTalk, and the US with WhatsApp.

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### **3.4 SMART DEVICES**

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Smart devices are all of the everyday objects made intelligent with computing power and connected to the Internet to form the Internet of Things (IoT). Smart devices gather and share data from the edge of the network, and while they may be small, they are powerful. They range from small asset tracking devices to wearables that monitor health, to refrigerators and other smart home components. Smart devices use sensors to gather physical data, such as light, temperature, and presence, and deliver that data to be analyzed and used.

Smart devices connect a home or building to the IoT, making the space intelligent by—automating ambient controls, increasing energy efficiency, and increasing security. Smart devices are also used by companies in each step of the supply chain to improve business decision making and, customer service, and to help and refine manufacturing processes.

Some of the smart devices used today are discussed below.

#### **Amazon Alexa-**

Alexa is undoubtedly one of the most comprehensive smart home ecosystems available today. Alexa makes every aspect of your smart home easy to access and control. Alexa is now built into plenty of other smart products, including thermostats (i.e. Ecobee4) and TVs (i.e. Fire TV).

#### **Google Assistant–**

If there's any true runner-up to Alexa, it's Google Assistant. Even though Google Assistant has less third-party integrations, it can often answer questions and complete commands Alexa can't. Thanks to Google's major ownership of the search engine space. Google Assistant was five times more likely to give a correct answer than Alexa. Ultimately, Assistant wins when it comes to understanding how people naturally speak. You can find it in your smart phone.

#### **Smart phone-**

Smartphones use cell phone network technology to send and receive data for phone calls, Web browsing, file transfers. A smartphone is a cell phone that allows you to do more than make phone calls and send text messages. Smartphones can browse the Internet and run software programs like a computer. Smartphones use a touch screen to allow users to interact with them. There are thousands of smartphone apps including games, personal-use, and business-use programs that all run on the phone.

#### **Tablets-**

A tablet, tablet computer, or tablet PC is a mobile computing device designed to be held in one or two hands. It is approximately the size of a hardcover book (seven inches or bigger), and resembles a large smartphone.

### **Wearable Smart Devices-**

Wearable technology is increasingly driving closed-loop healthcare, where wearable trackers or other remote patient-monitoring devices allow clinicians to constantly monitor and adjust treatments.

### **Oxymeter-**

Pulse Oxymeter is a portable medical device that can help in identifying oxygen level in the blood in a non-invasive way. It gives the details within seconds. A click like device places to the finger and within seconds the medical device checks the oxygen levels in the blood. The oxygen levels calculated by Pulse Oxymeter in a percentage based on the comparison of maximum level of oxygen carry by blood and the current oxygen level carrying by the blood cells. In medical terminology it is called oxygen saturation levels.

### **Fitness bands-**

With changing lifestyle and food habits, maintaining a healthy diet has become one of the most tedious tasks. That is when a schedule of the solid workout comes into play. But the most important question is how to keep track of fitness? The answer to this question is the fitness bands. Fitness bands make the workout simpler with accurate statistics and related data.

### **GPS trackers-**

Global Positioning System or “GPS” was originally developed by the US Air Force to assist them with the military operations. GPS has made a significant impact on all positioning, navigation and monitoring applications in the world and over the course of the decades, it has evolved to a point where it is used in almost every aspect of our lives.

Global Positioning System tracking is a method of working out exactly where something is. A GPS tracking system, for example, may be placed in a vehicle, on a cell phone, or on special GPS devices, which can either be a fixed or portable unit. GPS works by providing information on exact location. It can also track the movement of a vehicle or person. So, for example, a GPS tracking system can be used by a company to monitor the route and progress of a delivery truck, and by parents to check on the location of their child, or even to monitor high-valued assets in transit.

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## **3.5 SIGNIFICANCE OF SMART DEVICES**

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Let us observe the significance of smart devices.

- Keep your loved ones in touch, either through calls, text or images, which express the feeling in a sweet and amusing way.
- You may know where you are and find easy ways and routes to go anywhere, especially in an unknown place.
- You can make the world listen to your voice in a touch.
- You can spend your time wisely reading the news or doing some official work.
- Can entertain yourself with games, music or movies.
- Can always be available socially.
- Can avail the Customer service offers to be easily accessible.
- Food and groceries can be ordered online.
- Email and Banking become easy.
- Endless apps are available to make your dreams come true.

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### **3.6 WHAT IS NOTIFICATION?**

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A notification is a message that Android displays outside your app's UI to provide the user with reminders, communication from other people, or other timely information from your app. Users can tap the notification to open your app or take an action directly from the notification.

A mobile app push notification is a message sent by an application to a customer's mobile device. You can send push notifications to customers who have installed your mobile app and opted-in to receive messages. Mobile app push notifications are typically used to deliver product updates, reminders, personalized offers, breaking news and any information that's integral to the functionality of the app and requires special attention, or needs to be actioned quickly. Notifications appear to users in different locations and formats, such as an icon in the status bar, a more detailed entry in the notification drawer, as a badge on the app's icon, and on paired wearables automatically. The benefits of mobile push notifications are:

#### **[1] Stimulate user engagement**

Mobile push notifications can have a huge impact on engagement by pushing your customers back into your app. Done wrong, push notifications can cause customer opt-out, app removal, and bad publicity. Done right, mobile push notifications can open up a line of communication that's closer to the customer than any other technology currently available.

#### **[2] Increase conversion**

A real-time mobile push message, segmented or generic, creates a sense of urgency. It can efficiently retarget customers and trigger instant purchases.

#### **[3] Improve customer retention**

Did you know that nearly 90% of apps that are downloaded onto a mobile device are opened once, and then they are never used again? Only 16% of users will try out an app more than

twice. Fortunately, expanding your messaging strategy with Android and iOS push notifications can increase your mobile consumer engagement and app retention.

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### 3.7 **MANAGING INDIVIDUAL BEHAVIOUR**

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Individual behaviour is the result of interaction between individual characteristics and environmental characteristics by which behaviour occurs. It has been observed that each person's behaviour is the result of intelligence, creativity, personality and adaptability etc. To understand individual behaviour some factors that affect behaviour of an individual should be explained, they are:

**[1] Personal characteristics-** They are age, gender, marital status. These factors make people different.

**[2] Personality-** *“Personality means how people affect others and how they understand and view themselves as well as their pattern of inner and outer measurable traits and the person – situation interaction.” Fred Luthans.*

**[3] Emotions-** They are the intense/powerful feelings that are directed someone or something. They create state of readiness for behaviour. Joy, love, sadness, and fear are some forms of it.

**[4] Value-** Value generally identifies a person's ethical/moral structure on which the concept of good or bad and right or wrong is based.

**[5] Beliefs-** Beliefs are descriptive thoughts that an individual hold about something. They can be based on knowledge, opinion, and reference group member. They influence individual behaviour. Beliefs are formed by past experience, available information and generalization.

**[6] Attitudes-** An attitude can be as a positive or negative evaluation of people, objects, event, activities, ideas, or just about anything in environment. Attitude identifies whether a man is feeling good or bad it is really a person's psychological matter or world.

Consumers use social media for the benefit of immediate access to information at their convenience helping them to decide what to buy or to know more about new products or brands, when and where they want. Social media is perceived as a more trustworthy source of information when compared to corporate communications and advertisements. Customers contact with each other through the online platforms(C2C) and avail the easier facilitation of customer communities and then they go back to the company (C2B).

#### **Impact of Internet on consumer behaviour-**

WOM is a concept called word of mouth, a person-to-person communication regarding any product or service. Online or electronic word-of-mouth (eWOM) is a form of WOM where internet users provide reviews and ratings to all kinds of products, brands and services on review sites. It is defined as “any positive or negative statements made by potential, actual, or former customers about a product or company, which is made available to a multitude of people

and institutions via the Internet”. There are many ways to model consumer behaviour, depending on the goal of the research, but a useful method is the decision-process approach which studies the events that precede and follow a purchase, and that explains the way decisions are made (Karimi, 2013)

There are many ways to model consumer behaviour but a useful method is the decision-process approach which studies the events that precede and follow a purchase, and that explains the way decisions are made. Consumer decision-making could be defined as the “behaviour patterns of consumers, that precede, determine and follow on the decision process for the acquisition of need satisfying products, ideas or services”. It means that the consumer behaviour can be managed by studying the search history and browsing history. Social media links, likes and browsing history also tells the interest of consumer.

### **Impact of Social media on consumer decisions-**

Consumers use social media for the benefit of immediate access to information at their convenience helping them to decide what to buy or to know more about new products or brands, when and where they want. Social media is believed as a more trustworthy source of information when compared to corporate communications and advertisements. It has a deep impact in decision making capacity of users.

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## **3.8 MANAGING CUSTOMER DATA**

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Off-the-shelf smartphones already come equipped with the sensors needed to obtain a great deal of information about their owners’ behavioural lifestyles. They routinely record sociability (who we interact with via calls, texts, and social media apps) and mobility behaviours (where we are via accelerometer, global positioning system [GPS], and WiFi) as part of their daily functioning. Smart-phone sensing methods make use of these behavioural records by implementing on-the-phone software apps that passively collect data from the native mobile sensors and system logs that come already embedded in the device.

Managing customer data is a hot topic. According to one report, consumer data is now the world’s most valuable resource “the oil of the digital era” and needs to be treated and safeguarded as such. Failing to do so can result in serious damage. Consider the ride-hailing service Uber. The company experienced a data breach in 2016 when hackers accessed the private data of around 57 million people, including 600,000 driver’s license numbers. The incident cost Uber \$148 million in the settlement alone. It also caused major damage to Uber’s reputation, particularly after the company attempted to hide the breach from the public. Proper data collection and management are absolutely essential for ensuring that a company avoids data breach issues and the resulting loss of customer trust. Furthermore, effective customer data management is beneficial for a business.

Customer data management is the practice of ethically collecting, securely storing and managing a database of customer information for the purpose of improving a company's overall services, processes, and products. The value of effective customer data management can include increased sales, improved customer retention, more effective marketing campaigns, stronger customer relationship, and more.

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### **3.9 SERVICE DELIVERY**

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Service delivery can be defined as any contact with the public administration during which customers – citizens, residents or enterprises – seek or provide data, handle their affairs or fulfil their duties. These services should be delivered in an effective, predictable, reliable and customer-friendly manner. Due to rapid expansion of the use of information and communication technologies, electronic service delivery is an effective means to reduce costs, both in time and money, for the customer as well as the government. Good service delivery requires that:

- The government understands the need to promote citizen-oriented administration.
- Good administration is a policy objective put into practice coherently, through various regulatory and other mechanisms, to ensure quality public services.
- Accessibility to public services is ensured.

#### Challenges Facing Mobile Service Delivery Strategies

- Understanding the customer, their attitudes and preferences.
- Identifying high volume applications or transaction suitable for a mobile app.
- Determining which hardware device features are necessary for application operation?  
Would a web-based solution be a better fit?
- How will content be aligned across multiple channels including web, mobile web, and mobile apps?
- Managing code-base and ensuring consistent presentation across multiple platforms.
- App store maintenance and updates.
- Ensuring application integrity and authenticity to agency customers.

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### **3.10 POINTS TO REMEMBER**

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- There are many forms of social media, including blogs, wikis, social networking sites, photo-sharing sites, instant messaging, video-sharing sites, podcasts, widgets etc.
- Smart devices are all of the everyday objects made intelligent with computing power and connected to the Internet.
- Smart devices use sensors to gather physical data, such as light, temperature, and presence, and deliver that data to be analysed and used.



- A mobile app push notification is a message sent by an application to a customer's mobile device. Global Positioning System tracking is a method of working out exactly where something is.
- Consumer behaviour can be managed by studying the search history and browsing history.
- Consumers use social media for the benefit of immediate access to information at their convenience.
- Service delivery can be defined as any contact with the public administration during which customers – citizens, residents or enterprises – seek or provide data, handle their affairs or fulfil their duties.
- Data is now the world's most valuable resource—"the oil of the digital era"—and needs to be treated and safeguarded as such. Failing to do so can result in serious damage.
- Customer data management is the practice of ethically collecting, securely storing and managing a database of customer information for the purpose of improving a company's overall services, processes, and products.

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### **3.11 GLOSSARY**

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- MP3- Moving Picture Experts Group Audio Layer 3
- PDA- Personal Digital Assistant
- MSN- Mobile Social Networking
- IoT- Internet of Things
- PC- Personal Computer
- UI- User Interface
- GPS – Global Positioning System
- eWOM- electronic word-of-mouth

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### **3.12 CHECK YOUR PROGRESS**

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#### **Descriptive Type Questions-**

- a) What are smart devices?
- b) What is the significance of smart devices?
- c) What are the main aspects of an individual behaviour?
- d) What do you understand by managing customer data?
- e) Define challenges of managing mobile service delivery strategies.

#### **Objective Type Questions-**

- a) Social media is an internet-based form of communication. (True/False)

- b) Only Few people around the world use social media to share information and make connections. (True/False)
- c) Smart devices use sensors to gather physical data, such as light, temperature, and presence, and deliver that data to be analysed and used. (True/False)
- d) WOM is a concept called word of mouth. (True/False)
- e) Consumer behaviour cannot be managed by studying the search history and browsing history. (True/False)
- f) ..... is a message that Android displays outside your app's UI to provide the user with reminders, communication from other people, or other timely information from your app.
- g) ..... tracking is a method of working out exactly where something is.
- h) Customer data management is the practice of ethically collecting .....

### Answer (Objective Type Question)-

- |           |                  |                               |          |
|-----------|------------------|-------------------------------|----------|
| [a] True  | [b] False        | [c] True                      | [d] True |
| [e] False | [f] Notification | [g] Global Positioning System | [h] Data |

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### 3.14 SUGGESTED READINGS

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- [https://www.researchgate.net/publication/335614346\\_Impact\\_of\\_social\\_media\\_on\\_consumer\\_behaviour](https://www.researchgate.net/publication/335614346_Impact_of_social_media_on_consumer_behaviour)
- <https://www.zendesk.com/blog/8-ways-effectively-manage-customer-data/>

## UNIT- 4

### MANAGING CLOUDS

(Brief Introduction to Cloud Applications)

|      |   |
|------|---|
| 4.1  | INTRODUCTION                                  |
| 4.2  | OBJECTIVES                                    |
| 4.3  | WHAT IS CLOUD COMPUTING                       |
| 4.4  | CHARACTERISTICS OF CLOUD COMPUTING            |
| 4.5  | SERVICES OF CLOUD COMPUTING                   |
| 4.6  | TYPES OF CLOUD COMPUTING                      |
| 4.7  | BUSINESS PROSPECT OF CLOUD COMPUTING          |
| 4.8  | FUTURE OF CLOUD IN IT INDUSTRIES              |
| 4.9  | LIMITATIONS AND ADVANTAGES OF CLOUD COMPUTING |
| 4.10 | MANAGING DATA FROM SENDING TO SHARING         |
| 4.11 | GLOSSARY                                      |
| 4.12 | CHECK YOUR PROGRESS                           |
| 4.13 | BIBLIOGRAPHY/REFERENCE                        |
| 4.14 | SUGGESTED READINGS                            |

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### **4.1 INTRODUCTION**

Cloud computing is a new technology for storing data and programs over the internet instead of on a traditional device like hard drive or secondary storage. The term cloud is used as a symbol for the Network or Internet. This uses a software to ensure flawless connectivity between devices/computers linked via cloud computing. This allows users to create, configure and customize applications online. With cloud computing user can access database resources via the internet from anywhere at any time as long as they need it. In other words, we can say cloud is a storage space which is present at remote location.

Cloud computing is the delivery of computing services that includes servers, storage, databases, networking, software, analytics and intelligence over the Internet i.e., “the cloud” to offer faster

innovation, flexible resources and economies of scale. Applications like e-mail, web conferencing, customer relationship management etc. all run in cloud.

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## **4.2 OBJECTIVES**

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After the successful completion of this unit, we will be able to-

- Understand the concept of cloud computing.
- Describe the major characteristics of cloud computing.
- Explain the architecture of cloud computing.
- Know about different types of cloud computing.
- Familiar with business prospective of cloud computing.
- Know the security measures while using cloud.

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## **4.3 WHAT IS CLOUD COMPUTING**

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Cloud computing is a new technology for storing as well as accessing data, program and applications over the Internet with remote resources. Now a day the data, program and applications are increasing in volume rapidly. Storing such huge data, program and applications in one computer system becomes difficult due to the limited capacities of storage units like hard drive, secondary storages like CD-ROM, Pen drive external hard disk etc. to overcome this storage problem, the cloud computing technology has emerged and becoming popular day by day among researchers, educationist and in IT industries.

In cloud computing the services are the resources and are owned and managed by the cloud provider rather than the end user. End users need not to bother about the maintenance of these services; they can simply use it for their requirements. These resources may include:

- Browser-based software applications such as Gmail, Yahoo, Netflix etc.
- Third party data storage for photos and other digital media such as iCloud or Dropbox, or
- Third-party servers used to support the computing infrastructure of a business, research, or personal project.

Businesses and general computer users normally had to buy and maintain the software and hardware of their own, before the invention of cloud computing. With the rapid growing of cloud-based applications, the consumers now have access to an on-demand computing resources such as storage, services, businesses and many more. As technology is shifting from traditional use of software and hardware to networked remote and distributed resources, the cloud users need not to invest for the capital or expertise for buying and maintaining these computing resources themselves. This access to additional computing resources has given rise to a new wave of cloud-based businesses, changed IT (Information Technology) scenario across industries and transformed many daily based computer-assisted works. With the cloud-based concepts, we can now work with colleagues over video meetings, access entertainment

and educational content on demand. We can communicate with household appliances, hire a cab with a mobile device and can rent a vacation room in someone's house.

Computer Technology is shifting to the cloud, more and more these days. People and their work are switched from traditional storage software to the Internet in the recent year. Cloud computing is providing different facilities and services like databases, servers, storage, applications, etc. through the Internet. Instead of storing data in local storage on a hard drive or on secondary storage, cloud computing helps us in storing and saving data on a remote database provided the device is equipped with internet.

We can say cloud computing is somewhat outsourcing of computer programs. These computer programs are owned and hosted by an external party and they are located in the remote which is cloud for us. Due to this facility, the users need not to worry about the storage and power. They can access their applications, programs and data from anywhere at any time, which is the biggest advantage. Nowadays, many people are opting for cloud computing for a variety of reasons including increased productivity, better monetary value, time and speed efficient, security and performance.

Despite the growing presence of cloud computing, its details remain unclear to many of us. What exactly is the cloud, how does one use it and what are its benefits for businesses, developers, researchers, government, healthcare practitioners, and students? We will discuss these in the subsequent sections.

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#### **4.4 CHARACTERISTICS OF CLOUD COMPUTING**

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The National Institute of Standards and Technology (NIST), a non-regulatory agency of the United States, Department of Commerce with a mission to advance innovation, defines cloud computing as “A model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction”. NIST lists the following five essential characteristics of cloud computing:

- **On-demand Self-Service:** Resources available in a 24X7 services and can be accessed or provisioned without human interaction. With this model, users need to sign up to get immediate access of the cloud services. Organizations can also create mechanisms for allowing employees, customers or partners to access internal cloud services on demand as per predetermined logics without needing to go through traditional IT services.
- **Broad Network Access:** The cloud services and resources can be accessed by the users through any device and in any networked location provided that they have permission to use it.

- **Resource Pooling:** Cloud provider resources are shared by many users in a manner to keep the data of individual user hidden from other users. Security aspects are very well maintained.
- **Rapid Elasticity:** Depending on user needs the cloud computing resources can be rapidly increased, decreased, or otherwise modified. There is always a flexibility of changing the resources as per demand.
- **Measured Service:** The user needs to pay only for the resources they are demanding or say using in the cloud. These usages of cloud resources is monitored systematically so that businesses and other cloud users need only to pay for the resources they use in any given period of time. Apart from the above-mentioned characteristics by NIST, there are some other characteristics also of cloud which are as follows:
- **Easy Maintenance:** One of the best cloud characteristics is that, it is very easy for maintenance. The servers are maintained effortlessly and the downtime of servers remains significantly low or absolutely zero sometimes. Resources of Cloud Computing undergo several updates frequently to optimize their capabilities and potential. The updates of these resources are more viable with the devices and perform much quicker than the previous versions.
- **Economical:** This cloud characteristic helps in reducing the expenditure of exiting IT of any organizations. In Cloud Computing, the client needs to pay only the administration charges for the space they are using. There is no hidden, covered up or additional charge that needs to be paid by the user. The cost of administration is economical and some space is allotted for free to the user.
- **Security:** Data security is also one of the best characteristics of Cloud Computing. Cloud services create a replica i.e., copy of the data that is stored to prevent any form of data loss. In case, if any one server is down and loses the data, then the copy version is restored from the other server. This feature is very helpful when there are several users work on a particular file in a real time environment and a file or files are suddenly gets corrupted.
- **Automation:** One of the essential characteristics of cloud computing is automation. The ability of cloud computing to automatically install, configure, and maintain a cloud service that is known as automation in cloud computing. In simple words, we can say that, it is the process of making available most of the technologies and reducing the manual effort. However, to achieve automation in the cloud environment is not a very easy job. This requires the installation and deployment of resources like virtual machines, servers and large storage. After successful deployment, these resources require constant maintenance as well, which needs a continuous monitoring of the entire system by the administrator.

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## 4.5 SERVICES OF CLOUD COMPUTING

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In Cloud Computing everything is considered as a service. Cloud computing provides many distinct types of computing services delivered remotely to clients via the internet. Clients typically pay a monthly or annual service fee to providers, to gain access to systems. Services are also considered as model for cloud and according to different models, of which the three standard models per NIST are as follows:

- Infrastructure as a Service (IaaS),
- Platform as a Service (PaaS), and
- Software as a Service (SaaS).

Let us discuss these services first and after that we will discuss some other services of Cloud Computing.

### **Infrastructure as a Service (IaaS)-**

Infrastructure as a service (IaaS) allows clients to use hardware and resources remotely on a payment basis. This also refers to online services that provide high level Application Programming Interface (APIs), which is used to hide low level details of underlying network infrastructure like physical computing resources, location, data partitioning, scaling, security, backup, etc. This service is also popular as hardware as a service (HaaS). Companies like IBM, Google and Amazon.com are main IaaS providers. IaaS provides small start-up firms with a major advantage, since it allows them to gradually expand their IT infrastructure without the need for large capital investments in hardware and peripheral systems.

Infrastructure as a service (IaaS) runs the virtual machine as guests. Pools of hypervisors, i.e., also known as a virtual machine monitor or VMM, is software that creates and runs virtual machines (VMs) within the cloud system and can support a large number of virtual machines and the ability to scale services up and down according to customers' requirements. IaaS clouds often offer additional resources such as a virtual machine, disk image library, raw block storage, file or object storage, firewalls, load balancers, IP addresses, virtual local area networks (VLANs), and software bundles.

The NIST's definition of cloud computing describes IaaS as "where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications. The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications; and possibly limited control of select networking components (e.g., host firewalls)."

IaaS cloud providers supply these resources on demand from their large pools of equipment installed in data centers. For wide area connectivity, customers can use either the Internet or carrier clouds (dedicated virtual private networks). To deploy their applications, cloud users install operating system images and their application software on the cloud infrastructure. In

this model, the cloud user patches and maintains the operating systems and the application software. Cloud providers typically bill IaaS services on a utility computing basis: cost reflects the amount of resources allocated and consumed.

### **Platform as a Service (PaaS)-**

Platform as a service (PaaS) offer an environment for development to application developers. The provider generally develops toolkit and standards for development. This also provides channels for distribution of resources and payment details. In this model, cloud providers deliver a computing platform that includes operating system, programming language execution environment, database, web server. Application developers use these platforms to develop and run their software instead of directly buying and managing the required hardware and software they need for their jobs.

There are some integration and data management providers available and they also use some specialized applications of PaaS as delivery models for data services. For example, Integration Platform as a Service (iPaaS) and Data Platform as a Service (dPaaS) use PaaS services.

The NIST's definition of cloud computing defines Platform as a Service (PaaS) as: “The capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment”.

### **Software as a Service (SaaS)-**

Software as a Service (SaaS) model provides application software and databases that users have access for their requirements. Cloud providers manage the infrastructure and platforms that run these applications. SaaS is sometimes referred to as "on demand software" and is normally charged on a “pay-per-use” basis or a subscription fee. In the SaaS model, cloud providers install and operate application software in the cloud and cloud users access the software from cloud as and when it is required. Cloud users need not to manage the cloud infrastructure and platform where the application runs. Users need not to install and run the application on their own computers or devices. Due to this facility, this simplifies the maintenance and support.

The NIST's definition of cloud computing defines Software as a Service as:

“The capability provided to the consumer is to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g., web-based email), or a program interface. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application



capabilities, with the possible exception of limited user-specific application configuration settings”.

Generally, the charges claimed by the SaaS applications is either a monthly or yearly and sometimes it provides free of cost for a particular period of time. SaaS gives the potentials to a business reduce its IT operational costs by outsourcing hardware and software maintenance and support to the cloud provider. In addition, as applications are hosted centrally, updates can be released without the need for users to install new software.

Examples of SaaS include: Google Applications and internet-based email applications like Yahoo! Mail, Hotmail and Gmail. Games and productivity software like Google Docs and Word Online are also examples of applications that offered as SaaS. SaaS applications may be integrated with cloud storage or File hosting services, which is the case with Google Docs being integrated with Google Drive and Word Online being integrated with One Drive.

However, there is a drawback of SaaS that comes with storing the user data on the cloud provider's server. Due to this, there could be a chance of unauthorized access to the data. Cloud applications differ from other applications in their scalability. The tasks are replicated or we can say the tasks are cloned onto multiple virtual machines at the run time to meet the availability of data and program when it is demanded. Load balancers distribute the work over the set of virtual machines. This process is transparent to the cloud user and they can see only a single access point. To accommodate a large number of cloud users, cloud applications can be multitenant, meaning that any machine may serve more than one cloud user organization.

Clients who subscribe to cloud computing services can reap a variety of benefits, depending on their particular business needs at a given point in time. The days of large capital investments in software and IT infrastructure are now a thing of the past for any enterprise that chooses to adopt the cloud computing model for procurement of IT services. The ability to access powerful IT resources on an incremental basis is levelling the playing field for small and medium sized organizations, providing them with the necessary tools and technology to compete in the global marketplace, without the previously requisite investment in on premise IT resources. Clients who subscribe to computing services delivered via the “cloud” are able to greatly reduce the IT service expenditures for their organizations; and gain access to more agile and flexible enterprise level computing services, in the process.

Now we will discuss some other services of Cloud Computing.

### **Mobile "backend" as a service (MBaaS)-**

This is a relatively recent model in cloud computing. This service is a useful service for app developers. In the mobile "backend" as a service (MBaaS) model, which is also known as backend as a service (BaaS). The web app and mobile app developers are able to link their applications to cloud storage and cloud computing services with the help of Application

Programming Interfaces (APIs). Developers also use Custom Software Development kits (SDKs), another important tools available for app developers. The other services include user management, push notifications, integration with social networking services and many more.

### **Server less computing-**

Server less computing is a cloud computing code execution service model in which the cloud provider fully manages starting and stopping of virtual machines as necessary to serve requests. The requests are charged by an abstract measure of the resources required to satisfy the request, rather than per virtual machine per hour. Despite the name, it does not actually involve running code without servers. Server less computing is so named because the business or person that owns the system does not have to purchase, rent or virtual machines for the code to run on.

### **Function as a service (FaaS)**

Function as a service (FaaS) is a remote procedure call that supports server-less computing to enable the deployment of individual functions in the cloud that run-in response to some events. FaaS is included under the broader term server-less computing, but the terms may also be used interchangeably.

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## **4.6 TYPES OF CLOUD COMPUTING**

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Cloud computing types are service deployment models. There are three main types of cloud computing services, sometimes called the cloud computing stack because they build on top of one another. The three kinds of cloud are private, public or a hybrid cloud that are popular.

### **Private Cloud-**

The private cloud refers to cloud services that belongs to the organization and managed by them. This cloud service is available only to the employees of that organization and registered customers. Private clouds allow organizations to have greater control over their computing environment and their stored data. Private clouds are generally more secure than public clouds as they are accessed through private networks and the organization can directly supervise their cloud security. Normally, a private cloud computing resources are being used entirely by a single entity, either a business or an organization. Physically, a private cloud is usually located on the company site. Optionally, a few companies get their private cloud hosted by third-party service providers. The network used in a private cloud is a private network that is responsible for its services and infrastructure.

In private cloud a single organization operates the cloud infrastructure only. Also, a private cloud is a cloud computing system in which IT services are supplied for the specialized use of one organization over private IT facility. It can be run on-site or off-site by the organization or a third party. Private cloud terms are often employed interchangeably with the virtual private cloud (VPC). Technically a VPC is a private cloud that uses the infrastructure of a third-party

cloud provider, while an inner cloud is enforced. Examples of private cloud are Amazon Web Services (AWS) and Virtual Machine Software (VMware).

### **Public Cloud-**

The public cloud refers to the cloud services that are offered by some commercial providers to businesses and individuals publicly. The services include virtual machines, storage and several applications. Public cloud resources are available on the commercial provider's hardware, which the users can access through the internet. Public clouds are owned and maintained by third-party providers of cloud service. Users just use these services and control their account by using a web browser provided to them. The public cloud is also described as computing services provided through the public internet by third party suppliers, making them accessible to those who want to use them or buy them. It can be free or on demand for customers to pay for the cycles, storage or bandwidth they consume per usage.

However, they are not always suitable for organizations in highly regulated industries, like healthcare or finance. As public cloud environments may not comply with industry regulations regarding customer data. Examples of public clouds are Microsoft Azure and Sales force.

### **Hybrid Cloud-**

A hybrid cloud uses elements from both the public cloud and private cloud and combines them. This is binding them with technology that permits their data and applications to be shared. This type of cloud is a computer environment that includes a government i.e. public cloud and private cloud to share information. Many organizations use a hybrid cloud environment which combines public cloud and private cloud resources to support the organization's computing needs and simultaneously maintains compliance with industry regulation. Hybrid cloud is also known as Multi-cloud environments that involve the use of more than one public cloud provider. For example, combining Amazon Web Services (AWS) and DigitalOcean for an organization, where AWS is private cloud and DigitalOcean is public cloud.

By using hybrid cloud organizations can achieve flexibility and the computer capacity of a government cloud i.e., public cloud for fundamental and insensitive computing functions, while it is safe behind a corporate firewall i.e. private cloud for business information.

By consenting data and applications to share between public cloud and private clouds, a hybrid cloud provides more flexibility, in turn helping in optimizing the existing infrastructure.

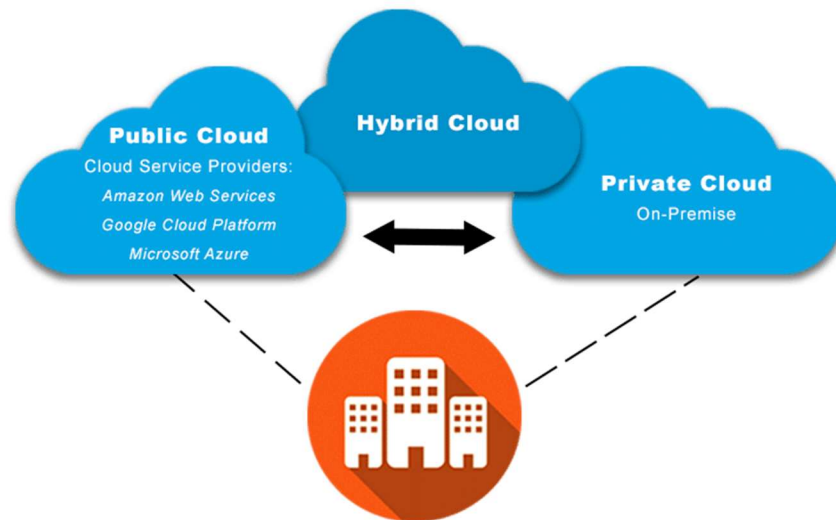


Figure 4.1 Types of Cloud Computing

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## 4.7 BUSINESS PROSPECT OF CLOUD COMPUTING

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Prior to the emergence of cloud computing, most businesses and organizations use their own software and hardware that supported their computing activities. As cloud computing resources became available, most of the businesses started using them to store data, provide enterprise software as well as set up online products and services. Some of these cloud-based adoptions and innovations are industry specific. In healthcare industry, they use cloud services that are specifically designed to store and share patient data or communicate with patients.

In the academy, educators and researchers use cloud-based teaching and research apps. But there are also a large number of general cloud-based tools that have been adopted across industries, such as apps for productivity, messaging, expense management, video conferencing, project management, newsletters, surveys, customer relations management, identity management, and scheduling. The rapid growth of cloud-based business apps and infrastructure leads not only just changing business IT strategy but this creates a boom in their business. Cloud based technologies offer businesses several key advantages. First, this helps to optimize the business costs. As businesses shift towards renting computing resources, the business and IT sectors need not to invest in purchasing and maintaining the business and IT infrastructure. Second, this allows businesses just to pay for the computing resources they actually use. Cost, however, is not the only consideration that drives cloud adoption in business. Third, this can help to make internal IT processes more efficient. The Cloud based apps can improve collaboration across a business as they allow for real time communication and data sharing.

Businesses nowadays are seeking innovative ways to grow and accomplish their business goals. With the help of cloud computing, this business will keep on growing in the future. Cloud computing is powerful and expansive and will continue to grow in the future and provide many benefits. Cloud computing is extremely cost-effective and companies can use it for their

growth. The future of cloud computing is bright and will provide benefits to both the host and the customer. One should keep in mind that the owner of the company should be familiar with the latest development taking place in Cloud technology.

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## 4.8 FUTURE OF CLOUD IN IT INDUSTRIES

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By analyzing the current trends and usage the future of cloud computing can be predicted and here are some predictions about Cloud computing.

- **Storage Capacity-** Now a day, data from different fields are generated in a high volume and it has become difficult to store it with security. Most of the companies require a place where they can securely store their data. So many businesses are adopting cloud computing and it has been predicted that the Cloud providers will provide more data centres at a lower price as there is a large competition amongst the providers.
- **Modular Software-** The size of an individual program along with the complexity is increasing regularly. Companies are using this software, which is yet to modify. This leads to the fact that Cloud technology will soon require advance system thinking. We can see software development from many angles because in the future applications will store in places other than the cloud. This application will store on different modules, on servers of different Cloud Service. This can also reduce the cost of software as placing components of the program on different storage is economical.
- **Internet of Things Along with Cloud Computing-** The internet of things (IoT) is one of the leading technologies now a day. It comes with continuous innovation in real time data analytics and cloud computing. There are many machine-to-machine communication, data, and process occurring. Cloud computing plays an important role in handling these huge volumes of data and their processing. However, discussion of internet of things (IoT) is beyond the scope of this unit.
- **Growing Market-** The cloud computing market is growing at 22.8 percent and exceeded to \$127.5 after 2018. By 2018, 62% of all Customer Relationship Management (CRM) software are based on cloud computing. Moreover, 30% of all application spending is for software as a service-based application.
- **Increasing Security-** The data which are stored in the cloud is secure but not fully. The small companies which are providing cloud services may or may not provide proper security to the data. So, in the future, we can prevent from cyber-attacks by providing better security. The cloud providers provide better security measures opening balance ways to prevent cyber-attacks.
- **Economic-** If cloud computing will continue to evolve the use of hardware will be less as most of the work will be done with the help of cloud computing and virtualization. We

can save the setup cost of software by dividing it and this will lead to decreasing the use of hardware.

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## 4.9 LIMITATIONS AND ADVANTAGES OF CLOUD COMPUTING

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In this unit we first discuss the limitations of cloud computing and thereafter the benefits of it.

### Limitations-

- **Downtime-** Downtime is perhaps the single greatest disadvantage of cloud computing. Here it is not about server downtime, but about the Internet access may go down. As long as Internet access is out, nothing can be done with the cloud. Robust mobile data plans can help to offset that problem temporarily. Cellular service often remains workable when internet access and even power goes off. This is true that, data plans are capped and mobile devices have limited battery life. Then again, if the power is off, then accessing cloud services hamper.
- **Security-** Security is one major disadvantage at a different level of cloud computing. Security is one area where determining cloud computing advantage and disadvantages depends on the angle from which we look at the issue. Basic digital security methods must be used for security. Think of it this way, If your home has door locks, a security system, and security cameras, the infrastructure to stay safe is all there. Keeping your home safe requires actually locking your doors, arming the security system and keeping the cameras turned on.
- **Poor Economy-** Cloud computing is a young industry with lots of companies looking for business. There is a possibility that the cloud provider will run out of money and close their doors forever. The more important thing is sudden shutdown of any service provider. This problem is magnified by the issue of cloud vendor lock-in, where migrating from one cloud vendor to another is difficult and expensive.

This may be further explained as, like renting a warehouse and filling it with merchandise. Once all merchandise stored in the warehouse then it is a challenge for logistical move. Now imagine if access to the warehouse is lost then how the merchandise will be moved. This may happen if the owner that is the service provider in this case the owner of the warehouse went bankrupt and decides to shut down the service that is the warehouse without warning. Despite the above limitations or disadvantages Cloud computing offers a variety of benefits to individuals, businesses, developers, and other organizations. These benefits vary according to the cloud users' goals and activities.

### Benefits

- **Less Costs-** The cloud services are free from capital expenditure. There are no huge costs of hardware in cloud computing. This is just pay per use concept; user need to pay according to their subscription plan.
- **Resource Availability-** Most of the cloud providers are truly reliable in offering their services, with most of them maintaining an uptime of 99.9%. The user can get onto the applications needed basically from anywhere. Some of the applications even function off-line.
- **All over Functioning-** Cloud computing offers yet another advantage of working from anywhere across the globe, as long as user has an internet connection. Even while using the critical cloud services that offer mobile apps, there is no limitation of the device used.
- **Automated Updates on Software-** In cloud computing, the server suppliers regularly update the software including the updates on security, so that users need not to waste their crucial time on maintaining the system. Users can get extra time to focus on other important things in their businesses.
- **Enhanced Collaboration-** Cloud applications enhance collaboration by authorizing diverse groups of people virtually meet and exchange information with the help of shared storage. Such capability helps in improving the customer service and product development and also reducing the marketing time.
- **Easily Manageable-** Cloud computing offers simplified and enhanced IT maintenance and management, which is backed by Service Level Agreement (SLA), central resource administration and managed infrastructure. Users get to enjoy a basic user interface without any requirement for installation. Plus, they are assured guaranteed and timely management, maintenance, and delivery of the IT services.

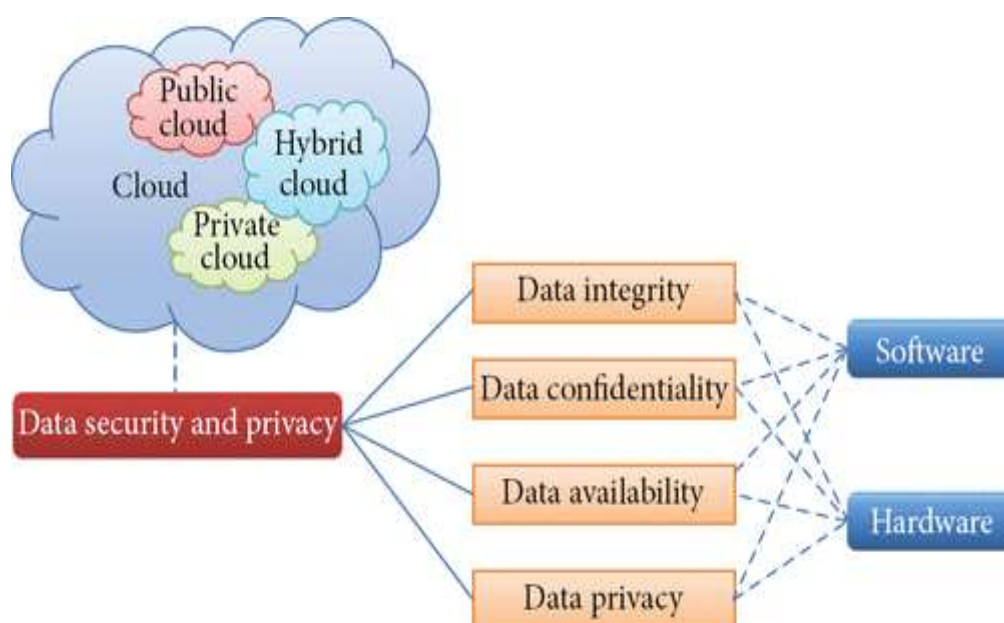


Figure 4.2 Cloud Computing Environment

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## 4.10 MANAGING DATA FROM SENDING TO SHARING

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As digital transformation becomes crucial for all businesses, the rapidity for adoption of cloud computing is accelerated. Because of clouds versatile characteristics such as higher flexibility, scalability, reliability, and affordability there is drastic increase in cloud computing trends. Cloud technology not only enables businesses to scale their computing needs as they grow, but also ensure operational success and satisfies evolving customer demands.

According to the statistics published by Cisco, 94% of workloads and compute instances will be processed in cloud data centres by 2021. Whenever anyone decided to move their business operations to the cloud, it is important to conduct detailed survey on that. This is important to have a brief understanding of what we can do and what we should avoid will help us in taking an informed decision.

### Security in Cloud-

Data on cloud are mostly secured as security is one of the best characteristics of Cloud Computing. Cloud services generally create a replica i.e., copy of the data that is stored. These prevent any form of data loss. However, the data which are stored in the cloud is secure but not fully. The small companies which are providing cloud services may or may not provide proper security to the data. So, in the future, we can prevent from cyber-attacks by providing better security. The cloud providers provide better security measures opening balance ways to prevent cyber-attacks. Therefore, it important that user must follow some strategy that is what to do and what not to do before using Cloud Computing.

### Dos and Don'ts in Cloud-

First, we will discuss about what to do before using any cloud service or model.

- **Do “Strategy Before Cloud Migration”-** It is always very important to plan a detailed strategy before migrating business operations to the cloud. This is desirable to conduct extensive research to learn more about the cloud environment, security and computing services. An in depth understanding about existing business challenges and future goals must be cleared. Figure out a strategy to obtain the maximum benefits of cloud adoption by tracking the fast-changing standards that are now evolving for cloud computing. Moreover, it is also imperative to analyze a different set of migration strategies and consider it a financial issue. Before taking the plunge, do the math and compare cloud computing expenses against in-house IT expenditures. This would help you figure out the solution best suited for your business.
- **Do “Review Cloud Computational Models”-** Every business has unique requirements. So, it is important to evaluate different cloud computing models in detail and see which is suitable to fulfill the business needs. There are normally three cloud deployment



models available from which the business organizations have to make a select one or a combination of public, private and hybrid. In addition to the deployment models there are three basic services cloud that is used for different types of computing such as Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS). It is essential to have a detailed understanding of the high-level differences between different cloud environments and service models so that it helps to choose the best one for any organization or business.

- **Do “Remember Risk and Compliance”**- Implementation of any new technology always comes with some difficulties and use of the same comes with some risk factors. Before making the move into the cloud, it is important to have a deep understanding of the possible risks and regulatory compliance issues. If the business operates in a heavily regulated industry such as healthcare, legal, or e-commerce that handles sensitive user information, then it is critical to stay in compliance with regulations and standards. Therefore, it is always better to evaluate the terms and conditions of the cloud vendors before accepting its services.

Followings are the points we must remember **NOT TO DO** with cloud computing services.

- **Don’t “Gloss Over Details”**- Migrating from traditional business environment to the cloud environment is a big step. However, it is always need to pay attention to every small detail and have a thorough understanding of each factor. Collecting more knowledge not only helps in devising better strategies and taking informed decisions, but also makes the transition process smooth and hassle-free.
- **Don’t “Forget About Security”**- Security should always be the primary concern whether entire business operations move to the cloud or only a part of it. Performing automated testing before the cloud migration will help in assessing and reporting performance issues. Before moving to the new environment, one must get the answers of “How does the cloud service provider address the security concerns?”, “Do they provide a guarantee in terms of safety of authentication and authorization?”, and make sure to discuss all the security and compliance requirements with them in detail.
- **Don't “Force Every Application to The Cloud”**- This is never desirable to move all the existing applications of any businesses or companies to cloud at once. A few programs and files may still need to be stored in traditional data centres for security reasons. On the other hand, some applications might be based on traditional technology and it may need extensive modifications before integrating with the cloud.

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## 4.11 GLOSSARY

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- **NIST** The National Institute of Standards and Technology is non-regulatory agency of the United States.

- **IaaS** Infrastructure as a service is one cloud-based service model that allows users to use hardware and resources remotely on a payment basis.
- **PaaS** Platform as a service (PaaS) is one cloud-based service model that offers an environment for development to application developers.
- **SaaS** Software as a Service (SaaS) is one cloud-based service model that provides application software and databases that users have access for their requirements.
- **API** Application Programming Interface is a software intermediary that allows two applications to talk to each other.
- **VPC** Virtual Private Cloud is a private cloud that uses the infrastructure of a third-party cloud provider.
- **VMM** Virtual Machine Monitor is software that creates and runs virtual machines.
- **MBaaS** Mobile Backend as a Service allows linking the applications to cloud storage.
- **AWS** An Amazon Web service is a popular private cloud.
- **IoT** Internet of Things refers to a system of interrelated, internet-connected objects that are able to collect and transfer data over a wireless network without human intervention.

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## 4.12 CHECK YOUR PROGRESS

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### Objective Type Questions-

- a) Dropbox is a resource of Cloud Computing. (True / False)
- b) NIST is a regulatory agency of United States. (True / False)
- c) Automation of software is not a part of Cloud Computing services. (True / False)
- d) Infrastructure as a Service (IaaS) runs virtual machine a guest. (True / False)
- e) Private is usually located on the public site. (True / False)
- f) AWS is an example of ... .. Cloud.
- g) ... .. is the software that creates and runs virtual Machine.
- h) ... .. is the service useful for app developers.
- i) Hybrid Cloud is also known as ... .. Cloud environment.
- j) The maintenance of Cloud Computing is backed by ... ..

### Descriptive Type Questions-

- a) Define Cloud Computing in details.
- b) Explain the major characteristics of Cloud Computing
- c) What are the main services that Cloud Computing provides? Explain each.
- d) Discuss different types of Cloud services.

- e) What are the major advantages and limitations of Cloud Computing?
- f) What security measures must be followed before migration to Cloud environment?
- g) “The Cloud Computing is the future of all business soon”. Justify the statement.
- h) Discuss the business prospective of Cloud Computing in details.

### Answer (Objective Type Question)-

- |                  |           |           |           |          |
|------------------|-----------|-----------|-----------|----------|
| [a] True         | [b] False | [c] False | [d] True  | [e] True |
| [f] Hybrid Cloud | [g] VMM   | [h] MBaaS | [i] Multi | [j] SLA  |

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## UNIT- 5

# KEY RULES AND GUIDELINES FOR INDIAN GOVERNMENT WEBSITES

5.1 INTRODUCTION

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5.2 OBJECTIVES

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5.3 ROLES OF WEBSITE

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5.4 USER EXPECTATIONS FROM THE WEBSITE

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5.5 WEBSITE AS A RESOURCE CENTRE

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5.6 KEY RULES AND GUIDELINES FOR INDIAN GOVERNMENT WEBSITES (GIGW) COMPLIANCE

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5.7 POINTS TO REMEMBER

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5.8 GLOSSARY

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5.9 CHECK YOUR PROGRESS

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5.10 BIBLIOGRAPHY/REFERENCES

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5.11 SUGGESTED READINGS

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### **5.1 INTRODUCTION**

For many small companies, having a website may seem out of reach because of the cost and commitment involved in owning one and keeping it updated. However, not having some type of online presence can actually hurt your business in the long run. What's the first thing you do when you hear about a company? You look them up online, right? But what if they don't have a website?

You don't necessarily have to sell a product or service to own a site. Whether your company is an e-Commerce or not, a well-crafted online presence is essential for any type of business. Nowadays, most people are visual. They want to see what your company has to offer, and the only way to learn more about it is to look it up online. If users can't find what they're looking for, then guess what? They're going to look somewhere else. Don't lose your potential clients for not having a website.

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## 5.2 OBJECTIVES

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After the successful completion of this unit, you will be able to-

- Roll of websites.
- Understands and analyse the expectations of users from website.
- Understands why website acts as a resource centre.
- Explore guidelines of government websites.

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## 5.3 ROLES OF WEBSITE

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The roles of website for your business are as follows: -

### **Credibility-**

The only thing worse than not having a website is having a poor website design. This just makes your company look bad, and users won't think twice about exiting the page. Fact: 88% of online consumers are less likely to return to a site after a bad experience.

A professional, well-designed site not only creates an inviting environment for visitors to explore your company, but also builds trust with your potential customers. Your website is a reflection of your business, so if you want to make a good impression make sure you hire a professional web designer that understands your business goals. When you can point customers, partners, potential employees or even investors to your website, it lets them know you are a serious business.

### **Website Visibility-**

Nowadays, most people rely on the internet (mostly Google) for almost everything. Since more and more consumers are surfing the internet to research products and services, your business needs to be visible. By having a website, your company is discoverable by popular search engines like Google, Bing and Yahoo! when users search for something related to your business.

About 80% of internet users are coming from a mobile device. This means that aside from your professional business website, you also have to make sure it's mobile-friendly and that it functions well. Thankfully, responsive web design makes it possible for your website to successfully fit on any screen size from tablets to smartphones, or even smart TVs.

### **Competitors-**

Let's talk about the most famous web enemy out there: the competition. There's nothing worse than losing business over the competition especially when they have a website and you don't. In this case, company size doesn't matter. What's important is what differentiates your business from the rest. If your website is professionally designed, attractive and trustful then chances are customers will choose you over the competitor.

So, Credibility, visibility and competition are just a few of the most important roles of websites for your business. It may seem overwhelming at first, but the best way to get your return on investment (ROI) is to invest in your online presence. There are many ways a business can establish and maintain its online presence. It's up to the business owner to choose which option provides the best long-term fit with the company's objectives, availability of necessary resources, and the company's level of commitment to a meaningful website.

### **Appearance-**

The website is the first thing that people who are looking for your business will try to find. The information you place on the website is officially the statement that your business is giving to the world. Therefore, the website is your storefront even if you are not selling anything. It is the informal or formal office online that people will go to when they are looking for your business online.

### **Branding and Public Relations-**

As noted above, the website is a tool for branding and public relations. It will be an avenue for recruitment and for informing stakeholders about the projects undertaken by your business. The website is the communication link that your business needs. For instance, when you are running pet rescue services, the website will be the place where you highlight the story of your organization. You will highlight achievements and affiliations so that people get the right picture about your brand and take some action according to what you ask them to do.

### **E-governance avenue-**

The website will also serve as a shop where visitors come and get products or services. They will use guidelines on the website to pay and then proceed to checkout and download the product or await its shipment to their specified addresses. Websites ensure that the business is always running even when there is no one to attend to customers. Therefore, most of the things and services on the website should be automatic. People should transition from one point to another on the site easily. Successful websites have a sequential design that moves the visitor from one point to another while also giving them appropriate navigation capabilities to search and move to any part of the site. Think of the website as the business with both the front-end and the back-end departments. Different people will use the website for different purposes.

### **The Sales Funnel-**

In online marketing, the website is the ultimate tool for executing a sales funnel strategy. You capture people from different sources including search engines and social media as part of your online marketing campaigns. When they get to your website, they arrive at a special page that captures their details and moves them to take action. The copywriting message you use of the website and the psychological design features implemented can help to ensure that your conversion of visitors to buyers or donors is very high.

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## **5.4 USER EXPECTATIONS FROM THE WEBSITE**

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Whenever a potential customer, or an interested viewer visits your website, there are a few expectations they will have. These include:

### **Simple Clear Design-**

First of all, your consumers expect to be able to navigate your website with ease. Your design needs to be simple and clear to follow, with an obvious and logical link structure. A confusing website will quickly be overlooked.

### **Responsive-**

In addition, your website needs to be responsive. This is because users expect to see the same content on both mobile devices and desktop. As a result, sites that don't offer a mobile version, or a quality mobile friendly website will be left behind by more competitive websites.

### **Fast to Load-**

Furthermore, your website is expected to load instantly once the link has been followed. In this day and age, people do not want to wait for anything, especially a website to load. As a result, you need to make sure that all of your images and files are the right size, and are fully optimized for faster loading times.

### **Content-**

Finally, once your website is open, and has loaded, your consumers expect to see top quality content. Spelling mistakes, inaccurate information, and even just the wrong tone of writing can cause your website visitors to leave.

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## **5.5 WEBSITE AS A RESOURCE CENTRE**

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Creating lots of quality content is great for your business. It will provide value to your customers, establish you as an authority, attract people to your website and more. But in order for it to do all of that, people need to be able to find it! A resource centre can help with that. A resource centre is the section of your website from which all of your content can be accessed. It organizes everything on your website so it's easy to find and navigate. Below are four things resource centres being good for and why every website should have one.

### **It Makes Things Easy to Find**

A resource centre can make a visitor's trip to your website much more efficient and enjoyable, especially if they're looking for information on a specific topic. Rather than searching through your entire website, they can head to your resource centre and find exactly what they need. This greatly increases a site's usability and leads to a better overall user experience.

As an example, take Apple's site for developers using Apple technology. Such a complicated topic requires a lot of information about a multitude of things. The developer's resource centre



organizes everything into categories based on the type of resource and topic. One menu allows you to select videos, guides, downloads and more. Another offers a list of subcategories under larger categories, such as “graphics and games,” “app frameworks” and “media and web.”

### **It Encourages Discovery**

Having a well-organized resource centre also allows visitors to easily and naturally discover your content. Even if they come for one specific piece of information, they may see another in your resource centre that piques their interest. This will lead them to engage more with your site and learn more about your company. If your resource centre is set up in a way that makes your content look especially interesting and appealing, you’ll have even more success encouraging discovery. SunTrust’s Personal Banking Resource Centre features various personal finance categories such as “plan & budget,” “owning a home” and “debt & credit.” The page also displays articles from around the site with eye-catching pictures and colours. It’s easy to imagine coming for one piece of information but ending up clicking through the website as you discover more and more useful stuff.

### **It’s Visually Appealing**

Resources centres are a great way to satisfy the neat freak within your visitors, as well as the design enthusiast. A well-designed resource centre page organizes what you’ve created into easily accessible categories that are also nice to look at. This improves your site’s usability. Plus, the aesthetic appeal will help make your content attractive and encourages more people to check it out. The resource centre over at CJ Pony Parts’ website organizes their articles, videos and guides into menus that features clever copy overlaid on images with visually appealing color gradients. The various colours add a splash of style and personality to the site and make the content look pretty enticing. Below this menu are recent additions that also feature striking images.

### **Visitors Will Stay Longer**

Because visitors to your site know there’s a convenient, central place to discover content, they’re likely to stay a little longer in order to discover some of it. This gives them more time to learn about your company and gain a positive impression of your brand. It also gives you more opportunities to get them interested in what you have to offer. All of the above points also make for a better user experience, as someone is always more likely to stick around if they’re enjoying their time on your website.

It’d be easy to spend a lot of time on KISSmetrics’ website if you’re interested in digital marketing, and that’s in part because of their resource centre. It provides a list of marketing guides on a variety of topics. You can scroll down the page to see their various offerings or filter them by category. Having such a wealth of information easily available encourages people to spend more time on their site.

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## 5.6 **KEY RULES AND GUIDELINES FOR INDIAN GOVERNMENT WEBSITES (GIGW) COMPLIANCE**

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National Informatics Centre has developed these Guidelines as an initiative under the National Portal of India Project. Development of these guidelines involved an extensive consultation process involving representatives from National Informatics Centre and various other Indian Government Departments, at the Centre and State levels. Established and recognised Guidelines of other countries as well as International bodies like ISO and W3C have also been referred to, while drafting these guidelines. First version of the guideline was released in 2009.

India's digital penetration has increased tremendously in past few years. Internet on mobile phones, websites and mobile apps are becoming widely used media for delivery of services across the country. As of today, there are more than 8000 Government websites in India and hundreds of official mobile apps. However, these websites and apps follow different Technology Standards, Design Layouts, Navigation Architecture, or, in simple terms, different look and feel as well as functionality. This invariably requires a common citizen to familiarize himself/herself with the functionality of each individual website which results in a lot of inconvenience, thus defeating the very purpose of these websites and apps.

The need for standardisation and uniformity in websites and apps belonging to the government cannot be stressed enough in today's scenario. These standards and guidelines make the Indian Government websites Usable, User-Centric and Universally Accessible. Additionally, they bring uniformity in the quality of content and help in the incorporation of state-of-the-art technologies in the delivery of information and services, and reinforce government's commitment to enhance the level of citizen interaction through application of internet and mobile technologies. These Guidelines are based on International Standards including ISO 23026, W3C's Web Content Accessibility Guidelines (WCAG 2.0) Rights of Persons with Disabilities Act 2016 as well as Information Technology Act of India. Following are the compliance to guidelines:

### **[1] Building Confidence**

**Content Copyright-** Copyright is a form of protection provided to the owners of "original works of authorship" in any form or media. It is implied that the original information put up on the website by a Government Department is by default a copyright of the owner Department and may be copied, reproduced, republished, uploaded, posted, transmitted, or distributed only if the copyright policy of the concerned Department allows so.

**Content Hyperlinking-** Since Government websites often receive queries and requests from owners of other websites who might want to provide a hyperlink to their web pages, every Indian Government website must have a comprehensive and clear-cut hyper linking policy defined and spelt out for those who wish to hyperlink content from any of its sections. The

basic hyper linking practices and rules should ideally be common across the websites of a State/Ministry.

**Terms & Conditions-** With the increased proliferation of Internet, more and more citizens are accessing information from Government websites. Clearly defined Terms & Conditions including well-worded disclaimers regarding the usage of websites must be present on every Indian Government website. Terms & Conditions shall address the following aspects:

- Ownership Details
- Usage Policy of Content
- Legal Aspects
- Responsibility towards hyperlinked Sites

**Privacy Policy-** Government websites should follow an extremely cautious approach when it comes to collecting personal details/information about the visitors to the sites. It should be an endeavour to solicit only that information which is absolutely necessary.

## [2] Scope of Content

**Information in Public Domain-** The content of a Government website is its soul as the citizens rely heavily upon a Government website to access authentic and up-to-date information. Ideally, an Indian Government website ought to have the following kinds of content:

- Primary Content
- Secondary Content
- Tertiary Content
- Minimum Content

**Information to avoid-** Commercial banner advertisements should be avoided on Government websites. Banner advertisements that promote and link to other Government agencies as well as social messages are permissible.

## [3] Quality of Content

**Citizen Orientation-** The crucial element of an effective presence of Government on the Web is the way its content is written and packaged. Indian Government websites should be oriented towards their prospective audience. Intended audience to the Government website could be Citizens, Businesses, Government Departments as well as Government employees. Following are the guidelines towards the same:

- The content should be selected keeping the audience in mind, not from the Government's perspective.
- Homepage of the website should be designed carefully and effectively to provide a good interface for the citizen.

- In order to gauge the content requirements of the citizens, who are the prime target audience of any Government website, Government Departments may use following means to determine the best way to identify and package information for citizens and other stakeholders: (i) Discussion Forums (ii) User satisfaction surveys (iii) Online feedback from citizens (iv) Analysing website usage reports, including search terms and statistics (v) Usability testing and research

**Content Authenticity, Accuracy & Currency-** It is the duty of every Web Information Manager to ensure that the content on his/ her website is always authentic, up-to-date and latest. This fact assumes paramount significance in the context of Government websites since the public puts a lot of trust in the information available on the official websites of any department.

**International Conventions-** Web as a medium transcends all geographic and physical boundaries. Obviously therefore, the target audience of any website could be multicultural with highly varied demographic backgrounds. It should be ensured that the content of every Indian Government website takes international and cultural conventions into account.

#### **[4] Information Architecture and Relationship**

Information Architecture is concerned with how information is organized, structured, labelled, and presented for maximum access. The content of a Government website or any website per se, has to be structured in such a way that the target audience is able to access the desired information with minimum effort. The following guidelines are important for achieving the objective of well-organized Information Architecture:

- It is imperative that the information and services on the website are well organised and categorized into relevant modules/sections and sub-sections so that any information can be located conveniently and is not buried deep inside web pages.
- The objective of the Homepage of a website is to allow the visitors to locate the desired information in the easiest possible manner. Homepages must be designed so as to prominently highlight the most requested information and services.
- Sighted users perceive structure and relationships through various visual cues present on a page (page headings are in a larger and bold font; list items are preceded by a bullet; form fields may be positioned as groups that share text labels; a different background colour may be used to indicate related items and so on).
- When the sequence in which content is presented affects its meaning, a correct reading sequence **MUST** be programmatically determined. This helps people who rely on assistive technologies like screen readers because the meaning evident in the sequencing of the information in the visual presentation will be the same when the content is presented in spoken form.

**Multilingual Versions-** India is a country with diverse cultures and as many as 22 languages. One of the major users of Government websites are common citizens with highly diverse demographic profiles. Due to the various initiatives taken by Centre and State Governments, as well as the private sector, Internet is now accessible even in the remote parts of the nation.

## [5] Design

**Visual Identity-** Design in the broad sense is a process that achieves the end result of enhancing the user experience by presenting the content in a form that is easily understandable, navigable and searchable by the user, in addition to being visually appealing. The branding of a website can be established by incorporating common design elements such as colours, logos, styles, etc., into every page. This presents a professional and consistent visual identity as well as an important signpost that tells visitors where they are. Therefore, visual/textual identity elements highlighting the Indian Government's ownership of the site MUST prominently stand out on the page.

**Page Layout-** Page Layout is a significant consideration in the overall design interface of any website. Following are some guidelines to achieve well laid out pages:

- A consistent page layout with reference to navigation elements MUST be maintained throughout the site. (placement of navigation elements should be uniform across the website).
- Focus should be laid on a few important elements of the page, so that the visitor may be guided to those portions, which deserve most attention. If a lot of elements in a webpage are blinking/flashing or highlighted, the visitor will not be able to concentrate on the essence of the page.
- There should be a clear demarcation of components. This can be guided by the Information Architecture where information of one kind is grouped together and presented visually at one point in the page.

**Graphics, Buttons and Icons-** Buttons and icons are symbolic representation of objects and the representation of actions that can be applied to objects. Icons, if used properly can be a powerful technique for communication and attracting attention. They can hold the user's attention, add interest to a website and quickly convey information. They are also free from the barriers of language.

**Typography-** The content of the site should be readable with default standard fonts. Fonts like Verdana and Georgia that are suited for screen viewing may be used. Text that must be in a particular font for reasons such as branding may use an image and provide the same as Alt (alternate) text.

When using Hindi/Regional language fonts the page MUST be tested on major browsers for any inconsistency (loss of layout). Unicode character must be used. Italic fonts are not legible in small font sizes. Paragraphs in all capital characters and italics should be used sparingly as they hinder legibility in big blocks of text. It is author's responsibility to create Web content that does not prevent the user agent (e.g., browser) from scaling the content effectively, therefore Except for captions and images of text, text MUST be resizable without the use of assistive technology by up to 200% without loss of content or functionality. Font properties should be such that the text must be readable both in electronic and print format and the content must print correctly on an A4 size paper.

**Colour-** Proper contrast between text and background is essential for users who have low vision Therefore the visual presentation of text and images of text must have a contrast ratio of at least 4.5:1 except if the text is purely for decorative purpose, is not visible, is a part of an inactive user interface or is a part of a logo where it has no minimum contrast requirement. If the text is substantially large in size (18pt or 14pt bold) it must have a contrast ratio of 3:1.

Use of colour should depend on the target audience. For example, a site for children may use bigger fonts and bright colours to grab the attention of kids while a site designed for researchers and academicians should focus on content with subtle use of colours. Websites should ensure the colours used for text and graphics look good on a variety of platforms, monitors and devices.

**Images-** Use of images for representing text should be limited: Though images add life to a website, they also increase downloading time. Images should only be used when it adds value to the content. Images should not be used to present text as those using text only browsers shall not be able to access the information thus rendering the site inaccessible to many. Size of image files should be minimised: The size of image files should be reduced as much as possible to minimise the download time of web pages. A variety of techniques can improve the download time of pages:

- Scaling of images should be avoided as they tend to distort when scaled. Instead, a correct size should be prepared in image processing software.
- A thumbnail (a smaller version) for a large image and link to the full-size copy should be provided where appropriate.

Images and other non-text content MUST be made Accessible: A meaningful explanatory text equivalent MUST be specified for images and other non-text content e.g., by using the ALT attribute. The ALT text for an image is displayed before the image is fully downloaded. But still some exceptions are there:

- If the non-text content is a control or accepts input e.g., a submit button then it must have a name describing the purpose of the control.

- If the non-text content is time-based media (audio/video) then the text equivalent provides a descriptive identification of the same.
- If non-text content is a test or exercise that would be invalid if presented in text, then text alternatives at least provide descriptive identification of the non-text content.
- If non-text content is primarily intended to create a specific sensory experience, then text alternatives at least provide descriptive identification of the non-text content.
- CAPTCHA: If the purpose of non-text content is to confirm that content is being accessed by a person rather than a computer, then text alternatives that identify and describe the purpose of the non-text content are provided, and alternative forms of CAPTCHA using output modes for different types of sensory perception are provided to accommodate different disabilities.
- If non-text content is pure decoration, is used only for visual formatting, or is not presented to users, then it is implemented in a way that it can be ignored by assistive technology (by using blank alt attribute).

The HEIGHT and WIDTH dimension attributes force the browser to allocate space for images and download the text first. The height and width specifications should be the same as the actual height and width of the image. This speeds up the time to download the web page and display the content.

**Audio / Video / Animation-** The use of audio/video clips in a website can enrich the content and render the communication more effective for the visitor; however, the following guidelines should be followed while including audio/video clips on the website.

- Download Details for Video and Audio Clips: Download information MUST be provided to help users determine whether they wish to access the video or audio clip. This includes the download and usage instructions, file size, and file format
- Text Equivalents for Video and Audio Clips: In order to ensure that content of video and audio clips is accessible to all, including those with impaired vision, hearing impaired or those accessing the information on slow connections
- Animations: The use of animation can be an effective means for drawing attention to key aspects of a website. However, Government websites should ensure that animations used on the site do not distract or irritate users or lead to unacceptable download times. Animation should be used only if it adds value to a page. File sizes of animated images should be kept small by limiting the number of frames.

**Navigation-** Consistent navigation makes it easy to use a website since a visitor does not need to understand or remember different navigation styles for different sections. Therefore, to promote ease-of-use for all citizens, Government websites must have a navigation scheme that

is used consistently across the website. The organisation and navigation scheme of the content in the website should be either categorised by subject (topic, tasks, services, life events), by audience group, by geographic location, or by any combination of these factors. Web information managers should analyse the wants and needs of citizens and other intended target groups when organizing the content of Government websites.

**Site Search-** “Search” is a standard facility on any website now as visitors expect to be guided to the desired information and service through an easy-to-use search facility. Effective search functionality is crucial for mining through the large volumes of information made available on Government websites.

**Sitemap-** The citizens visiting Government websites need to be able to find the information and services they seek, as easily and quickly as possible. A site map represents the structure of a website, textually as well as graphically, on a single page. A proper ‘Site-Map’ can provide a convenient and easy-to-understand view of the contents in the whole site. It also facilitates quick access to the information that the citizens want. Every Indian Government website MUST have a ‘Sitemap’ linked through to Homepage as well as all important entry pages of the site.

**Frames-** Frames are an HTML technique used by web site designers to display two or more pages in the same browser window. Each frame is built as a separate HTML file, but with one “master” file to identify each frame. When a user requests a page with frames, several pages are displayed as panes. Framesets are not supported in HTML5. Use of frames must be minimised as many search engines do not index framed web pages properly, however if frames are used, it should be ensured that: (i) Each frame is titled to facilitate frame identification and navigation. (ii) HTML file name of each frame is meaningful. (iii) A text title is included on each frame (this can be hidden in visual browsers).

## [6] Development

**Mark-up Languages-** Use of Open Standard based tools and technologies for the development of websites, software as well as content are very important to interoperability and accessibility of websites. World wide web consortium (W3C) is an International body working towards defining standards in web technologies and formats for publishing content on the web. HTML (Hypertext Mark-up Language) is at the core of the foundation of World Wide Web.

**Cascade Style Sheets-** Cascading Style Sheets (CSS) is a style sheet language used to describe the presentation of a document written in a mark-up language. Its most common application is to style web pages written in HTML and XHTML. The CSS specifications are maintained by the World Wide Web Consortium (W3C). Its current specifications is CSS3.

**Scripting Languages-** Scripting languages are an easy and fast means to enable or include more controls in Web pages. They can be implemented either as Server-side scripting



languages using PHP, JSP, PERL and ASP or as Client-side scripting language using JavaScript.

**File Formats-** Documents form a very important and significant component of Government websites. Indian Government Websites should therefore provide access to documents in appropriate File Formats that are based on open standards and do not impose an unnecessary burden of downloading or acquiring specific software on the intended audience.

When choosing file format(s), Departments should consider: Intended use of the material Frequency of use, Accessibility of the format and Level of effort and time required to convert the material to the specific format. File formats for different forms are as below: (i) Graphics & Multimedia files like JPEG, GIF and PNG formats and the same should be compressed without losing its visual quality. (ii) Documents like DOC, PDF and XLS etc.

## [7] Website Hosting

The fundamental purpose of a Government website is to deliver the information and services to the citizens and other stakeholders using the medium of Internet. Generally, websites/portals/web applications are hosted on special purpose servers in a Data Centre.

Data Centre is a facility equipped with controlled power, cooling systems, physical security and access control. Generally, a large number of servers are hosted in a Data Centre, powered by highspeed networking infrastructure, storage system along with a storage network. Provision for back-ups of data/information residing in Data Centres is also an important service of Data Centre. Multi-tier security infrastructure is also a crucial component of Data Centres.

While it is extremely important to develop websites using state-of-the-art technologies, hosting infrastructure plays a crucial role in the performance, availability and accessibility of these websites to end users with varying set-ups. Hence, configuration of hosting server infrastructure as well as facilities at Data Centres are important aspects to review, prior to hosting. Following section details the kinds of facilities and services that the Department should expect from their hosting service providers.

## [8] Website Promotion

Web is a medium of mass information dissemination. With the exponential growth in the number of websites, which has even crossed the one billion mark, the question of visibility on the Internet/Web has assumed critical significance. The ultimate aim of any Government website should be to provide information and services to as many citizens as possible. The existence of any Government site lying inaccessible on the web is meaningless. For this purpose, a conscious and concentrated effort has to be made to increase the reach of the website.

Therefore, the importance of website promotion, especially in the context of Government websites which aim to reach the largest possible number of citizens and stakeholders cannot be overemphasised.

**Search Engine Optimization-** People usually search for a website through search engines. Therefore, searching for a site in a search engine by using the Department name or the services offered by it as keywords should preferably bring the website in the first five results on major search engines.

**Website Promotion Techniques-** Apart from search engines the website may be promoted through other media like print, television etc. This will prompt casual visitors to browse the website and if they find the information useful, they may visit the site more often.

## [9] Website Management

**Website Management Team-** The success of any endeavour depends upon the backing of a strong and enthusiastic team. In case of a Government website, the role of a Website management team assumes paramount importance in ensuring its credibility amongst its patrons.

**Website Maintenance Tools-** Web is a dynamic medium and a website grows with time with addition of new content and features. The website therefore requires regular maintenance to ensure that the quality is maintained and it meets the expectations of the visitor. With the increase in content size and complexity, it becomes difficult to manually maintain the site and therefore automated tools should be used for updating, analysis and checking the site. It is intended that the practice of using these tools may be adopted from the beginning as it avoids difficulties later. Some such tools are:

- **Website Authoring Tool:** Website Authoring Tool is a software for generating well-engineered web pages.
- **Web Content Management System:** A web Content Management System (CMS) is the software used for creating and managing web content. It is used to manage and control a large, dynamic collection of content on a website/portal (HTML documents and their associated documents and files). CMS facilitates content creation, content control, editing, and many essential content maintenance functions.
- **Web Analytic tools:** Many organisations rely on statistics regarding site usage to measure the impact of the site and also for reorganising or enhancing their website further.
- **Validation and Testing:** The code of the webpages, scripts and applications may be tested manually or with automated tools to ensure that the quality of web content is maintained and all compliance related guidelines are adhered to.

## [10] Website Monitoring

Web being a dynamic medium, changes in terms of technologies, access devices and even the requirements and expectation levels of visitors happen frequently. Keeping this in mind, Indian Government websites MUST have a website monitoring policy in place. Websites must be monitored periodically in accordance with the plan to address and fix the quality and compatibility issues around the following parameters:

- **Performance:** Site download time should be optimised for a variety of network connections as well as devices. All-important pages of the website should be tested for this.
- **Functionality:** All modules of the website should be tested for their functionality. Moreover, interactive components of the site such as discussion boards, opinion polls, feedback forms etc. should be working smoothly.
- **Broken Links:** The website should be thoroughly reviewed to rule out the presence of any broken links or errors. A number of tools and techniques are now available to easily detect the broken links in a website.
- **Traffic Analysis:** The site traffic should be regularly monitored to analyse the usage patterns as well as visitors' profile and preferences. Traffic Analysis tools also give reports on broken links.
- **Feedback:** Feedback from the visitors is the best way to judge a website's performance and make necessary improvements. A proper mechanism for feedback analysis should be in place to carry out the changes and enhancements as suggested by the visitors.

**Archiving of Documents-** Government websites generally are storehouses of a large number of documents and reports, which are of relevance and importance to specific audiences as well as citizens at large.

**Website Review & Enhancement-** Departments and Organisations that own Government websites, and the citizens they serve, want these websites to be as useful as possible. Government Departments at all levels should evaluate visitor satisfaction and usability of their websites and use the outcome of assessments to improve the websites.

**Website Policies-** Websites represent the face of the department in the cyber world. Like the Department itself, the website also has to continually grow and evolve. As the website grows in size and reach, the expectations of the citizen also grow. It is therefore important that we set down rules and regulations to operate and manage the websites effectively. Although different policies and their need and purpose is explained in various sections of this document for the sake of convenience, a complete list of policies along with the section are referenced below:

- Copyright Policy
- Hyper linking Policy

- Terms & Conditions
- Privacy policy
- Content Contribution, Moderation and Approval Policy (CMAP)
- Web Content Review Policy (CRP)
- Content Archival Policy (CAP)
- Website Security Policy
- Contingency Management
- Website Monitoring Policy

All the above policies MUST be duly approved by the Web Information Manager.

### **[11] Mobile App Guidelines**

There has been a spurt in development of mobile applications due to shift to digital governance. This has empowered citizens like never before. Most of the mobile platforms come bundled with assistive technologies which has been a boon for persons with disabilities. Developers should give due consideration to platform specific features including accessibility in order to ensure rich and useful experience for all users. In addition, the overall app market in India has also grown manifold. The users are downloading apps for accessing various everyday services like transportation, communication, health and entertainment. However, for persons with disabilities, many of these apps, and consequently the services they provide, are inaccessible and often impossible to use.

**Mobile Applications Policies-** Privacy Policy for Mobile Application: Privacy policy should be a carefully written document clearly stating purpose of collecting the information if any through the app. It should also clearly state the mobile resources app is liable to use such as contact list, SMS, Folders, etc. IPR and Copyright: As mobile applications are hosted on Play stores which are essentially a public platform IPR and copyright have an extremely important role to play. An appropriate copyright notice can help deter infringement/plagiarism of the app as well as associated APIs.

Copyright statements can also be uploaded on the play stores along with the app clearly indicating the ownership. Before launching an app get the app Name and logo protected through IPR (<http://ipindia.gov.in/index.htm>). Ministries/Departments owning the app should identify competent authority to report/ escalate issues related to copyright infringement and misuse of APIs.

**Terms and Conditions-** Clearly worded terms and condition will set the rules and regulation that needs to be followed by the owner of the app and the users of the app. Terms & Conditions shall address the Ownership Details, Usage Policy of Content, Legal Aspects.

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## **5.7 POINTS TO REMEMBER**

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- A professional, well-designed site not only creates an inviting environment for visitors to explore your company, but also builds trust with your potential customers.
- About 80% of internet users are coming from a mobile device. This means that aside from your professional business website, you also have to make sure it's mobile-friendly and that it functions well.
- It is the informal or formal office online that people will go to when they are looking for your business online.
- the website is a tool for branding and public relations.
- The website will also serve as a shop where visitors come and get products or services. They will use guidelines on the website to pay and then proceed to checkout and download the product or await its shipment to their specified addresses.
- In addition, your website needs to be responsive. This is because users expect to see the same content on both mobile devices and desktop.
- If your resource centre is set up in a way that makes your content look especially interesting and appealing, you'll have even more success encouraging discovery.
- A well-designed resource centre page organizes what you've created into easily accessible categories that are also nice to look at. This improves your site's usability.
- National Informatics Centre has developed these Guidelines as an initiative under the National Portal of India Project.
- Copyright is a form of protection provided to the owners of "original works of authorship" in any form or media.
- The basic hyper linking practices and rules should ideally be common across the websites of a State/Ministry.
- Government websites should follow an extremely cautious approach when it comes to collecting personal details/information about the visitors to the sites.
- Indian Government websites should be oriented towards their prospective audience. Intended audience to the Government website could be Citizens, Businesses, Government Departments as well as Government employees.

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## 5.8 GLOSSARY

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- ROI- Return on Investment
- ISO- International Organization for Standardization
- W3C- World Wide Web Consortium
- WCAG- Web Content Accessibility Guidelines
- JPEG- Joint Photographic Experts Group
- GIF- Graphics Interchange Format
- TIFF- Tagged Image File Format
- PDF- Post Document Format

- HTML-Hypertext Mark-up Language
- CSS- Cascade Style Sheets
- JS- Java Script
- PHP- Hypertext Pre-Processor
- JSP- Java Server Pages
- ASP-Active Server Pages

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## 5.9 CHECK YOUR PROGRESS

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### Descriptive Type Questions-

- a) What is website?
- b) How the website is important to the user and the organization both?
- c) Explain the roles of website?
- d) Explain the expectations of user from the website?
- e) Website acts as a resource centre. Explain?
- f) Notify the rules & guidelines towards the compliance for Indian government websites?

### Objective Type Questions-

- a) When you can point customers, partners, potential employees or even investors to your website, it lets them know you are a serious business. [True/ False]
- b) Google, Bing and Yahoo! are social media websites. [True/ False]
- c) Mobile users are rapidly growing day-by-day as compare to desktop/laptop/tablets users. [True/False]
- d) The best way to get your ROI is to invest in your online presence. [True/False]
- e) The website is one of the un-necessary tools for branding and public relations. [True/False]
- f) In online marketing, the website is the ultimate tool for executing a sales funnel strategy. [True/False]
- g) Visually Responsive website means it can validate itself according to the device opening the website. [True/False]
- h) CSS stands for .....
- i) If the visitors copy the data from your website then it gives you more opportunities to get them interested in what you have to offer. [True/False]
- j) HTML stands for .....

### Answer (Objective Type Question)-

- a) True      b) False      c) True      d) True      e) False      f) True

g) True            h) Cascade Style Sheets            i) False            j) Hypertext Mark-up Language

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  - [https://www.researchgate.net/publication/282507225\\_Online\\_Resources\\_and\\_Web\\_Search](https://www.researchgate.net/publication/282507225_Online_Resources_and_Web_Search)
  - GIGW Manual - <https://web.guidelines.gov.in/content>.
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### **5.11 SUGGESTED READINGS**

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- <https://www.forbes.com/sites/forbesagencycouncil/2019/10/04/the-role-of-a-website-today/?sh=30c9a1e241e8>
- <https://blog.marketo.com/2013/02/how-to-create-an-amazing-content-resource-center.html>

## UNIT- 6

### FACEBOOK- TOOLS AND ACTIVITIES- II

|      |                                  |
|------|----------------------------------|
| 6.1  | INTRODUCTION                     |
| 6.2  | OBJECTIVES                       |
| 6.3  | FACEBOOK & BUSINESS: AN OVERVIEW |
| 6.4  | FACEBOOK BUSINESS MANAGER        |
| 6.5  | FACEBOOK ADS MANAGER             |
| 6.6  | FACEBOOK SHOP                    |
| 6.7  | POINTS TO REMEMBER               |
| 6.8  | GLOSSARY                         |
| 6.9  | CHECK YOUR PROGRESS              |
| 6.10 | BIBLIOGRAPHY/ REFERENCES         |
| 6.11 | SUGGESTED READINGS               |

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#### **6.1 INTRODUCTION**

We have already discussed Facebook in previous chapters. And, we already came to know that it is one of the main social media platforms used by millions of peoples. It is not only used for sharing social content and getting in touch with friends but also used to publicize business to large extent. In this unit, we will focus much on advanced topics of Facebook usage. There are many businesses, start-ups, and established, connect with people on Facebook. Several tools and activities on Facebook are developed to help the business to meet their specific goals. Business Manager tools are one of the main features that are very helpful for the business to advertise themselves. We will discuss such tools and features in detail in this unit.

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#### **6.2 OBJECTIVES**

After the successful completion of this unit, you will be able to-

- Understand the role of Facebook in business.
- Know about advanced tools Facebook.
- Know the details of Advertising on Facebook.



- Best practices of using Facebook.

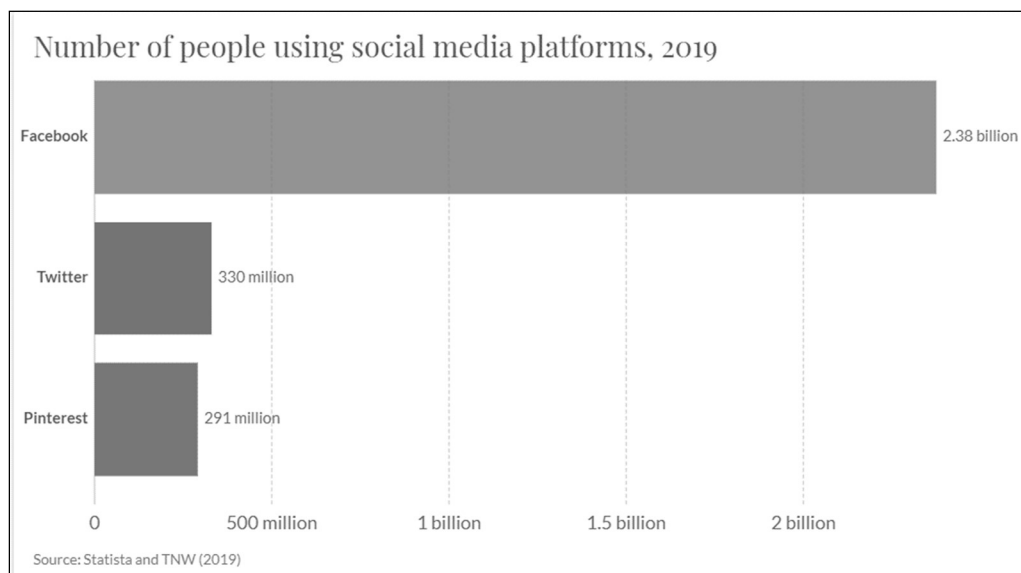
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### 6.3 *FACEBOOK & BUSINESS: AN OVERVIEW*

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Recently, organizations from various portions have been investigating web-based media for different purposes, including for showcasing. That includes creating and sharing substance via online media stages to advance a help or item, imagining to accomplish marking objectives. Social media has changed the world. The fast and tremendous reception of these advancements is changing how we discover accomplices, how we access data from the news, and how we sort out to request the political change.

Facebook shares the largest social media platform with almost 2.4 billion users. Therefore, it is obvious that businesses are targeting social media for their advertisement. As they know that most of their target audience is on Facebook.



There is much research going on suggesting the taste, opinion, and behavior of customers on social media. Users of social media platforms like Facebook can see and react to business content on their profiles. All organizations continually search for better approaches to expand advertising incomes and broaden their momentum client base. Facebook gives numerous situations, focusing on, and arranging alternatives that permit sponsors to explore different avenues regarding many setting varieties without a moment's delay. There are about 7 million reported advertisers on Facebook per month.

Many facilities (tools and activities) are available on Facebook that is used to facilitates business and customer interaction efficiently. In the below section, we will able to see and work on these tools and features.

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### 6.4 *FACEBOOK BUSINESS MANAGER*

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Facebook Business Manager is an all-inclusive resource where you can deal with the whole of your showcasing and publicizing action on Facebook. Worked for organizations, all things considered, permits you to make advertisements, deal with numerous resources, for example, Facebook Pages and Instagram profiles, and effectively share admittance to these resources across your group and with outside accomplices.

### **Why we use Business Manager (Facebook)?**

Business Manager is useful to those who advertise on Facebook and shares multiple pages and advertisement accounts with other people –

- It provides a secure means to manage pages and accounts.
- The manager will get access to the views and work of other people associated with the business account.
- Businesses get separated from a personal Facebook profile.

### **Creating a Business Manager Account –**

Business Manager Account will assist you with taking care of and sort out your business. There is a need for a Facebook account to create a Business Manager account.

To create a Business Manager Account-

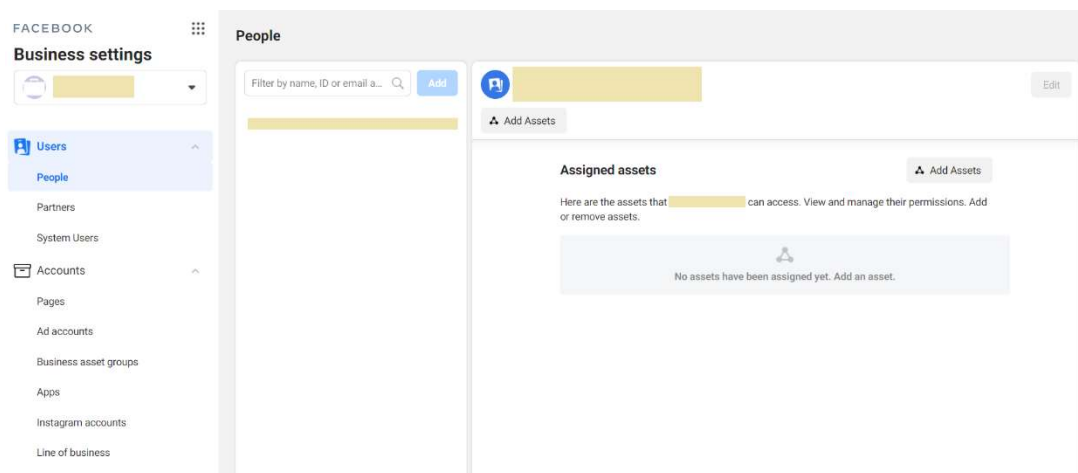
1. Go to [business.facebook.com/overview](https://business.facebook.com/overview).



2. Click Create account.
3. Enter a name for your business, your name, and work email address and click Next.

The screenshot shows a 'Create your Business Manager account' dialog box. It contains three main sections: 'Your business and account name', 'Your name', and 'Your business email address'. Each section has a text input field and a brief instruction. A 'Submit' button is located at the bottom right of the dialog. The background shows a dark Facebook Business interface with a 'CREATE ACCOUNT' button in the top right corner.

4. Enter your business details and click Submit.

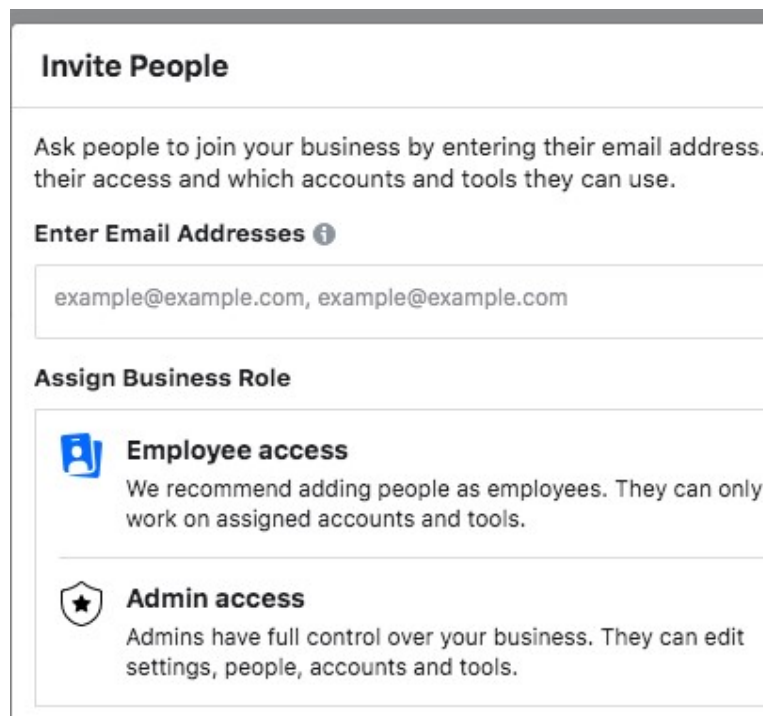


### Business Manager Dashboard

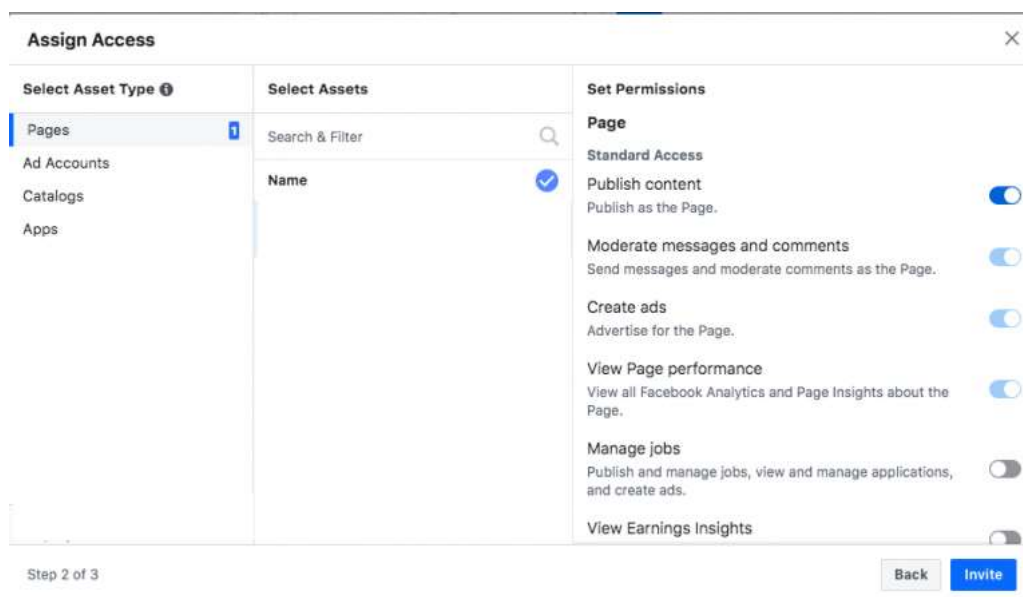
#### Add People to Your Business Manager –

To give people access to your business:

1. Go to Business Settings.
2. Click **People**.
3. Click + **Add**.
4. Enter the work email address of the person you want to add.
5. Assign the role (Employee or Admin Access)
  - a) Read the description for each role.



6. Click **Next**.
7. Choose a type of asset in the first column, then select the individual assets you want to add this person to in the second column. In the third column, toggle on each task you'd like to grant them. Or, toggle on admin access to allow them to manage the asset and perform all available tasks. You can add people to multiple assets on this screen by repeating this step.



8. Click **Invite**.

**Assign Access to the business team –**

This is the most important feature of the Business Manager. Through this feature, you can assign different permission access to the people who work for your business. This gives you better control over your asset and information.

Two layers of permissions exist in Business Manager –

## 1) Permissions are specific to Business Manager-

[a] Business admins- Business administrators can handle all parts of the Business Manager, including adding or eliminating individuals from the worker list and altering or erasing the business.

[b] Business employees- Business workers can see all data in the business settings and can be allotted jobs by business administrators, yet can't roll out any improvements.

## 2) Permissions across Pages and Assets-

[a] Pages- Pages are resources constrained by the business they speak to. Pages must be asserted by one Business Manager; however, they can have numerous accomplices or individual records that entrance, post, and purchase advertisements.

[b] Ad Account- Ad accounts permit organizations to buy publicizing on associated Pages or applications. Advertisement records should be possessed by the Business Manager of the gathering overseeing solicitations. In any case, promotion records can be imparted to any business so they can run advertisements or perform investigations for your business.

[c] Apps- Applications can be guaranteed and claimed inside Business Manager and imparted to Business Manager accomplices who can deal with the application settings.

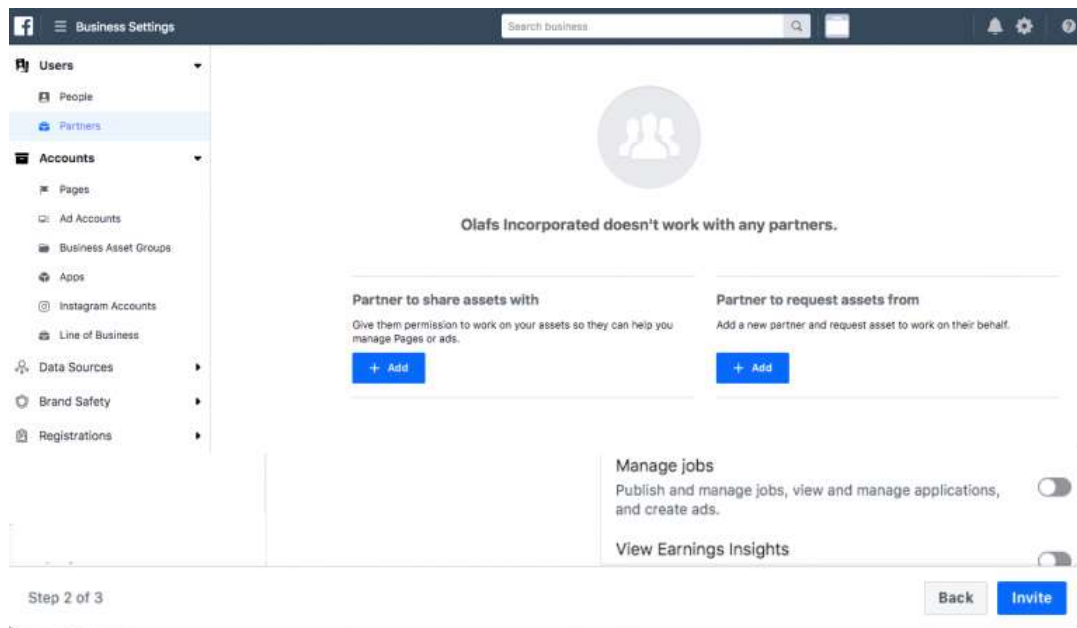
[ d] Pixels- Every Business Manager can make up to five pixels, which can be imparted to Business Manager accomplices. If another person is dealing with your advertisements for you, you can appoint them association to the pixel by choosing "Assign partner" and entering their business ID.

[e] Audience- Shared Audience permits others to get to the crowds you've made for your advertisements. You can mass divide Custom and Lookalike Audiences among advertisement accounts as well as media organizations if both the sharer and beneficiary are attached to a Business Manager.

**Get your Business partners or Ad Agency in Business Manager Account-**

1) From the dashboard, click Business Settings at the top right.

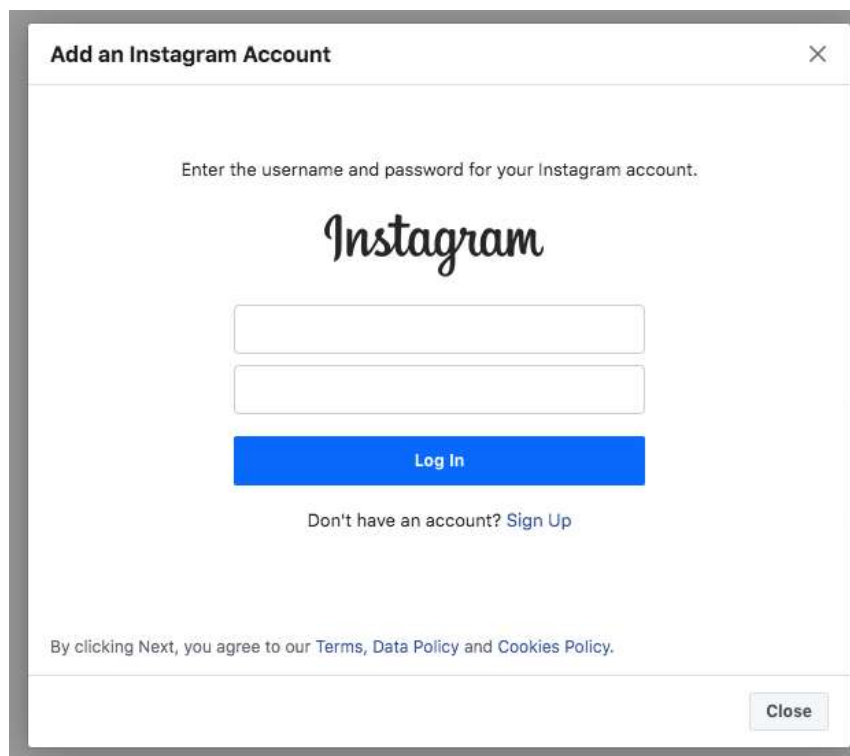
- 2) In the left menu, click **Partners**. Under Partner, click **Add** to share assets.



- 3) Your partner needs to have an existing Business Manager ID. Get it from them. Enter the ID and click **Add**.

### Adding Instagram Account to Business Manager Account –

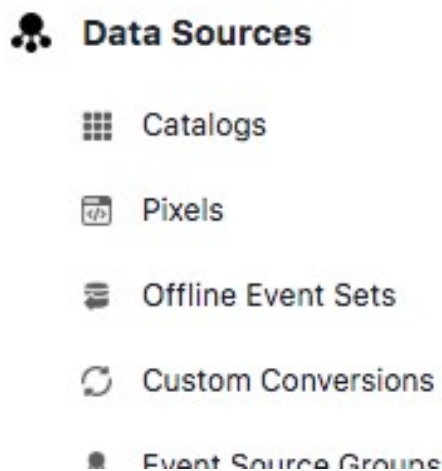
- 1) From your dashboard, click **Business Settings** at the top right.
- 2) In the left column, click **Instagram Accounts**, then click **Add**. In the pop-up box, enter your Instagram login information and click **Log In**.



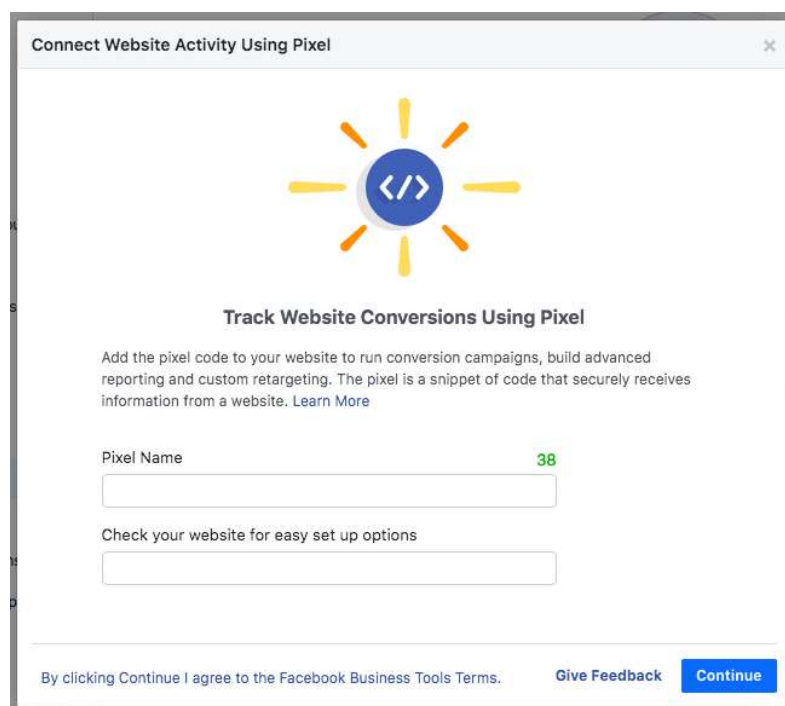
## Setting up Facebook Pixel –

Facebook generates a small code for you known as Facebook Pixel. This code has to be placed on your website, and it gives you admittance to data that will permit you to follow changes, advance Facebook promotions, fabricate focused on crowds for your advertisements, and remarket to leads. You can create up to 10 pixels with your Business Manager

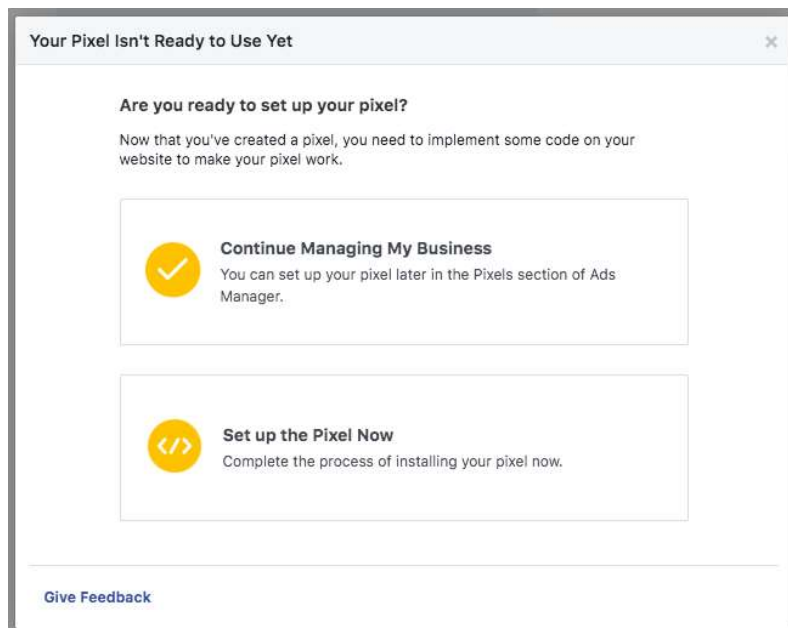
- 1) From your Business Manager dashboard, click **Business Settings**.
- 2) In the left column, expand the **Data Sources** menu and click **Pixels**, then click **Add**.



- 3) Give a name (up to 50 characters) to your pixel.
- 4) Enter your website URL, so Facebook can provide the recommendations for how to set up your pixel, then click Continue.

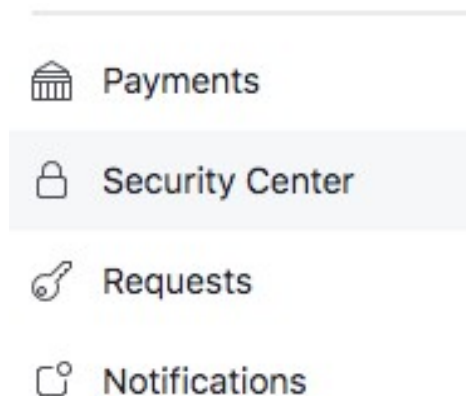
A screenshot of the 'Connect Website Activity Using Pixel' dialog box. The dialog has a title bar with a close button. The main content area features a sun-like icon with a code symbol in the center. Below the icon, the text reads 'Track Website Conversions Using Pixel' followed by a paragraph explaining the pixel's purpose and a 'Learn More' link. There are two input fields: 'Pixel Name' with a character count of 38, and 'Check your website for easy set up options'. At the bottom, there is a checkbox for terms and conditions, a 'Give Feedback' link, and a blue 'Continue' button.

## 5) Click **Set up the Pixel Now**



## **Business Manager Account Security –**

- 1) From the Business Manager dashboard, click **Business Settings**.
- 2) In the left menu, click **Security Center**.



- 3) Set up two-factor authentication. Setting it as **Required for Everyone** offers the highest security.



## ✓ Two-factor authentication • Required for evi

Requires others to log in with their phone as well as a password.

Required for everyone ▼

### Manage Your Personal Settings

Text Message (SMS) to

Use your phone as an extra layer of security to keep other people from accessing your account.

[Edit Settings](#)

### Code Generator

Generate a special login code to authenticate your login on a phone you haven't used before.

[Edit Settings](#)

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## 6.5 FACEBOOK ADS MANAGER

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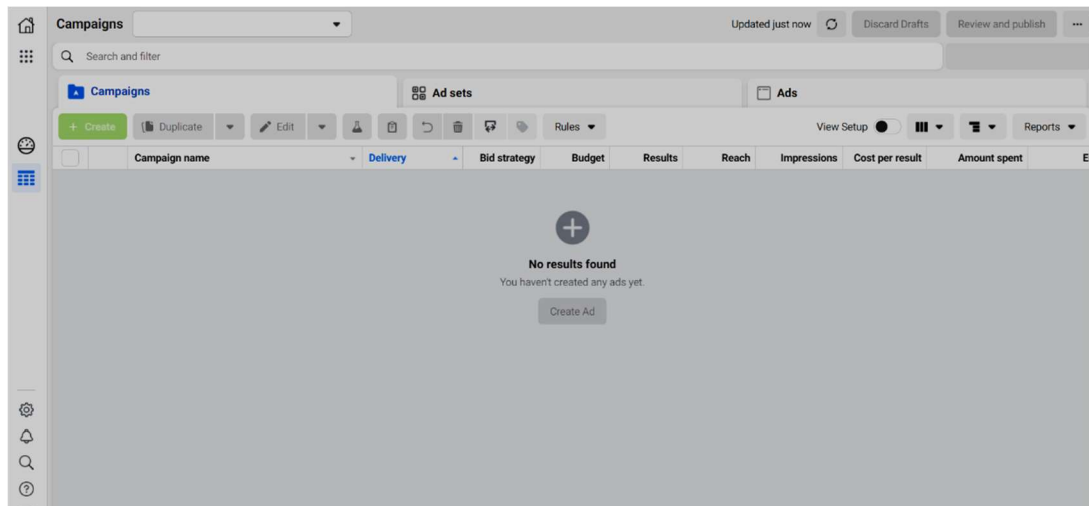
Ads Manager is a tool on Facebook that is used to create and manage Advertisements on Facebook. You can also check the various result of your Ad campaigns using Ads Manager.

### Features of Ads Manager -

- Create Ad Campaign- Ad Creation feature can be used to create various ads for your business. While creating an Ad Campaign, the facility of choosing a marketing objective, target audience, and target places.
- Manage Multiple Ads- In Ads Manager, you can alter settings – for example, audience, a spending plan, and situations – across numerous advertisements and make duplicates of your promotions by copying them
- Check Ads Result- View up-to-date information on the exhibition of your advertisements and timetable reports. You can see results at the record level to significant level perspective on how the entirety of your missions are getting along, apply breakdowns to see the measurements you care about and make or timetable advertisement reports.

### Creating Ads in Ads Manager –

Facebook Ads Manager is a bound together advertisement creation instrument that you can use to make and distribute promotions to Facebook, Instagram, Messenger, and Audience Network.



To create Ad, follow the steps –

- Create your campaign - From the Ads Manager, select **Create** to open the **Create a campaign** window. Now select the basic settings for your new campaign, ad set, and ad. You can also use existing campaigns, ad sets, or ads to create new ones.
- More settings - Select **Continue** to move on to the editing pane. In the editing pane, select a campaign objective, audience, placement, and ad format.
- Publish or save as draft: When you're ready, select **Publish** or **Close** to save your draft.

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## 6.6 FACEBOOK SHOP

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Shops are a simple path for you to make a computerized retail store across our group of applications. Your shop enables you to rouse your clients and help them discover the items that are ideal for them. Shops are easy to set up, consistent to utilize, load quicker contrasted with a versatile site, and are worldwide in scale.

### For Whom and How Facebook Shop Works -

- 1) Vendors who recently had an Instagram profile shop and additionally Facebook Page shop will be incited to change over to shops. Before setting up your shop, you will see an email or notification that you would now be able to utilize Facebook Shops. Organizations with a connected Facebook Page shop and Instagram profile might be qualified to have a shared customer across both Instagram and Facebook.
- 2) New vendors can make a shop in Commerce Manager. You can create a shop in Commerce Manager if you've not created an Instagram profile shop and/or Facebook Page shop,
- 3) You can make the collection to customize your shop and get more clients. You have to use the Commerce Manager to modify your shop and to make, organize, and redo your

collection. Every collection will have a name, portrayal, cover media, and incorporate at any rate at least two items. You can coordinate items into the collection with a collection of topics that can help your clients discover items that are ideal for them.

- 4) Shops show your image and items in a local versatile encounter. After Publishing, clients will have the option to check and use it through the Facebook or Instagram application on Apple or Android gadgets.
- 5) Shops give a bound together presence on Facebook and Instagram. Shop customization highlights are brought together across the group of applications. This implies that if you have a shop that is available from both your Instagram profile and your Facebook Page.

### Setting up Facebook Shop

Before starting shop on Facebook, you must-

- Have Business Manager admin
- Own your Facebook Page and catalogue in the same Business Manager
- Have Manage Page permissions for the Page and Manage catalogue permissions for the catalogue in Business Manager

Now for creating Shop follow the following steps

- Go to **Create your shop** page.
- select **Create a shop** and click **Get Started**.
- In the **Assets** section click + **Create** a shop.
- Set up your shop section, select Your website. Click Get Started.
- Select the business you'd like to add to your shop and Click **Next**.
- In the Account Details section, provide an account name and select a business account. Click Next.
- Select where you'd like to create your shop. If you have an Instagram business profile and a Facebook Page, you can select both.
- In the Catalogue section, select an existing catalogue or create a new one and click Next. You can only select one catalogue to use for your shop and you can't switch it later.
- Look over your shop details, review and agree to the Seller Performance and Accountability Policies, and click Create your shop.

**Creation of your Shop is completed. Now you can:**

- **Create a collection** - You can create collections of 6 to 30 products.
- **Customize your shop** – You can your collection and customize the look and feel of your shop.

- **Publish your shop** - People can see your shop within 24 hours.

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## 6.7 POINTS TO REMEMBER

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- There are many businesses, start-ups, and established, connect with people on Facebook.
- Facebook shares the largest social media platform with almost 2.4 billion users.
- There are about 7 million reported advertisers on Facebook per month.
- Business Manager tools are one of the main features that are very helpful for the business to advertise themselves.
- Facebook Business Manager is an all-inclusive resource where you can deal with the whole of your showcasing and publicizing action on Facebook.
- Business Manager Account will assist you with taking care of and sort out your business.
- Facebook generates a small code for you known as Facebook Pixel.
- Facebook Shops are a simple path for you to make a computerized retail store across our group of applications.

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## 6.8 GLOSSARY

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- **Ad account** - Grouping of all your specific ads activity. Your ad account includes different campaigns, ads, and billing information.
- **Campaign ID** - The unique ID number of the advertising campaign that you're viewing in reporting. Your campaign contains ad sets and ads.
- **Account Settings** - These settings are used to manage basic account preferences. Here you can edit your name or email, change your notification preferences, turn on extra security features, and more.
- **Notifications** - Notifications are updates about activity on Facebook.
- **Page** - Facebook Pages help businesses, organizations, and brands share their stories and connect with people
- **Page Admin** - When you create a Page, you automatically become the Page's admin, which means only you can change how the Page looks and post as the Page.
- **Page Views** - Page views are the total number of times your Facebook Page was viewed during the period you select.

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## 6.9 CHECK YOUR PROGRESS

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### Descriptive Type Questions-

- a) Why Facebook is now popular among businesses?
- b) What is Facebook business Manager? Explain in detail
- c) List the major benefits of Advertising business on Facebook.

- d) What is a Facebook shop? How can we set up a shop on Facebook?
- e) What is Facebook Pixel? How can we use pixels on our website?
- f) List the name of different business tools used in Facebook.

### Objective Type Questions-

- a) We can use Facebook Shops on Instagram. (True/False)
- b) You can create a collection of 100 to 1000 products at a time in Facebook shops. (True/False)
- c) There are about 7 million reported advertisers on Facebook per month. (True/False)
- d) Facebook generates a small image for you as Facebook Pixel. (True/False)
- e) It takes about 3 days to publish your shop on Facebook, so that people can see it. (True/False)
- f) ..... are the updates about activity on Facebook.
- g) ..... is the unique ID number of the advertising campaign that you're viewing in reporting?

### Answer (Objective Type Question)-

- [a] True      [b] False      [c] True      [d] False  
 [e] False      [f] Notifications      [g] Campaign ID

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- <https://www.esasd.net/cms/lib/PA01001915/Centricity/Domain/991/Facebook%20Basics%202014%202015.pdf>
- <http://wilegion10thdistrict.org/Facebook%20Tutorial.pdf>
- <https://www.facebook.com/business/learn>
- <https://developers.facebook.com/products#business-tools>

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## 6.11 SUGGESTED READINGS

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- <https://developers.facebook.com/products>
- <https://www.facebook.com/business/help/>
- <https://developers.facebook.com/docs/facebook-login/>
- [https://www.tutorialspoint.com/facebook\\_marketing/index.htm](https://www.tutorialspoint.com/facebook_marketing/index.htm).

## UNIT- 7

### TWITTER - TOOLS AND ACTIVITIES- II

7.1 INTRODUCTION

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7.2 OBJECTIVES

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7.3 TWITTER & BUSINESS: AN OVERVIEW

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7.4 SETTING TWITTER FOR BUSINESS

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7.5 MARKETING YOUR BUSINESS IN TWITTER

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7.6 PROS & CONS OF USING TWITTER FOR BUSINESS

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7.7 POINTS TO REMEMBER

---

7.8 GLOSSARY

---

7.9 CHECK YOUR PROGRESS

---

7.10 BIBLIOGRAPHY/ REFERENCES

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7.11 SUGGESTED READINGS

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### **7.1 INTRODUCTION**

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Twitter is a social media platform where people connect and converse with each other through short messages called tweets. We have already gone through the basics of Twitter in previous units. Other than conversing, news content, business feedback, website links, photos, and videos, etc. are also shared on Twitter.

Twitter also recommends tweets to users according to their interests. This enables various businesses to post product-related tweets, for the growth of their sales. In this unit, we will focus much on advanced topics of Twitter usage. There are many businesses, start-ups, and established, connect with people on Twitter. Several tools and activities on Twitter help the business to meet its goals.

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### **7.2 OBJECTIVES**

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After the successful completion of this unit, you will be able to-

- Understand the role of Twitter in business.
- Know about advanced tools on Twitter.

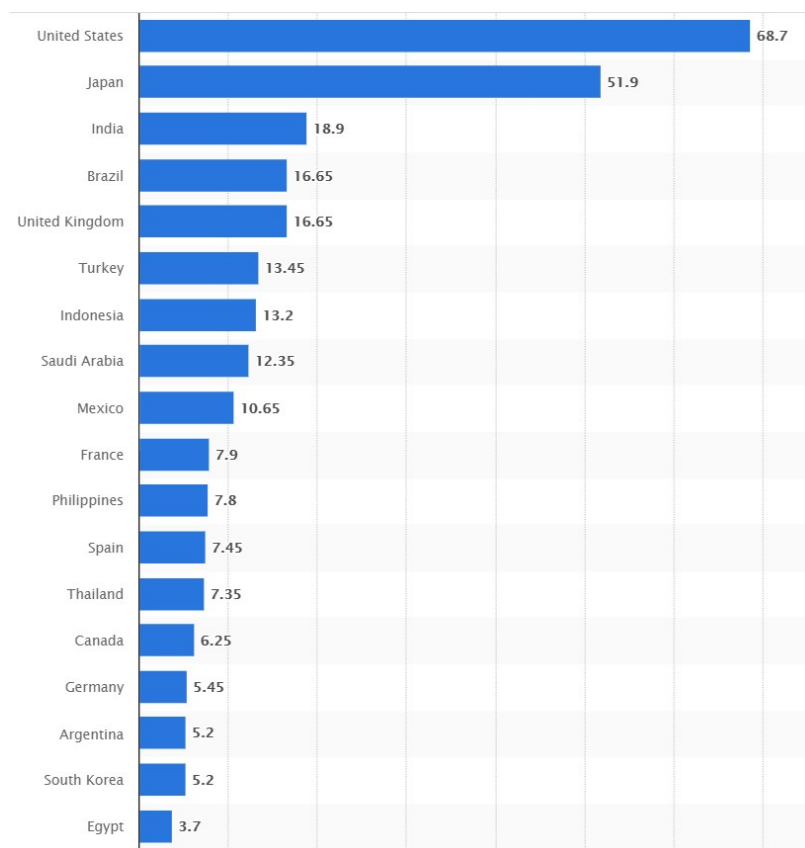
- Best practices of using Twitter.

### 7.3 TWITTER & BUSINESS: AN OVERVIEW

Twitter furnishes organizations with the occasion to share data and increment the span of good quality articles/reports. According to a study, almost 80% of total Twitter users mentioned a brand name in their tweets.

For using the market effectively, there should be a Twitter marketing strategy. A Twitter promoting methodology is much the same as some other online media system - it is based on the substance you make, distribute, and convey to draw in your supporters. Your business probably as of now has significant level business destinations, and Twitter is a channel that can help you arrive at those objectives. For organizations, Twitter can be an amazingly ground-breaking relationship building, the relationship between the executives, and client assistance instrument. Sharing incredible substance to Twitter can likewise drive a flood of traffic to your site, allowing you the chance to change over those guests into leads, and sustain those leads into clients.

As of the final quarter of 2019, Twitter had 152 million every day dynamic clients around the world.



Countries with the most Twitter users 2020 (in millions)

Twitter can also help an organization for-

- Screen and interconnect with individuals discussing your organization, industry, and contenders.
- Create a buzz around forthcoming occasions.
- Allow singular representatives to go about as contacts to the general population.
- Develop direct associations with bloggers and columnists for potential public relations.

### **Twitter benefits for Business**

- Contact a wide crowd: Twitter has a huge client base, which could incorporate your possible clients. Utilizing hashtags can help you contact a crowd of people inspired by a specific subject or in a specific area.
- Convey client care: The stage permits direct two-route correspondence with your clients. Since it's a public collaboration, on the off chance that you do it well it shows your business in a positive light.
- Brand character: Being on Twitter can help convey your image ethos and character. This should help your business appeal to your intended interest group.
- Client Feedback: Twitter can be a helpful asset for get-together criticism from clients.
- Cost: It is complimentary to set up a Twitter account. While paid advertisements are accessible, numerous organizations see profits by natural posts and connections.

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## **7.4 SETTING TWITTER FOR BUSINESS**

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There are many parts of a Twitter profile –

- A Twitter handle/ a username - Your Twitter handle is your @name and is your identifier on Twitter. It can have up to 15 characters and should help individuals discover your business without any problem.
- Profile Picture - Your profile photograph ought to outwardly speak to your business and brand. Your profile photo is shown on your profile and in each tweet you post.
- Biography - For your profile bio, you have 160 characters to depict your business. Incorporate data, for example, your area, business hours, and a connection to your site.
- Header image - The header picture behind your profile picture can be utilized to feature advancements, occasions, or news about your business.
- Pinned Tweet – A pinned tweet is the main tweet individuals see when they visit your profile. You can change your pinned tweet at whatever point you need.

All these things should work together to create and represent your business.

### **Using Twitter for Business-**

#### **[1] Handle client issues through direct messages-**

Direct messages have advanced throughout the long term, particularly for brands. How you connect with customers is significant for investigating issues and taking care of issues. It's good to deal with clients through Direct Messages for reasons like-



- you don't need different clients to see the issue and think less about your organization.
- There is no character limit on Direct Messages, which allows you to appropriately help clients without being restricted to a specific number of characters. As a matter of course, just clients you follow can send you a message.
- You can set up your Twitter record to get messages from anybody, making it simpler for all clients to get in touch with you.
- Just go to Privacy Settings and empower Receive Direct Messages from Anyone.

### **[2] Use Hashtags properly-**

Hashtags allow clients to label a recognizing word or expression that bunches hundreds (or thousands) of tweets together. They are reachable(searchable) and offer the ideal assistant for live occasions. Hashtags are an extraordinary method for expanding the visibility of your tweets. There are numerous famous hashtags that most dynamic Twitter clients know about, as #FollowIndiaCricketTeam and #ThrowbackSunday.

You can likewise make your hashtags to cause you to notice your image or to occasions, you are holding, however, it's conceivable it may not catch on. Numerous brands hook onto trending points to add to the discussion or sell their item.

### **[3] Use Photos, Survey –**

Twitter permits clients to amount to four photographs to posts. You can likewise make designs to add to your tweets. Utilizing photographs with your tweets is an incredible method to interface with adherents.

One entertaining approach to include your client is to make a survey. Specialty your inquiry and select the reactions. The survey remains to exist for 24 hours; of course, however, you can abbreviate that period if you like.

### **[4] Live Tweets –**

Live-tweeting is another approach to get a point moving on Twitter. Live-tweeting is the point at which a client tweets their responses to a live occasion as it is going on, regardless of whether that is breaking news or amusement related. At the point when brands start occasions and need their participants to live-tweet while they're there. Live-tweeting most regularly happens with TV shows and broadcast occasions. At the point when you're live-tweeting or utilizing numerous tweets for a similar theme, react to your unique tweet. This makes it simpler for clients to follow the whole discussion.

### **[5] Twitter Chats –**

Another approach to draw in adherents or get a theme moving is by facilitating a Twitter chat. Twitter chats are direct, yet they require a moderately enormous and dynamic supporter base to be fruitful. A Twitter chat happens when a few Twitter clients examine a particular point all the while utilizing a shared hashtag.

### **[6] Advertise on Twitter –**

For advertising on Twitter, there are plenty of paid advertisement tools/options available-

- Promoted Tweet - These promotions are much the same as normal tweets, and they show up in a client's Twitter channel alongside posts from individuals the client follows. Promoted Tweets are a path for promoters to build commitment and grow their compass to a more extensive gathering of clients past their user base.
- Promoted Trends – These Trending topics appear on the trend box on Twitter. Promoted tweets target specific users, but promoted trends visible to all users. They are also visible to Twitter’s mobile apps.
- Promoted Accounts - Promoted Accounts are intended to assist brands with getting discoverable and become their number of users. These advertisements are shown in various areas on Twitter, remembering the Who to Follow box for the landing page, your landing page's Twitter channel, and search bar.

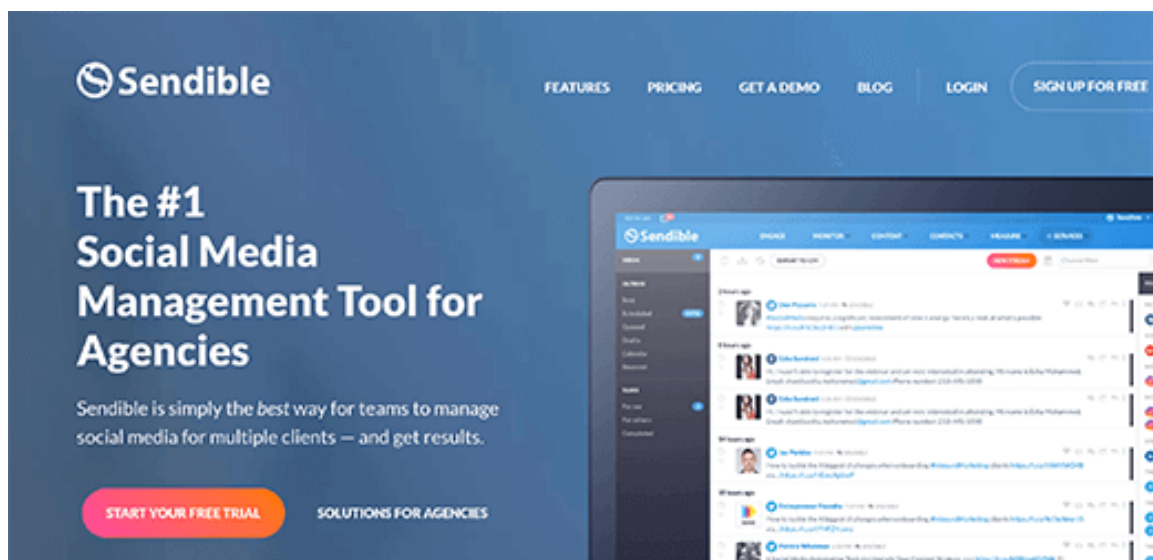
There are many marketing tools for improving advertisement campaigns-

- Twitter Amplify - Amplify permits publicists to share constant TV content (for instance, recordings of sports features) that they can coordinate with their brands. Twitter Amplify assists brands with arriving at clients past their present supporters by conveying content to focused crowds.
- Mobile App Promotion – This tool is for Mobile Development companies. This alternative allows sponsors to target and contacts their ideal crowds employing cell phones to drive application downloads.

## 7.5 *MARKETING YOUR BUSINESS IN TWITTER*

There are several marketing tools available for Twitter to grow your customer. Here we are discussing some of the frequently used tools-

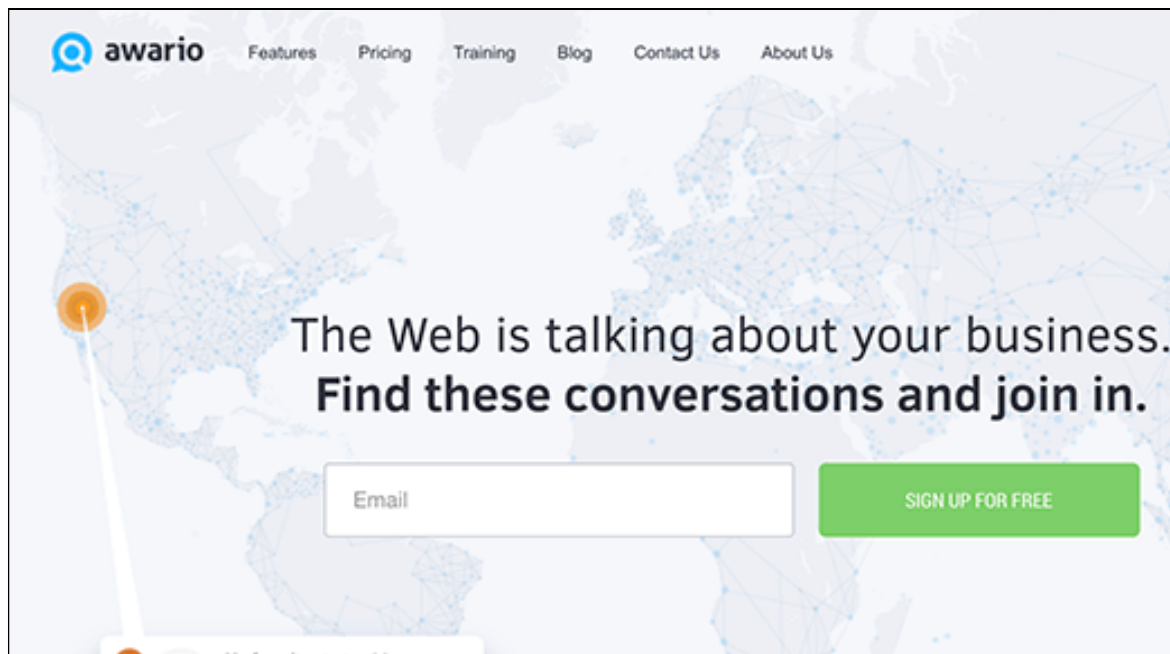
- **Sendible**



Sendible is a social media management tool that allows you to manage a Twitter account. With Twitter coordination, you can plan tweets, screen notices, and answer direct messages. You

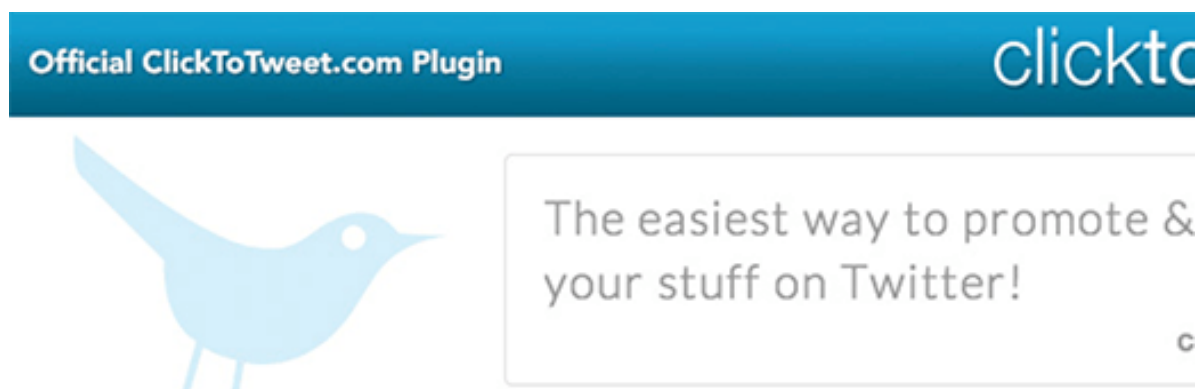
can even access-list/records. A dashboard is provided to you to manage all the things. From there you can also schedule tweets ahead of time. It also allows you to monitor your brand value on Twitter and integrate analytics to keep you up to date. There's a good feature that lets you peruse moving content in your business group. This offers you the chance to retweet, as, or react to the shareable content identified with your brand.

- **Awario**



This tool permits you to screen notices of your image via online media just as any well-known points encompassing your specialty. One of its most impressive highlights is its capacity to spot likely leads. It alerts you of any tweets that ask for recommendations of a product or service similar to your brand. Awario also has a feature that regularly checks your tweets. You can also reply, block, or delete tweets from Awario.

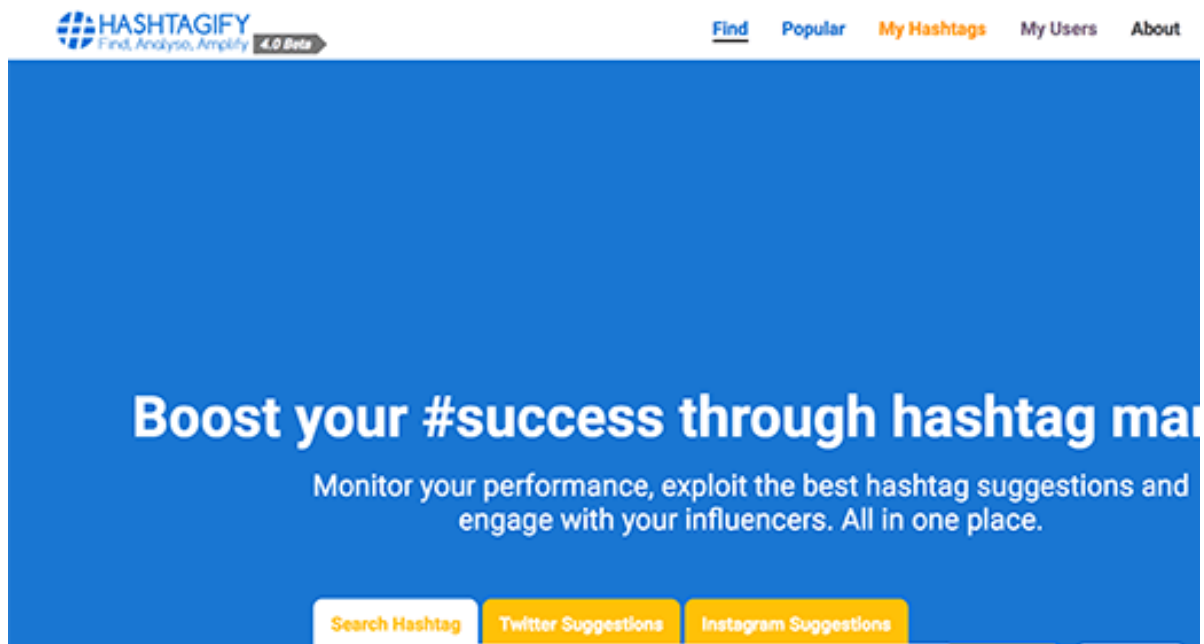
- **Click to Tweets**



This free tool allows you to create links that can be shared by your clients as tweets. You have to configure the content (like image/ description/ link) and then create it as a link and share it with your clients.

These tools also help you to check the number of people clicking your shareable links. You can also use this tool on the WordPress website.

- **Hastagify**



It gives you the facility to view stats on hashtags from Twitter. You have to enter the hashtag and it will generate its stats for you.

- **Tweriod**



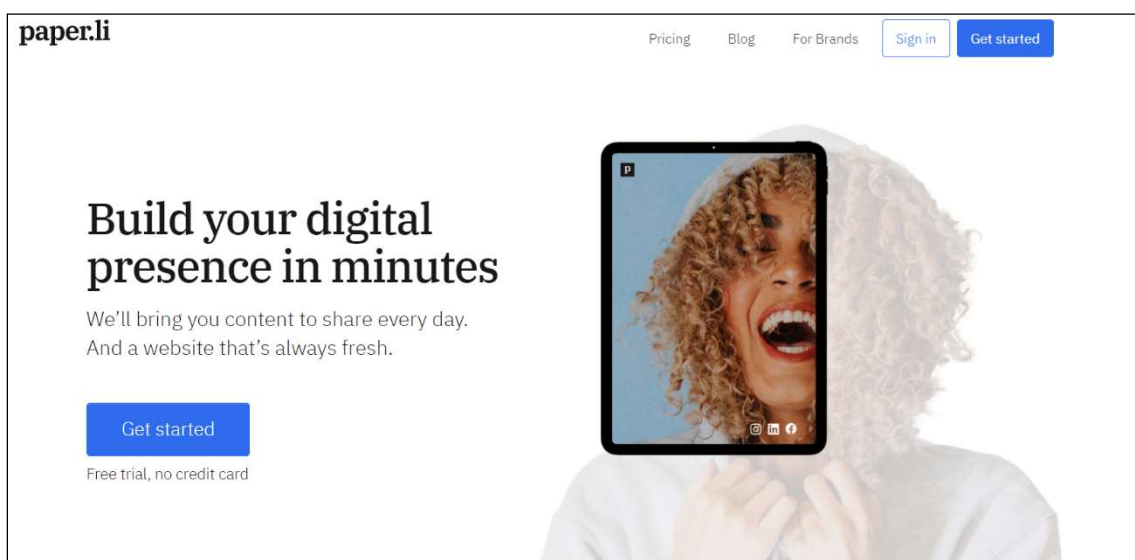
Tweriod provides you the best time to publish your tweets. It gives you the time in which your tweet got the maximum reach. For this, Tweriod analyzes your account as well as your follower's account. It will provide you the report of your stats in pdf format.

- **Triberr**



Triberr connects you to “tribes” that are social media groups having an interest like you. These tribes share your content with the peoples who may or may not have an interest in your product. You have to do this by promoting your content to tribes.

- **Paper.li**



This tool allows you to gather and assist content from other people. You can integrate the assisted content from social media and then send it to Twitter.

- **Social Snap**





Social Snap is a WordPress tool that includes a plugin. It will make your content more shareable. This tool has a social media share button that can be shared with the WordPress website or blog. It also controls the way how your tweets appear on Twitter. While it's incredible that they give such countless various approaches to you to utilize perhaps the most generally utilized web-based media stages, it can make it hard to choose which ones to utilize.

### Using Twitter for Successful Business Marketing

With 330 million active users, utilizing Twitter for promoting business would be an extremely enthusiastic choice. Twitter showcasing has ended up being an extraordinary device for advertising, particularly for private ventures hoping to target nearby clients.

Below are some tips to market your business on Twitter successfully-

- Improve your Twitter profile – After looking at the profile people will decide that they are interested in you or not. Hence take some time to optimize your Twitter profile professionally to attract more clients/traffic.
- Build/ Create a Twitter Community– Follow the person that is part of your business community so that they can also follow you. This will make a community around your business prospect. For building a community of your interest you can follow your clients, companions, partners, related organizations, contenders, applicable influencers, and the individuals who give you intriguing and helpful information.
- Always share content and images that are interesting to the users- Tweet blog links, pictures, recordings, and statements that your clients will appreciate. While making such a lot of content is time-consuming, content curation is an incredible method to keep your tweets going with the most ideal substance. Photos are an absolute necessity to stand out enough to be noticed, so add them in your tweets at whatever point conceivable. In any case, remember to streamline online media pictures for Twitter.

- Follow the conversation regularly and take part actively with other users- At the point when individuals 'favorite', 'answer' or 'follow' you, you must react to them. This way you can construct an extraordinary picture of your image across the stage and become your after considerably further. The more you connect with on Twitter, the more content you have out there and more individuals will have the option to effectively discover you. Clients like it when you associate with them – you are the human face behind your brand.
- Always Include the most appropriate Hashtags for your profile and tweets- Hashtags are an extraordinary path for individuals to discover you. For example, if a certain hashtag is moving on Twitter, you can incorporate the hashtag in your tweet and utilize its prominence for your potential benefit. Before you begin adding hashtags to your tweets, you should sort out the hashtags that reverberate with the subject and help you contact a bigger crowd.
- Schedule Tweets and Analyze Their Performance- On the off chance that you need to receive the rewards of Twitter promoting, it's basic that you tweet frequently. The more you tweet, the greater commitment you will see. In this way, you should tweet at any rate three times each day - toward the beginning of the day, in the early evening, and at night. Scheduling tweets saves you time and exertion as well as encourages you to expand commitment.

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## ***7.6 PROS & CONS OF USING TWITTER FOR BUSINESS***

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There are always advantages and disadvantages of the technology that you are using. Likewise, Twitter has its pros & cons.

### **Advantages of using Twitter for Business-**

- Twitter provides you the target market and clients (those who are interested in your product). With Twitter, you can reach out to almost every corner of the planet.
- Twitter connects your customer on a personal level. A personal Direct Message is a good option for direct customer connection.
- Customer feedback is valuable for the company. Twitter provides an easy way to get feedback from your customer.
- Tracking and managing customer data is very easy on Twitter.
- The tweet sharing process can be completely automated.
- Links are shortened automatically while sharing as tweets, so you can always structure the content effectively.
- Twitter enhances your e-business effectively. You can take orders, give offers, and promote your business on Twitter.

### **Disadvantages of using Twitter for Business-**

- Big results are not seen as a fortnight. You have to be patient in the starting phase as it takes time to set up and gain followers.

- Users have a large number of (100's or 1000's) accounts to follow, If you tweet selectively or in small number then there is a chance that it will be missout by your potential customer.
- You have to be social media addictive in a way to manage your e-business account on Twitter. You have to check your Twitter account regularly to check and reply to tweets and messages of your customers.
- Negative news travels quicker than positive ones so any slip-ups or controversies of your business will go at lightning speed on Twitter. You should rush to do harm control if this occurs.
- It is difficult to differentiate between trollers and followers. It is best to be become professional and ignore insult happens on social media. Always focus on the positive things and get away from negative ones quickly.

Hence, we can see that Twitter for Business has some positive advantages that make it a charming stage for brand building. It additionally has some particular hindrances which should be tackled to if the maximum capacity of what Twitter can do will be accomplished.

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## **7.7 POINTS TO REMEMBER**

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- Twitter is a social media platform where people connect and converse with each other through short messages called tweets.
- For using the market effectively, there should be a Twitter marketing strategy. A Twitter promoting methodology is much the same as some other online media system.
- For organizations, Twitter can be an amazingly ground-breaking relationship building, the relationship between the executives, and client assistance instrument.
- As of the final quarter of 2019, Twitter had 152 million every day dynamic clients around the world.
- Utilizing hashtags can help you contact a crowd of people inspired by a specific subject or in a specific area.
- For your profile bio, you have 160 characters to depict your business.
- A pinned tweet is the main tweet individuals see when they visit your profile.
- Promoted Accounts are intended to assist brands with getting discoverable and become their number of users.

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## **7.8 GLOSSARY**

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- Hashtags (#)- The # symbol was created purely by Twitter users and is used for keywords or topics in Tweets.
- @ - The @ sign is used to denote usernames in Tweets: "Hello @twitter!"
- Block - Blocking a Twitter account, will make it unable to follow you or add you to their Twitter lists, and you will not receive a notification if they mention you in a Tweet.



- DM - Direct Messages (or DMs) are private messages sent starting with one Twitter account then onto the next account(s). You can utilize Direct Messages for one-on-one private discussions, or between gatherings.
- Follow(s)- A follow is the consequence of somebody following your Twitter account. You can perceive the number of follows (or supporters) you have from your Twitter profile.
- Geolocation, Geotagging -Adding an area to your Tweet (geolocation or geotag) tells the individuals who see your Tweet where you were the point at which you posted that Tweet.
- Header photograph - Your picture that you transfer, which shows up at the top point of your profile.
- List - From your record, you can make a list of other Twitter accounts by theme or interest (e.g., a friend list, colleagues, famous people, competitors). list make a course of events of Tweets, which you can likewise stick to the top point of your Home timeline. We additionally make it simple to find new open Lists to follow!
- Retweet - Sharing of another account Tweet to the entirety of your devotees by clicking or tapping on the Retweet button.
- Trend - A Trend is a topic or hashtag decided algorithmically to be quite possibly the most well-known on Twitter at that point.

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## 7.9 CHECK YOUR PROGRESS

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### Descriptive Type Questions-

- a) How to get more followers on Twitter?
- b) Why one should create a Twitter account for his business? Explain in detail.
- c) List the major benefits of Advertising business on Twitter.
- d) What is a Hashtag on Twitter? Explain with an example.
- e) Differentiate between a Direct message and a Reply?
- f) What are the pros and cons of using Twitter for marketing?

### Objective Type Questions-

- a) You can use Direct Messaging for one-on-one private discussions. (True/False)
- b) As of the final quarter of 2019, Twitter had 152 million every day dynamic clients around the world. (True/False)
- c) Followers on Twitter are gained within one day after activating the account. (True/False)
- d) Social Snap is a WordPress tool that includes a plugin for making your content more shareable. (True/False)
- e) Amplify permits publicists to share constant TV content. (True/False)

- f) ..... are private messages sent starting with one Twitter account then onto the next account
- g) The ..... is used to denote usernames in Tweets.

**Answer (Objective Type Question)-**

- [a] True      [b] True                      [c] False      [d] True
- [e] True      [f] Direct Messages/ DM      [g] @ sign

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- [https://www.tutorialspoint.com/twitter\\_marketing/index.htm](https://www.tutorialspoint.com/twitter_marketing/index.htm)
- <https://developer.twitter.com/>
- <https://developer.twitter.com/en/use-cases/advertise>
- <https://help.twitter.com/en/rules-and-policies/twitter-api>

## **7.11 SUGGESTED READINGS**

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- Christopher Gain, “Twitter Marketing: Proven Business Strategy with a Simple Social Media to Earn Passive Income. Step by Step Guide to Reach Thousands of Followers”, ISBN: 1703294920.
- Pamela Russell, “Twitter Marketing: How to grow any Twitter account to 1 MILLION FOLLOWERS in the first 6 months”, ISBN: 1546628630.
- Joel Comm, Dave Taylor, and Guy Kawasaki, “Twitter Power 3.0: How to Dominate Your Market One Tweet at a Time”, ISBN: 1119021812.

## UNIT- 8

### LINKEDIN- TOOLS AND ACTIVITIES- II

8.1 INTRODUCTION

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8.2 OBJECTIVES

---

8.3 LINKEDIN AND BUSINESS: AN OVERVIEW

---

8.4 SETTING LINKEDIN FOR BUSINESS

---

8.5 MARKETING YOUR BUSINESS IN LINKEDIN

---

8.6 PROS & CONS OF USING LINKEDIN FOR BUSINESS

---

8.7 POINTS TO REMEMBER

---

8.8 GLOSSARY

---

8.9 CHECK YOUR PROGRESS

---

8.10 BIBLIOGRAPHY/ REFERENCES

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8.11 SUGGESTED READINGS

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#### **8.1 INTRODUCTION**

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LinkedIn is a social media platform explicitly intended for vocation and business experts to the interface. Starting in 2020, more than 722 million peoples use LinkedIn to develop their vocations and businesses. Unlike other platforms in which you may become "friends" with anybody and everybody, LinkedIn is tied in with building key connections. In LinkedIn, the quantity of associations is less significant than the kind of associations. Truth be told, LinkedIn quits demonstrating your genuine number of associations once you have 500 since it's about quality, not amount. LinkedIn's attention is on the client's professional character and empowering the client to control that on the web.

This media has a business centre where the clients are sharing data about their industry, their work insight, abilities, and everyday working exercises; and making new contacts or restoring existing ones. Even though it could be viewed as minded more towards serving the enrollment business, there are occasions to utilize the local area for lead age, finding new contacts, or in any event, for acquiring information from an industry master. The scope of your website can

be expanded by empowering clients to share articles that might be viewed as excessively limit for sharing on a more casual channel.

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## **8.2 OBJECTIVES**

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After the successful completion of this unit, you will be able to-

- Understand the role of LinkedIn in business.
- Know about advanced tools on LinkedIn.
- Best practices of using LinkedIn.

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## **8.3 LINKEDIN AND BUSINESS: AN OVERVIEW**

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Over 30 million organizations use LinkedIn for business. With more than 722 million individuals, an ever-increasing number of brands are utilizing LinkedIn promoting to association, interface, and sell. There are LinkedIn business tools accessible for each business size and type, from little to enormous and B2B to B2C. This unit will tell you the best way to utilize LinkedIn for business, outfit you with the best instruments, and assist you with taking advantage of your LinkedIn marketing techniques.

LinkedIn allows you to-

- Create Profile – In a personal profile, individuals can include their experience, work, and education.
- Have an online resume and business card where possible customers, clients, and joint endeavor accomplices can find out about and interface with you.
- Get online supports and suggestions for your expert capacities and character.
- Get associates with expected customers, clients, and partners.
- Create Groups – Groups can be created according to one’s interests. Groups can be open or closed as needed.
- Create Company Pages – This feature empowers you to make a LinkedIn page for your organization that representatives and those keen on your business can follow. On your organization page, you can give key data, share the most recent organization updates, connection to your RSS feeds, show your items and services (which can be suggested by LinkedIn clients) and offer professional openings within your organization.

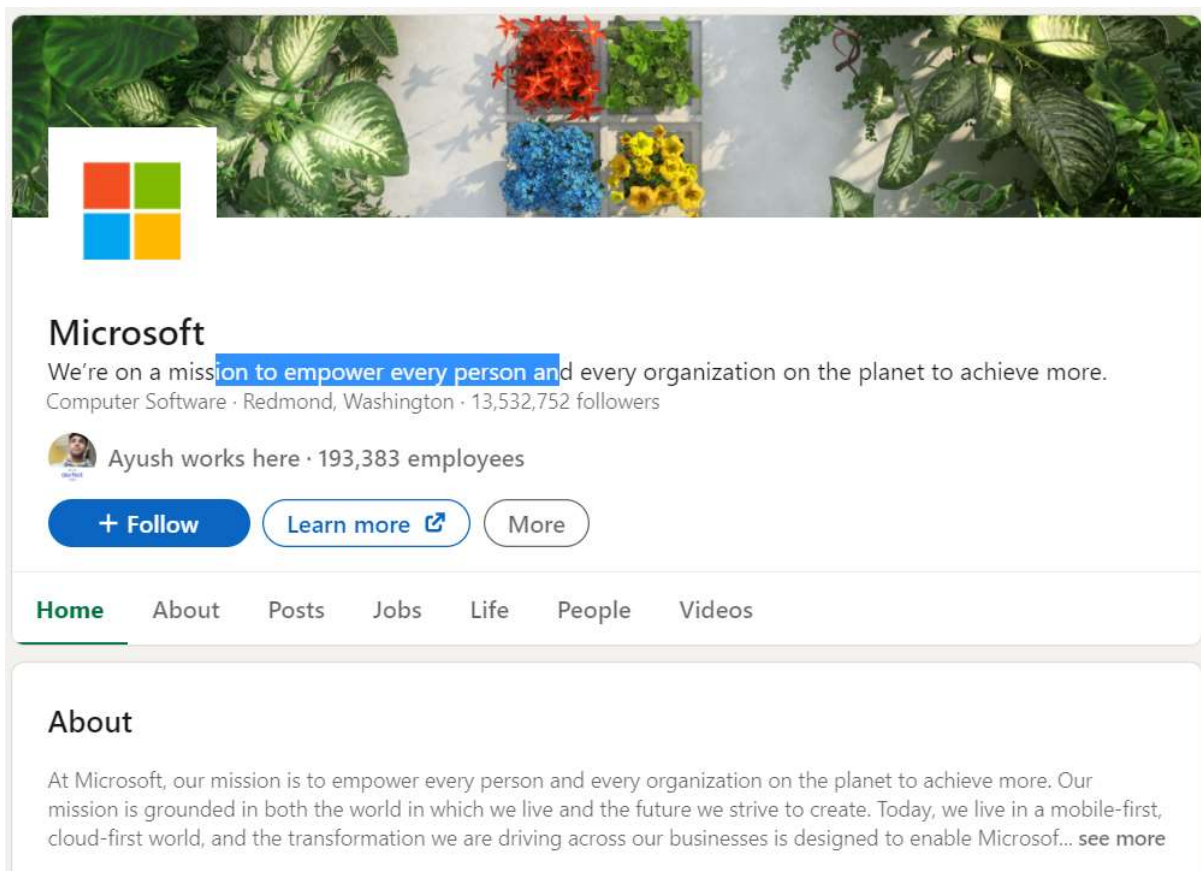
Organization updates are seen by followers on their landing page and they can either like, remark, or share the data. Your compass can be expanded by utilizing the LinkedIn share button on your site against significant substance, permitting people to share articles they find captivating with their expert organization.

At the point when an individual offers an article on LinkedIn, it shows up on their newsfeed and has a feature on LinkedIn Today where it tends to be seen by every one of the individuals who are following that particular story and it has the chance to be gotten and shared more. In

the following sections, we will check the details of how one can set the LinkedIn for business purposes.

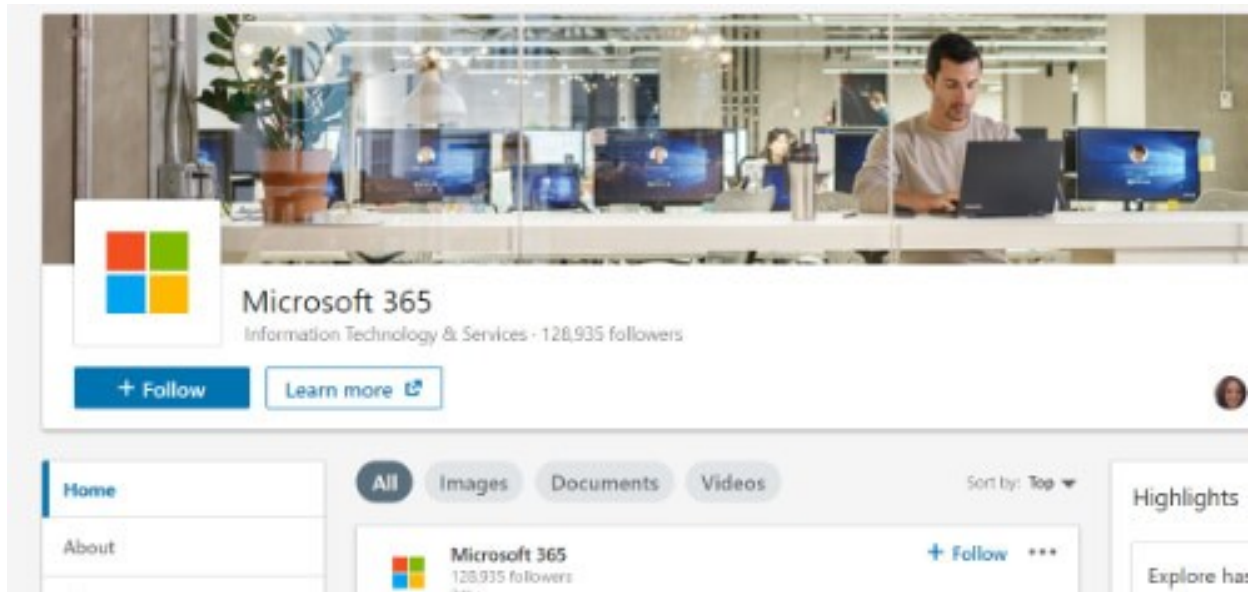
## 8.4 **SETTING LINKEDIN FOR BUSINESS**

We have already discussed how to set up your profile and business page on LinkedIn in the previous units. You can use your profile page for sharing your curriculum vitae or searching for new job openings. Companies can create a separate LinkedIn business page for marketing their product or post job openings, etc. For example, here is Microsoft's LinkedIn Business Page-



Merits of creating a business page on LinkedIn–

- **Promote Your Products/Services** – A business page on LinkedIn gives your organization another approach to advance your items or administrations. You can present your items/products, depict the advantages to your supporters, and offer links that direct to your website. A LinkedIn showcase page can also be created like a LinkedIn business page. This page is an expansion of your LinkedIn business page and can be utilized to highlight a specific brand, specialty unit, or activity. For example, below is the LinkedIn showcase page of the Microsoft Office 365 package.



- Easy way to find the right candidate for the job - With a LinkedIn business page, you can undoubtedly discover top ability for your organization. You can post a job and view LinkedIn profiles of expected possibility to locate the best counterpart for your business. Also, potential competitors can study your business and what it resembles to work for your organization by looking at your LinkedIn business page.
- Increase your business searchability - should have the option to discover your business on the web on the off chance that you need to be effective. A LinkedIn business page gives another approach to clients to find your organization on the web.
- Join with your Target Audience - Particularly for B2B organizations, a LinkedIn business page is the ideal method to interface with your intended interest group. You can interface with huge loads of entrepreneurs and experts on LinkedIn through posts, remarks, messages, supported posts, and LinkedIn InMail.

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## 8.5 *MARKETING YOUR BUSINESS IN LINKEDIN*

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There are several marketing tools available for LinkedIn to grow your customer. Here we are discussing some of the frequently used tools –

- **SocialPilot**



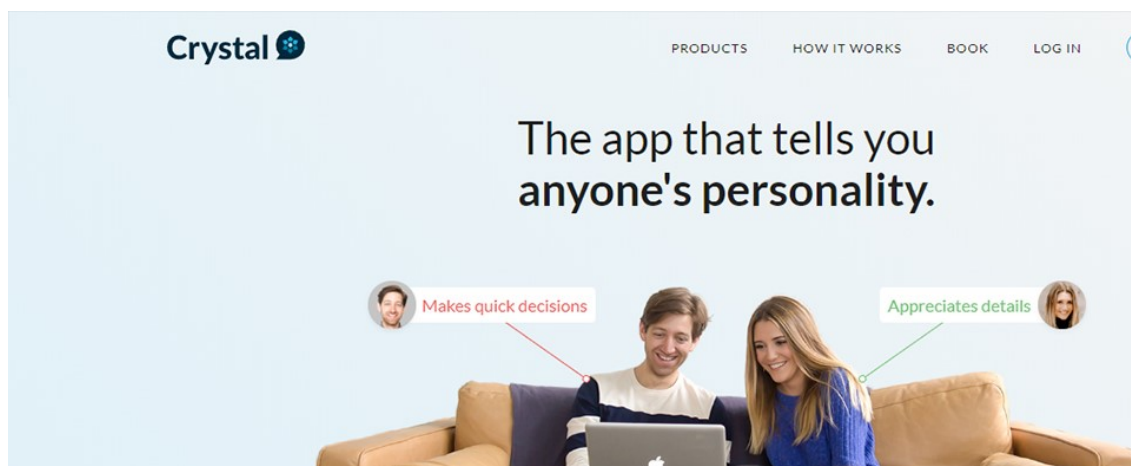
**SocialPilot** Features Solutions Resources Pricing Log In Request Demo

## This is Everything you Need to Hit Your Social Media Marketing Goals at an AMAZING Price!

Powerful Publishing. Insightful Analytics. Seamless Collaboration.  
#growlikecrazy

SocialPilot is one such LinkedIn advertising device that deals with all your LinkedIn showcasing prerequisites from mass planning posts, dealing with your online media group and its work, finding an applicable and astounding substance that drives commitment to set up your visual media campaigns.

- **Crystal**



**Crystal** PRODUCTS HOW IT WORKS BOOK LOG IN

## The app that tells you anyone's personality.

Makes quick decisions Appreciates details

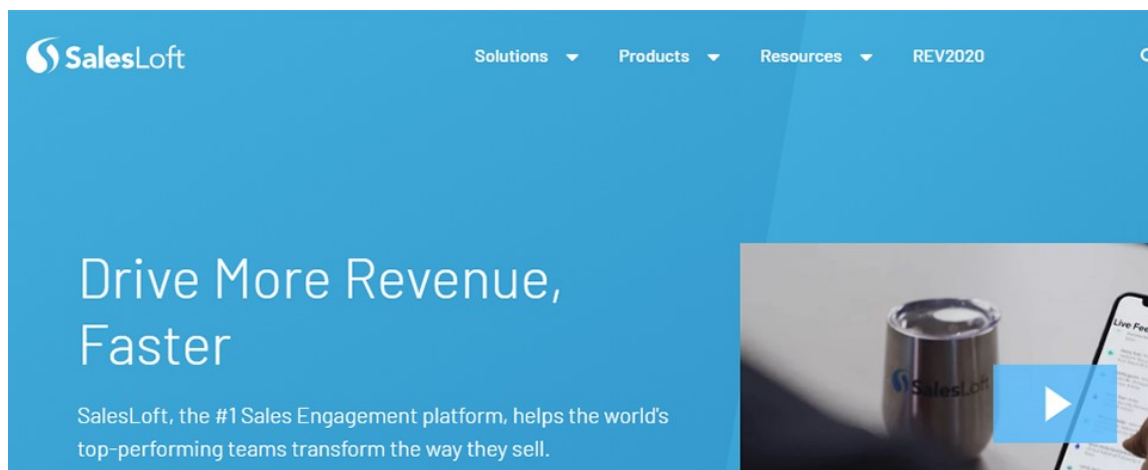
Crystal is known as the world's biggest character evaluation stage that encourages you to comprehend the character contrasts in yourself, your associates, and your clients. It encourages you to make correspondence, for example, messages such that it resounds with your possibilities. You can likewise utilize the tool to evaluate your proficient qualities.

- **LinkedIn Elevate**



LinkedIn Elevate capacities as both a work area application and a portable application, look through news sources to discover a relatable and enlightening substance that can be booked and shared on your LinkedIn profile. This LinkedIn showcasing instrument causes you to save time with the goal that you can zero in on different parts of your advertising system.

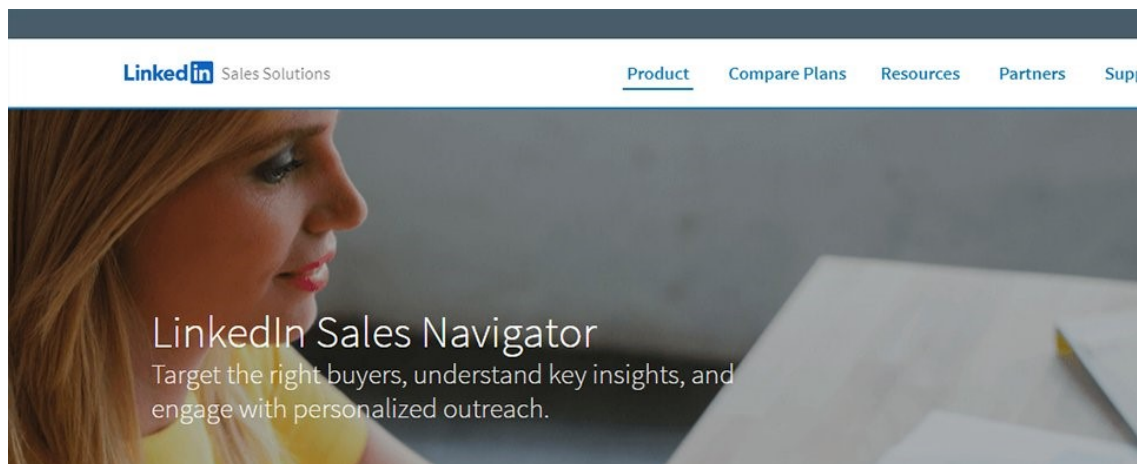
- **SalesLoft**



SalesLoft has lots of features that can be used by novice and experts. It incorporates various kinds of information across different channels, smooth out your work process, and comprehends your crowd for better focusing. This LinkedIn advertising gadget encourages you to customize your business methodology and gives information-driven outcomes to reveal to you where your business procedure ought to be going.

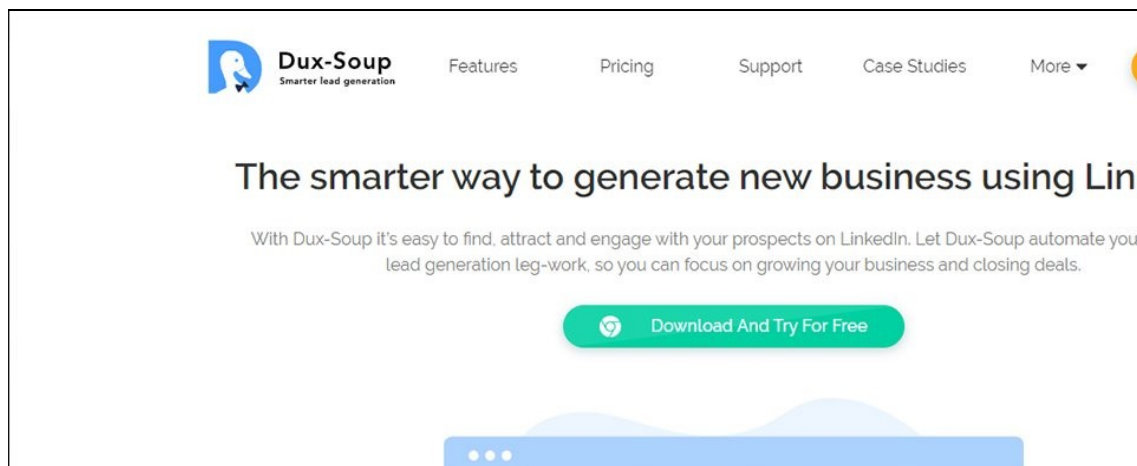
- **LinkedIn Sales Navigator**





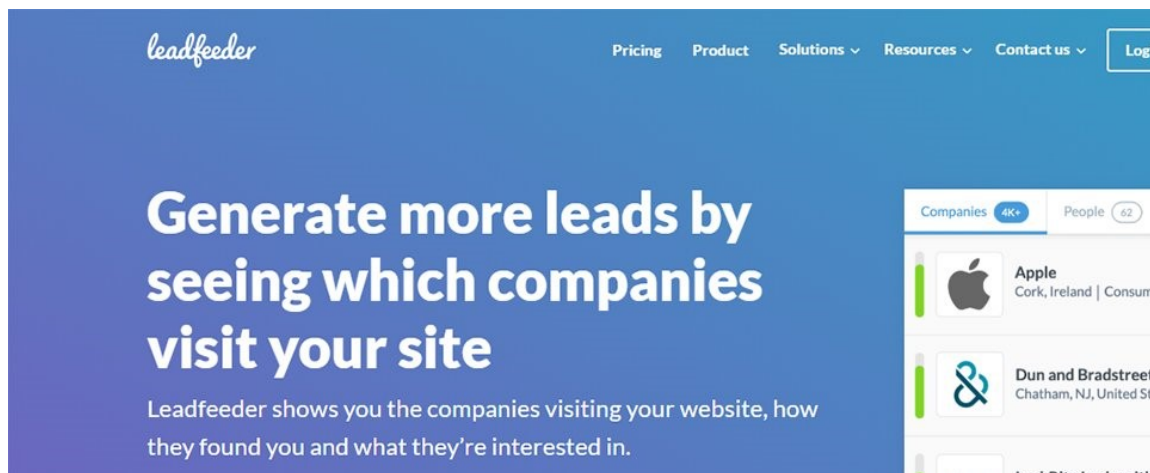
This tool finds important leads customized according to your business. It also gives you sales insights for making any decision.

- **Dux-Soup**



Dux-Soup is also used to get the prominent lead generation in LinkedIn. With the assistance of this tool, you can digitalize your prospecting work by having the portal see your possibility's profiles and follow their action just as send them customized messages and underwrite their abilities.

- **Leadfeeder**



Leadfeeder is site traffic following instrument that permits you to see which organizations or people visit your site and what they're keen on. You can interface it to your CRM, Analytics instruments, and email showcasing for improved information assembling and revealing. It can help in simple transformations as you focus on those leads that are searching for you.

In this time of web-based media and trend-setting innovation, utilizing the privilege of LinkedIn showcasing tools can give your business the correct push. Rather than wondering your group with an excessive number of tools, each serving restricted features, you need to pick an apparatus that handles all your online media prerequisites and ends up being a savvy arrangement.

## **8.6 PROS & CONS OF USING LINKEDIN FOR BUSINESS**

Today LinkedIn is one of the best social media platforms. There are always advantages and disadvantages of the technology that you are using. Likewise, LinkedIn has its pros & cons.

### **Advantages of using LinkedIn for Business –**

- SEO profile of a business will improve – Through LinkedIn businesses can create content that can be directly shared on the websites and other social media platforms like Facebook or Twitter.
- LinkedIn provides an easy way to get updated about the industry – Recent trends in the industry can easily be seen through LinkedIn messages.
- LinkedIn has a cost-effective marketing model- LinkedIn provides a free basic account for building professional identity. It is cost-effective and provides various free features.
- LinkedIn provides tools for searching information about businesses – B2B, B2C companies can be searched in LinkedIn without much effort. The business portfolio tells you all the information about the particular company.
- Fast way to establish personal trustworthiness – LinkedIn provides the way to offer testimonials regarding day-to-day activities. Any data can be shared for the betterment

of the company or personal profile. Relationship building can be achieved through it very easily.

- Enhances visibility across media platforms – If you want to get noticed on online media then LinkedIn is for you. Visibility enhances your percentage of getting recognized by recruiters.

#### **Disadvantages of using LinkedIn for Business –**

- Big results are not seen as a fortnight. You have to be patient in the starting phase as it takes time.
- Networking is somewhat restricted in LinkedIn as compared with other social media.
- LinkedIn for Business permits others to embrace individuals and the abilities which they have, however, somebody who is new to the site won't have any supports whatsoever. This implies there might be no ensures that the organization your shaping is going to be helpful.

The upsides and downsides of LinkedIn for Business show that it tends to be an exceptionally helpful turn of events and effort measure. Hence, we can see that LinkedIn for Business has some positive advantages that make it a charming stage for brand/profile building. It additionally has some particular hindrances which should be tackled to if the maximum capacity of what LinkedIn can do will be accomplished.

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### **8.7 POINTS TO REMEMBER**

- LinkedIn is a social media platform explicitly intended for vocation and business experts to the interface.
- With more than 722 million individuals, an ever-increasing number of brands are utilizing LinkedIn promoting to association, interface, and sell.
- Companies can create a separate LinkedIn business page for marketing their product or post job openings, etc.
- A business page on LinkedIn gives your organization another approach to advance your items or administrations
- Through LinkedIn businesses can create content that can be directly shared on the websites and other social media platforms like Facebook or Twitter.

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### **8.8 GLOSSARY**

- **Update** – Status updates and content that you post.
- **Profile** – Similar to a resume, you add information about you and your job history.
- **Company Page** – A place for businesses to include information about their business and create updates about their business and their industry.

- **Mention** – Just like Facebook and Twitter, you can mention others in your LinkedIn updates.
- **Connection** – An indicator that you and a person are connected to each other.
- **1st Level**– Someone you are connected with on LinkedIn. You have either sent them a connection request or they have sent one to you.
- **2nd Level**– Someone that is connected to one of your 1st level connections.
- **3rd Level**– Someone that is connected to one of your 2nd level connections.
- **Degrees** – This shows you how you are connected to a person even if it's through a number of people.
- **Invitation** – Invite someone to join your network and connect with you.
- **Introduction** – A way to introduce yourself to those you are not currently connected to.
- **Groups** – These can be public or private, and can be created by an individual or company. It allows users to come together and talk about a specific subject on one page.
- **Network** – Your connections which also includes the connections of your connections.
- **Recommendation** – A way to recommend a friend/colleague, based on their professional experience, to anyone who views their profile.
- **Influencers** – Key and influential people in your industry that can provide you with great content.
- **LinkedIn Today** – A source for all of your industry news in one place.

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## 8.9 CHECK YOUR PROGRESS

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### Descriptive Type Questions-

- a) How to get more connections on LinkedIn?
- b) Why one should create a LinkedIn account for his business? Explain in detail.
- c) List the major benefits of Advertising business on LinkedIn.
- d) What is a Group on LinkedIn? Explain with an example.
- e) Differentiate between a 1<sup>st</sup> level and 3<sup>rd</sup> level Connection?
- f) What are the pros and cons of using LinkedIn for marketing?

### Objective Type Questions-

- a) You can't get a company or other LinkedIn user to see your status updates. (True/False)
- b) In a personal profile, individuals can include their experience, work, and education. (True/False)
- c) There are only closed groups in LinkedIn. (True/False)
- d) ..... is an indicator that you and a person are connected to each other.
- e) A LinkedIn showcase page can also be created like a LinkedIn ..... page.

### Answer (Objective Type Question)-

[a] False      [b] True      [c] False      [f] Connection      [g] business

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## **8.10 BIBLIOGRAPHY/ REFERENCES**

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- 

## **8.11 SUGGESTED READINGS**

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- Leveraging LinkedIn To Find Quality Jobs During These Covid Times, Soda Yule Zero.
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## UNIT- 9

# SOCIAL MEDIA RISING STARS

9.1 INTRODUCTION

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9.2 OBJECTIVES

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9.3 WHY SOCIAL NETWORKING IMPORTANT?

---

9.4 PROS & CONS OF SOCIAL NETWORKING TOOLS

---

9.5 BRIEF OVERVIEW OF SOCIAL NETWORKING TOOLS

---

9.6 FUTURE OF SOCIAL NETWORKING

---

9.7 POINTS TO REMEMBER

---

9.8 GLOSSARY

---

9.9 CHECK YOUR PROGRESS

---

9.10 BIBLIOGRAPHY/ REFERENCES

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9.11 SUGGESTED READINGS

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### ***9.1 INTRODUCTION***

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Social networking refers to the gathering of a group of people and organizations together to a certain extent to share thoughts, interests, and activities. Social networking is a web-based way of communication, allowing users to chat, share information, and create content. There are many social media sites such as blogs, social networking sites, instant messaging, photo sharing sites, video sharing sites, and more. A large number of people around the world use social networking sites to share and make connections on a personal level. There are many web-based communication services available such as Facebook, Twitter, LinkedIn, Google+, Instagram, Pinterest, YouTube, WhatsApp, WeChat, etc. They provide easy-to-use interface and interaction with people across the globe.

In today's digitally empowered era we are surrounded by a variety of old and new media for information, entertainment, business promotion, and creating connection with peers. As we progressed, the medium of communication evolved from a variety of sources, such as mechanical process to electronic transmission. Technological advances are an important part of the narrative regarding media and communication, where the effects of media and its types are also important to discuss.

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## **9.2 OBJECTIVES**

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After the successful completion of this unit, you will be able to-

- Know about Social Networking.
- Know about Pros & Cons of Social Networking.
- Know an overview of various Social Networking Tools.

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## **9.3 WHY SOCIAL NETWORKING IMPORTANT?**

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Social networking keeps people in touch easily, and reconnects with people they may have known but have lost contact with. These sites also make it easy to connect with people who share your interests, even if you are not physically located next to each other. You can also use these sites to plan events quickly and easily in a very short time.

Social networking is becoming increasingly important in education, organization, marketing, business, and more. As more and more people in these networks, businesses find they provide a very powerful marketing team that can disseminate news about their products or word of mouth promotion, at no extra cost.

Some of other benefits of Social Networking are-

- It's free to use.
- Simple setup for starting.
- Speed up the broadcast of information.
- Improves organizational communication.
- Increase participation in organizational processes.
- It influences how people communicate in organizations.
- Supports open discussions between peoples & Groups.
- Social networking is becoming increasingly important in the field of Education.
- Teachers often take advantage of a student's social media skills to create class blogs, discussion forums, videos, and more.
- It Enables Customer Feedback.

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## **9.4 PROS & CONS OF SOCIAL NETWORKING TOOLS**

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With latest social networking tools for connecting and sharing information, such platforms are used for many different purposes. Most people still use social media for "social" purpose, while many use it for business purpose. Government, security agencies, researchers, etc. also use social media for legitimate purposes. Although users' usage and behavior on different social media sites may vary, there are general advantages and disadvantages of all social media sites or social media platforms.

## **Advantages (Pros) of Social Networking Tools**

- Social media carry and pass information faster than any other media.
- Law enforcement agencies use social media to arrest and prosecute criminals.
- Social networks help students do better in school.
- Social media allows people to improve their relationships and make new friends.
- Social media helps develop women's businesses.
- Networking helps employers find workers and job seekers find work.
- Being a part of social networking sites can increase one's health and reduce your risk of health problems.
- Social media facilitates face-to-face interaction.
- Social media is increasing voter participation.
- Social media facilitates political change.
- Social media is good for the economy.
- Social media sites empower people to make social change and do good in society at the community level.
- Social media helps senior citizens feel connected to the community.
- Social media helps people who are socially isolated or shy to communicate with other people.
- Social media allows for quick, easy dissemination of public health and safety information from popular sources.
- Social media can help break down social pornography.
- Crowdsourcing and refunds on social media allow people to collaborate to achieve a goal.
- Social media provides case studies to a broader audience, allowing more people access to educational resources previously unavailable.
- Organizations and small businesses use social media to benefit themselves and consumers.
- Social media provides teachers with a platform for interacting with other teachers and connecting with students outside the classroom.
- Social media provides a way for artists and musicians to build viewers even if they don't have a company contract.
- Colleges and universities use social media to recruit and retain students.
- Social media allows for instant communication during catastrophic events.

## **Disadvantages (Cons) of Social Networking Tools**

- Social networking exposes us to a lot of information.
- There are privacy issues to consider with social networks.
- Cyber-bullying and peer pressure are significant issues.



- Some people substitute online interactions for their offline relationships.
- Social networking can become a severe distraction for some people.
- It can disrupt your sleep cycle.
- Using social networking, all of the time, can lead to a sedentary lifestyle.
- Social networking can spread false or unreliable information quickly.
- Students who use social networking too often have lower grades.
- Social media creates more time-wasting opportunities throughout the day.
- Use of social networking is correlated with brain and personality disorders.
- It can be more difficult to find a job with your social media presence.

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## **9.5 BRIEF OVERVIEW OF SOCIAL NETWORKING TOOLS**

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Here we will discuss some of the world's most popular social networking sites. You can find out if your favourite social media platform is part of this list and even learn about some of the best social platforms you can start using today.

### **[1] Facebook**

This is one of the most popular social networking site in the world and one of the most used. Also, Facebook was probably the first to surpass the billionth mark of history.

In addition to the ability to network with friends and relatives, you can also access various Facebook resources to sell them online. You can sell or promote your business, brand, and products through paid Facebook ads.

Some of the leading industries on Facebook include financial services, e-commerce, sales, gaming, entertainment, media, telecom, technology, consumer goods, and automotive businesses. Consider joining (or creating) groups, using a Facebook Messenger Chabot, or using a live video to boost your marriage.

### **[2] Twitter**

This social network enables you to send short messages (called tweets), containing a limited number of characters (up to 280), to send your message to the world. With the growing online shopping experience, Twitter enables us to promote your businesses and shop directly with tweets. If your business is related to entertainment, sports, politics, or advertising, you can stand to gain a lot on Twitter.

On Twitter, brands have the opportunity to be creative and make their voice - there is an intellectual and personal space that is educational and helpful. Skip threads, assign value, share your content with others, and join my private conversation.

### **[3] LinkedIn**

LinkedIn is one of the most popular social networking sites or apps available in over 20 languages. It is used worldwide by all types of professionals and serves as an ideal platform for networking with various businesses, finding and hiring candidates, and more.

If you are looking for decision-makers who have the power to hire your company, your brand, or partner with you, LinkedIn is the place to be. Did you know that 44% of LinkedIn users have a national income? Or that more than 50% of Americans with a college degree use LinkedIn?

It may not be the most widely disseminated social network still, it has unlimited potential to connect with a team of qualified people who can make a difference.

#### **[4] Instagram**

Instagram was launched as a unique social media platform that was based entirely on sharing photos and videos. This social photo-sharing app allows you to capture the best moments of your life, with your phone camera or any other camera, and convert yourself to works of art.

This is possible because Instagram allows you to apply multiple filters to your photos, and you can easily post them to other popular social media sites, such as Facebook and Twitter. It is now a part of Facebook.

#### **[5] WhatsApp**

Although acquired by Facebook in 2014, this instant messaging platform exists as a private enterprise. It came to a very long place before Facebook. Still, it managed to capture the imagination of millions of people worldwide by empowering them to communicate and instantly share with people and groups.

#### **[6] Snapchat**

This is a messaging forum that lets you chat with friends through photos. It enables you to browse news and check out live news from around the world. If your target value is small, you definitely want to get into Snapchat.

The most active users of Snapchat are 13 years old, and spend 30 minutes a day on the app. Snapchat is a platform for user-generated content, behind-the-scenes videos, special offers, and influencer engagement.

#### **[7] Pinterest**

This is a photo-sharing and bookmark view of a social site or application that lets you get new ideas for your projects and save them. You can do DIY tasks or home improvement projects, plan your travel agenda, and more by using Pinterest.

Pinterest's most popular content includes fashion, food, decoration, wedding, use, and DIY related pins.

## **[8] Reddit**

This social media platform enables you to submit content and vote on content later. Voting determines whether the content moves up or down, ultimately edited based on areas of interest (known as redistribution).

Reddit introduces itself as "the front page of the internet." According to Alexa rankings, Reddit is one of the top 20 most visited sites. Reddit has a unique combination of content and community, with over 150,000 communities dedicated to every topic imaginable.

## **[9] Skype**

Skype is owned by Microsoft and is one of the most widely used social media platforms. It allows you to connect with people by voice calls, video calls (using the webcam), and text messages. You can also continue the conference call. The best part is that Skype-to-Skype calls are free and can be used to communicate with anyone, available in any part of the world, on Internet.

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## **9.6 FUTURE OF SOCIAL NETWORKING**

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Social media is continuously evolving, and it's exciting to think about what it will be like in a few years. The social media monitoring world will have to keep up with social media users' demands as brands continue to revise their strategies after new trends emerge. So, what does the future of social media look like from a consumer, brand, and social media monitoring perspective? Let's take a look at a number of trends we can see soon next year.

### **[1] More Privacy and Security-**

In the current social media, it is more important than ever, for brands to find and implement practices that build consumer confidence. It begins with how they connect with the audience. Privacy concerns are growing as social media users gain more insight into how they use their data. Thus, the future of social media sees the rise of so-called "dark social" users. This includes any online social interaction that takes place privately, for example, messaging apps, email, and other outlets for private sharing. 84% of users outbound sharing from websites now occurs through private and dark social channels, and we expect this to increase over the next few years.

### **[2] More Video-**

It's no secret that video usage through social media is on the rise. It is estimated that people watch five times more videos than static content such as text and images on both Facebook and Instagram. For this reason, we expect to see more videos on social media in the future, including live videos, which have gained great popularity in recent years.

### **[3] Less personal content, but more memes-**

Facebook said it posted a 21% decrease in original and personal updates, as users now communicate only on shared articles and memes. Social media users, in general, tend to share less personal information on major networks and prefer to display external content, such as exciting video or funny memes to their friends.

#### **[4] Premium Services and Fewer Ads-**

Ads have long been a plague of social media, and social media users are starting to get frustrated. However, many are willing to sacrifice unintended experiences for free, ad-saturated ones as social media users prefer high-quality images, videos, and audio, premium services are on the rise. They have become accustomed to in recent years, but only time will tell if they are willing to spend the money for it.

#### **[5] Mobile-centric experiences-**

The future of social media is mobile. It is estimated that 3 billion people will have access to mobile phones by 2020. Additionally, more and more people are using their smartphones as their primary source of access to social platforms. Therefore, future platforms will be designed with a focus on smartphones from scratch.

#### **[6] Less Typing-**

According to research, at least 50% of online searches will be done by image and voice by 2020. With the growing popularity of voice and image search and audio snippet messaging, social media typing activity is becoming increasingly obsolete in the future.

#### **[7] More Visuals-**

With the rise of social media platforms such as Instagram and Snapchat, we have seen a considerable increase in visual-based content. With camera access now easier than it was a few years ago, with virtually every phone having a built-in camera, photos and videos continue to saturate social media

#### **[8] A.R. and V.R. The effect has just begun-**

Over the next two years, the marketing world will introduce more and more practical applications of Virtual Reality (V.R.) and Augmented Reality (A.R.). The same applies to social media platforms. Technology is one of the fastest-growing industries today, and A.R. and V.R. not an exception.

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### **9.7 POINTS TO REMEMBER**

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- Social networking keeps people in touch easily, and reconnects with people they may have known but have lost contact with.

- There are several web-based communication services, such as Facebook, Twitter, LinkedIn, Google+, etc. They provide easy-to-use interface and interaction with people from overseas.
- Social networking is becoming increasingly crucial in Education, organization, marketing, business, and more.
- Although the usage and behaviour of users on different social media sites may vary, there are general advantages and disadvantages of all social media sites or social media platforms.
- 84% of users outbound sharing from websites now occurs through private and dark social channels, and we expect this increase over the next few years.
- The future of social media is mobile. It is estimated that 3 billion people will have access to mobile phones by 2020.
- According to research, at least 50% of online searches will be done by image and voice by 2020.

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## 9.8 GLOSSARY

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- Bitmoji– a mobile application that allows you to create your own personalized cartoon avatar, which can be used on various social networks or messaging services such as Snapchat.
- Boosted posts – without paid advertising, only 0.02% of jobs are seen. This means that Facebook content from brands is often 'boosted' to increase its visibility.
- Chat– live/real-time text-based communication between two or more people using a service available on the Internet.
- Connections– are people you connect with on LinkedIn. Connections are similar to Facebook friends but are more likely to be made with people you have worked with, or would like to do business with, rather than friends or family members.
- Dark posts– were once an invisible advertising tactic that brands used to target a specific set of people. Facebook announced that it plans to disclose what groups and companies paid for ads on its platform, with ads running on Facebook being readily viewable by everyone.
- D.M. (direct message)– a private message between social media users.
- Facebook Live– Live lets people, public figures, and pages share live video with their followers and friends on Facebook.
- Flickr– an image and video hosting website and web services suite. Calls itself the "best online photo management and sharing application in the world."
- Geotag– a tag that indicates the geographical location of a photo/video published on a social network.

- Handle– on Twitter, a handle is a name you choose to represent yourself. It starts with "@"
- Hashtag– a single word or phrase preceded by the # symbol to define messages relating to a particular topic.
- Live Stories– are a curated stream of user-submitted Snaps (via Snapchat) from various locations and events.
- Banner Ad– a popular type of digital image ad that can be placed across various websites.
- Blog– short for "weblog", a blog is a web page or a website that is regularly updated with new written content. Blogs are an important section of a website in digital marketing. They offer fresh new content on a regular basis, which can help attract new visitors, engage existing visitors, and give authority signals to Google.
- Bot– an automated program that visits websites, sometimes also referred to as a "crawler" or a "spider." Search Engines like Google uses bots to crawl websites so that they can be ranked and added to search indexes.
- Campaign– a series of advertising messages that share a theme, and market a product or service.

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## 9.9 CHECK YOUR PROGRESS

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### Descriptive type questions-

- a) What is Social Networking?
- b) Name and Explain any two tools of Social Networking.
- c) Why is LinkedIn used? Explain in your own words.
- d) Why privacy is an issue in Social Networking? Explain.
- e) What are memes? Give an example to support your answer.
- f) How is Facebook important to our business?
- g) What is meant by Chat-Bot?
- h) How can we make a Social Media optimized website?
- i) How to become good Social Media Marketing?
- j) What are the pros & cons of Social Networking?

### Objective type Questions-

- a) Which of the following is a video site?  
[A] Facebook [B] Daily Motion  
[C] EventBrite [D] None of These
- b) Who founded Facebook?  
[A] Mark Zukerberg [B] Bill Gates  
[C] Steven Chen [D] Matt Mullenweg
- c) Where is the headquarter of WhatsApp Located?



## UNIT- 10

### VIDEO CHANNEL MANAGEMENT (YOUTUBE)- TOOLS AND ACTIVITIES- I

|       |                              |
|-------|------------------------------|
| 10.1  | INTRODUCTION                 |
| 10.2  | OBJECTIVES                   |
| 10.3  | YOUTUBE CHANNEL: AN OVERVIEW |
| 10.4  | BENEFITS OF YOUTUBE CHANNEL  |
| 10.5  | TYPES OF YOUTUBE CHANNEL     |
| 10.6  | YOUTUBE MARKETING: OVERVIEW  |
| 10.7  | CHANNEL MANAGEMENT           |
| 10.8  | POINTS TO REMEMBER           |
| 10.9  | GLOSSARY                     |
| 10.10 | CHECK YOUR PROGRESS          |
| 10.11 | BIBLIOGRAPHY/ REFERENCES     |
| 10.12 | SUGGESTED READINGS           |

#### ***10.1 INTRODUCTION***

YouTube is a video-sharing platform which was started on February 14, 2005, by Steve Chen, Chad Hurley, and Jawed Karim, former employees of the PayPal. Its Headquarter in San Bruno, California. The first YouTube video ME AT THE ZOO was uploaded, and Google announced it was paying \$1.65billion for the service. YouTube is a platform where user can watch, share, upload, like and comment the videos. It was officially launched in December 2005.

Now YouTube is most popular site and application, with user watching around 6 billion hours of video every month. Features of YouTube are following:

- User can upload videos, comments and make a playlist.
- User can create a personal YouTube channel
- Like, comment and share other videos.
- User can subscribe another channel.



- YouTube is used around in 81 countries and available in 76 languages.

## The Massive YouTube Ecosystem



YouTube is so popular because you can find number of videos and all the content is user-generated. On an average, 100 hours of videos are uploaded to YouTube every minute, so there's always something new to watch! And YouTube isn't a one-way street you can jump in, record and share your own videos, and become a part of the community.

And other video sites have decent levels of traffic, most businesses could start today on YouTube and do fine because it's far from saturated. Many businesses are actually investing in YouTube marketing.

Now a days person knows how to do the smart business. If you've been considering marketing on YouTube, or you've just started and haven't really found your feet, this course is especially for you. You want to build a successful YouTube channel? Then organize all your ideas at one place. This course will tell you all the key components of creating a YouTube channel, how to get views, and those views will lead to subscribers and sales for your business.

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### 10.2 OBJECTIVES

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After the successful completion of this unit, you will be able to-

- Explore the types of YouTube channels one can create.
- Define the benefits of having a YouTube channel for business purposes.
- Understand YouTube channel management.

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### 10.3 YOUTUBE CHANNEL: AN OVERVIEW

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Channels are one of the coolest parts of YouTube, that provides quick access to all videos. YouTube channel is a spotlight for uploading video, comment, or to make playlist. However, without YouTube channel you have no public presence. YouTube channel is like a homepage, where user can organize the videos or arrange the playlist. User can customize their channel with logos, graphics, pictures and text description.

With help of Google Account, you can watch the videos and subscribe the channels. However, without a YouTube channel, you have no public presence on YouTube. Even if you have a Google Account, for upload videos, comment, or make playlists you need to create YouTube channel. You can create your channel on either the YouTube mobile site or YouTube website.

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## ***10.4 BENEFITS OF YOUTUBE CHANNEL***

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As we know social media post are not enough for growing a business, we need new strategy for increasing a traffic towards our website. YouTube introduce new strategy for promoting business through attractive videos at low cost or free. Benefits of YouTube Channel are:

- If you post a video on your channel, it automatically finds on Google.
- As YouTube is the second largest search engine, through which audience can easily reach you, by creating attractive videos or advertising their business on other people channel.
- It helps to enhance the talent of the any artist.
- The content never dies, you can re-purpose content you have already created. Using YouTube for business can help you to re-purpose content you've already created without wasting lot of time or invest on expensive equipment's.
- Through YouTube advertisement, you can reach a worldwide user.
- Videos are better to attract user.
- YouTube is an easy platform where user can upload videos and manage their account.
- You can associate your domain name with YouTube channel.
- YouTube viewer sees your video ad in another video and clicks on it.

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## ***10.5 TYPES OF YOUTUBE CHANNELS***

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YouTube platform provides users to create different types of channels. Anyone can create a video about any topic. Though it can be classified in following categories:

- **ANIMATION:** YouTubers can create entire animated stories using self-made digital images and dialogues. The youtubers publish short videos that each depicts a story. These videos include poems and comic stories for kids.
- **BEAUTY:** Beauty YouTubers are known for their expertise on the subjects of makeup and skincare routine. As trendsetters within the beauty industry, they often set a precedent for what brands and products will be most popular. Mostly beauty youtubers are self-

taught and viewers value their skills and candid opinions about the latest beauty products.

- **COMEDY:** Comedy YouTubers are known for poking fun at everyday human problems, create original characters, skit and publish their content with the intention of making people laugh. They separate the content according to the topic and top comedy YouTubers are self-deprecating and have excellent observational skills.
- **COOKING:** Many YouTubers specialize in one specific cuisine or type of food. They teach viewers how to prepare meals through guided tutorials. Other creators focus on easy to prepare meals, extravagant meals and healthy meals. They are an excellent source of new recipes.
- **DAILY VLOGGERS:** Daily vloggers are some of the most consistent creators on YouTube, publishing a video every day. They mainly use two camera angles to capture their daily life where one camera faces the outward and the other is selfie style. It includes two abilities to create a vlog that's the ability to create a compelling storyline out of seemingly ordinary events and the ability to provide engaging, improvised commentary as they film. The best daily vloggers feel like close friends.
- **DESIGN AND ART:** Design/art YouTubers are those that create videos showcasing their art expertise and help others to improve their artistic skills. Creators within the group explore many different mediums, including traditional drawing, digital drawing, graphic design, and painting.
- **DIY:** DIY (Do It Yourself) YouTubers teach viewers how to make customized items instead of buying them ready-made. A DIY video might teach audiences how to embellish their jeans, decorate their phone case.
- **FASHION:** These YouTubers fit in the fashion category specialize in clothing and accessories. Fashion YouTubers create content in line with their personal style, such as classic, eclectic, or modern.
- **GAMING:** Gaming YouTubers are those that create content focused on video games. They help viewers improve their skills and provide entertainment to a gaming-focused audience. The video format most commonly produced by gaming YouTubers is the let's play video. This is when a YouTuber records their screen while playing a video game and provides additional commentary.
- **HEALTH AND FITNESS:** These YouTubers detail their workout routines and diets for audiences in an effort to inspire others to lead a healthier lifestyle. Some post full-length workout videos that viewers can take with them to the gym or complete in the comfort in their own home. Others post short clips that guide viewers through quick workouts or new exercises.

- **MUSIC AND DANCE:** YouTube musicians, dancers, singers/songwriters, Choreographers comes under this category. Those who specialize in music usually publish either covers of popular songs, original compositions, or a combination of both. Creatives in dance often share choreographed routines and dance tutorials. YouTube has launched the careers of many stars and has become a destination for discovering new talent.
- **PRANKS/CHALLENGES:** YouTube creators that specialize in pranks and/or challenges shock and humor audiences. Prank YouTubers do so by tricking friends and bystanders. Challenge YouTubers attempt daring feats, like eating unusual foods. Prank/challenge videos are often the most watched and shared videos on YouTube. This kind of YouTuber publishes content that appeals to people of all ages and backgrounds.
- **PRODUCT REVIEW:** There is a clear trend, nowadays, for people to turn to the internet when they are considering making a purchase. They want to discover what other people think about products that interest them. These YouTubers specialize in the ratings, review, quality and everything about the product.
- **SPORTS:** YouTube hosts a collection of professional sports highlights, hilarious sports blunders, and even motivational sports videos. Creators within the sports category celebrate the topic of athletics, and either post videos focused on a specific sport or many.
- If a sports YouTuber focuses on a single sport, content might include product reviews and skill tutorials. Other channels incorporate multiple sports by guest starring professional athletes and performing trick shots and challenges.
- **TECH:** Technology YouTubers build their following on the basis of one subject: technology. Tech YouTubers also have a strong eye for detail. Their knowledge of technology allows them to compare new technology to previous models and make critical judgments on the value of upgrades.
- **TRAVEL:** As YouTube has grown the platform has become a hub for first-hand travel and adventure knowledge. Previously, individuals relied primarily on websites and books to plan vacations.travel YouTubers divide their content according to location or attraction. Depending on the creator they might present their travel experiences through highlight videos or through detailed vlogs.

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## **10.6 YOUTUBE MARKETING**

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YouTube Marketing is the practice of promoting businesses and products on YouTube's platform, by uploading valuable videos on a company's YouTube channel or using YouTube advertisements. For online and offline Business owners and internet marketers, YouTube Marketing is an essential strategy to take advantage of the web's massive shift toward video.



The most effective tools of business lead generation are video marketing. YouTube marketing is a tool for brands. That's why we've created this complete guide for YouTube pros. Video has proven itself as one of the best-performing forms of content, and just because you're creating them for YouTube doesn't mean that you can't repurpose your videos. By video marketing you have a better chance to promote your business sales. Marketing on YouTube means marketing on other social platform.

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## ***10.7 CHANNEL MANAGEMENT***

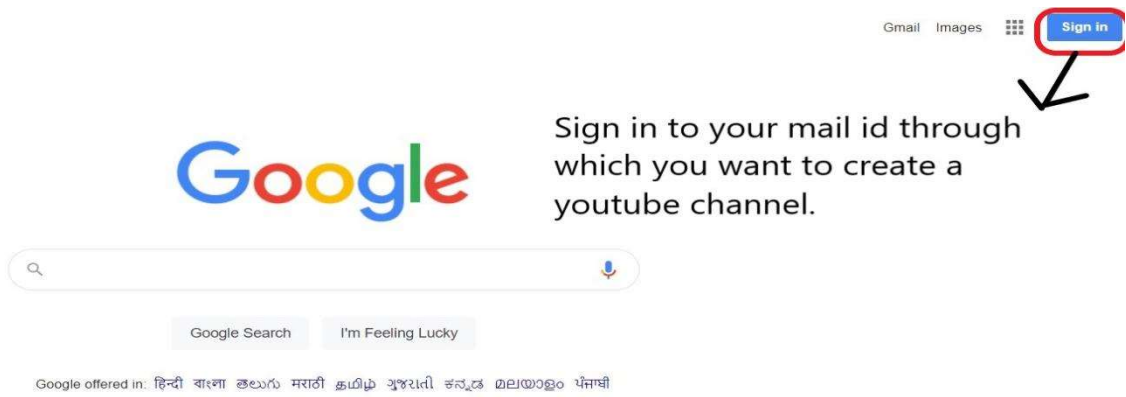
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YouTube is an easy and robust way to increase the business reach to millions of users across the globe. So, the YouTube channel must be properly managed to engage its subscribers and provide the best content to its users.

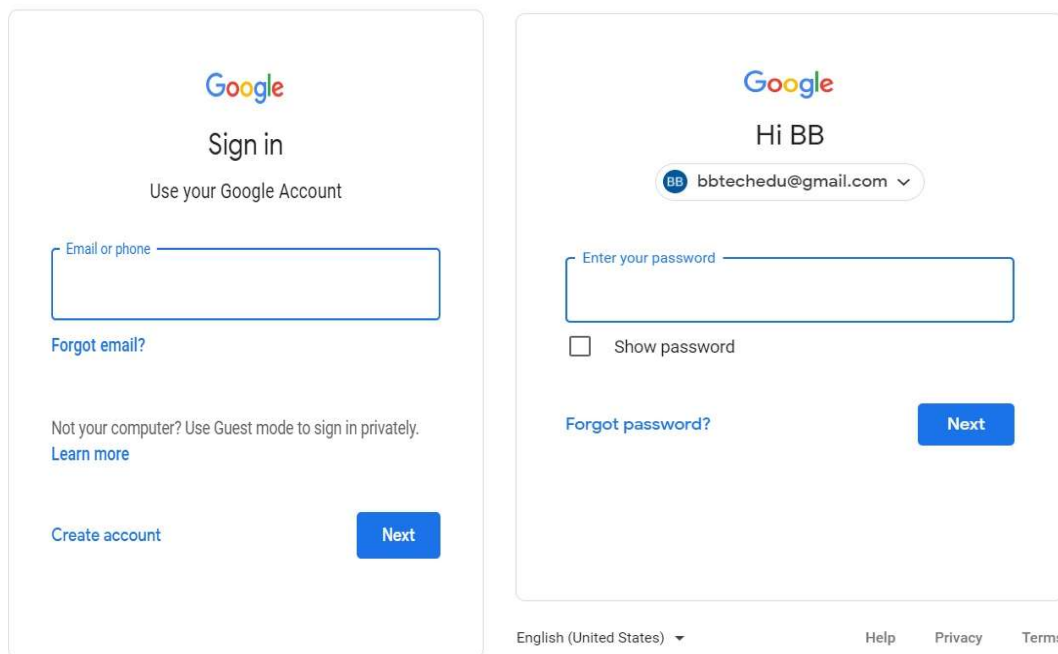
### ***Creating A Channel***

To create a channel on YouTube, you must have an account on google. Here are the steps to create a YouTube Channel:

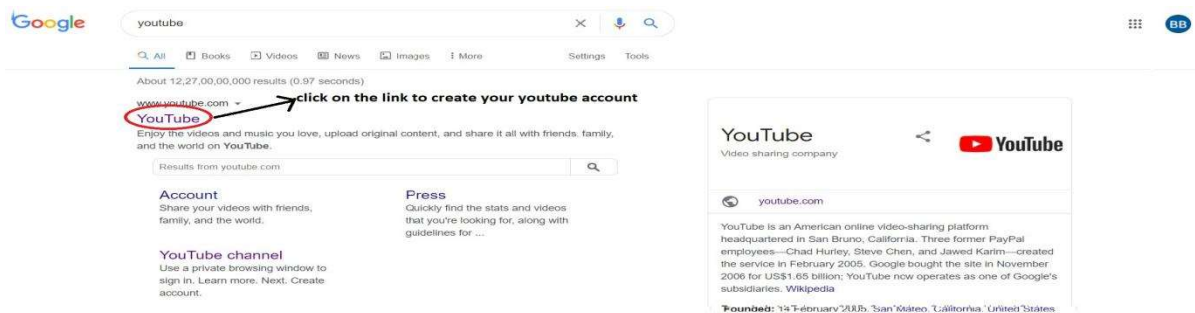
- Sign in to your Google account



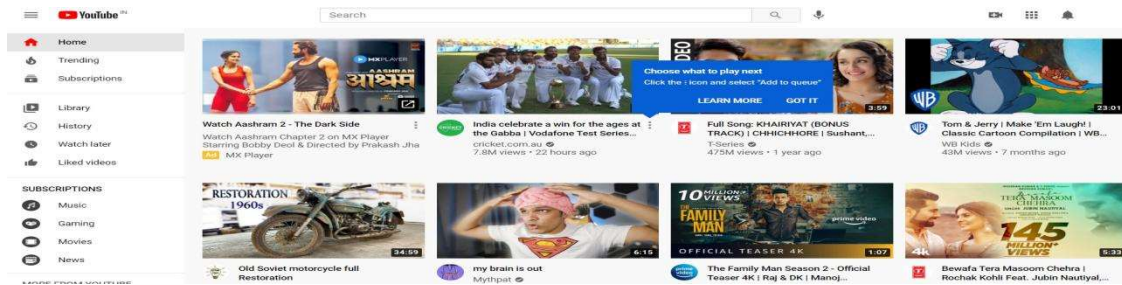
- After clicking on sign-in button, this page will open. Here you must add your email address and password



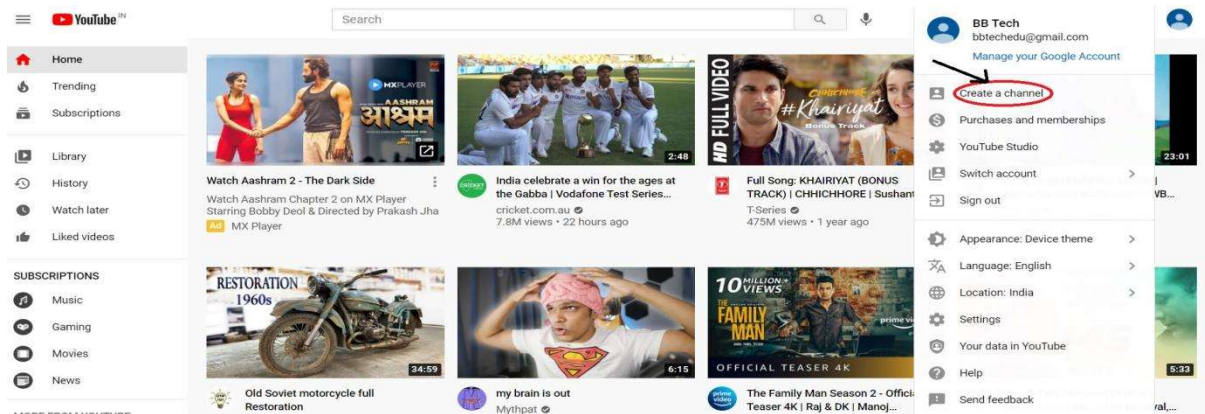
- After sign-in, click on the YouTube link through google chrome.



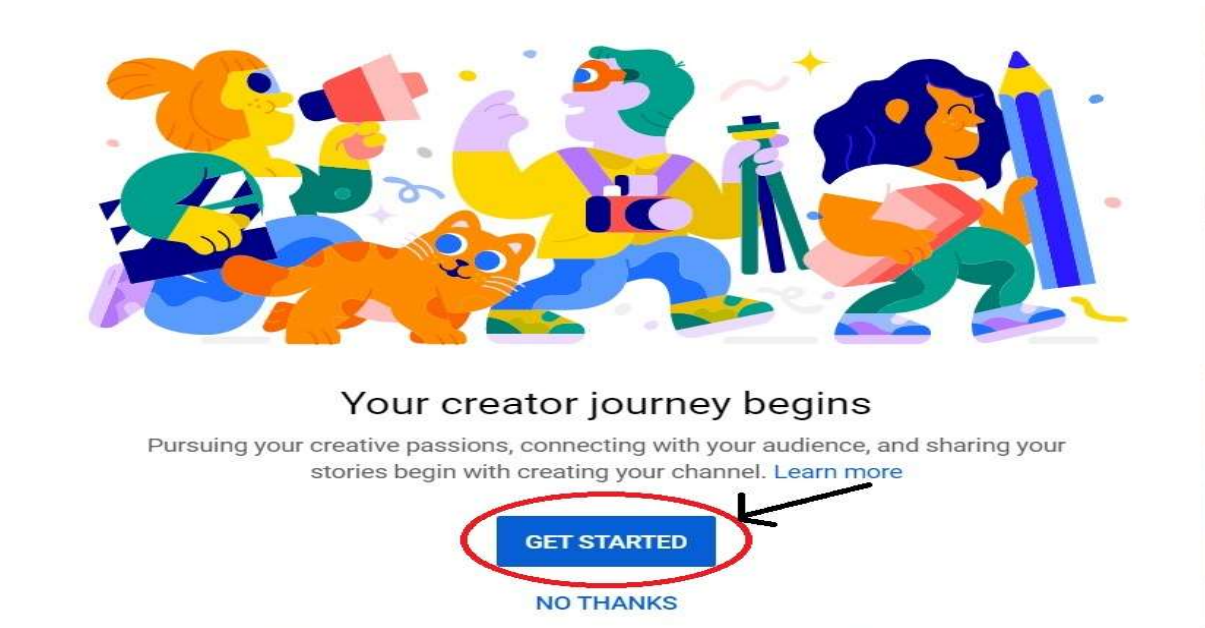




- Select the “Create a channel” option.




- After clicking on Create a channel button, this page will be displayed.



- After clicking on “Get Started” button, you’ll get two options for your channel name. From where you can any option

## Choose how to create your channel

**Use your name**  
Create a channel using the name and picture on your Google account.




**BB Tech**

By selecting this option, you agree to YouTube's Terms of Service.

**SELECT**

**Use a custom name**  
Create a channel using a brand or other name and picture.



**SELECT**

As a reminder, we may share non-personally identifiable information related to your channel and/or videos with our partners, including advertisers and rights holders.


CANCEL

- After choosing the option of “Use your name”, this page will be displayed.

YouTube
BB


**Nice work!**  
Your channel "BB Tech" has been created.

Next, follow the steps to complete your channel. You can do these steps now or come back to them later.



**Upload a profile picture**

Your profile picture appears next to your videos, comments, and other places. It's your signature image on YouTube. [Learn more](#)

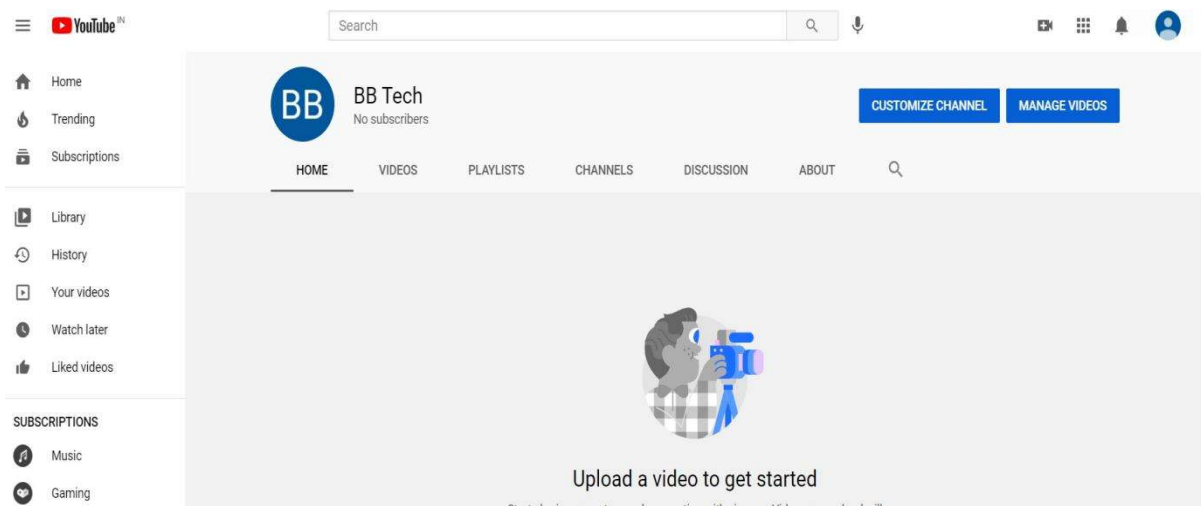


- And that's it. Your channel has been created as “BB Tech”.

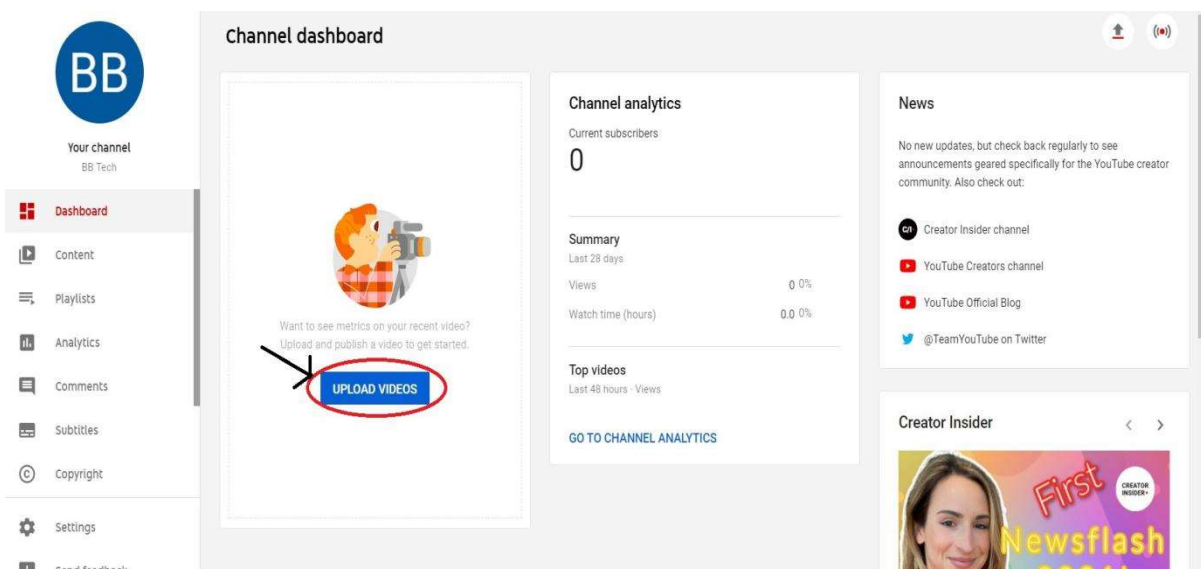
### ***Upload A Video-***

Now it's time to upload quality video on your YouTube channel.





Click on the “upload videos” button to get started.



### ***Choosing A Video Title-***

Video title is an essential part of every YouTuber before uploading their video. In today’s era, having a good content and uploading quality videos alone does not give an audience. You really need to focus on the video SEO parts like title, tags, thumbnails and description of the video before uploading it to pull the audience.

A video title is piece of short and sweet information about your video. So, YouTube can understand what kind of video you are producing and who’s your target audience. The title is the part that your audience sees before the video. Here the viewers decides whether to play the video or not. The best title can make the video best.

### ***Video Thumbnail-***

Video thumbnail is basically the cover photo that represents your video on YouTube. It is called thumbnail because a small version of this graphic will show up in the recommended videos and

other search areas of YouTube. Because thumbnail is the part of the video that the viewer sees first, it is important for thumbnail to be attractive. If the thumbnail is attractive then the viewer will definitely click on it.

### ***Video Channel Description Box-***

Descriptions can convey valuable information to the user which helps viewers to find your videos in search results and understand what they'll be watching and its purpose. Most of the brands, vloggers, or other less-formally produced channel skip the description box as unnecessary. But the truth is that description box is crucial player in your YouTube marketing strategy. As description box contents (along with your titles, tags, and captions) help YouTube to determine if and where your videos rank on search or as related videos.

A well-written content with the right keywords can boost views and watch time because they help your video to appear in search results. Your description should be written before the video is made public. Before uploading the description, you should know that 5 lines of description are essential. The first two lines are displayed next to your video in search and when posted on social media.

### **How to write an attentive. Eye catching YouTube Channel Description?**

- Include the keywords. A keyword is the main phrase you try to rank a video.
- Tell the viewers what your channel is, describe the main benefits.
- Include hashtags, it makes easier for other viewers to seek out related videos.
- Use simple words or natural language to describe your channel.
- Ends with strong CTA (Call to action), ask the user for subscribe, or turn on notification.

### ***Deleting A Video-***

YouTube clearly says, there is no way to undo this permanent action. Not only you will lose all of the comments and engagement from that video, but the most crucially, you will lose all of the views and Watch Time from that video. Deleting a video through YouTube website

Step 1 Sing in to your YouTube site, if you want to delete a video.

Step 2 Click on YouTube Studio button located towards the top-right corner of your screen, and then click on Videos.

Step 3 Check the boxes beside the videos which you want to delete.

Step 4 Click the action drop-down select delete.

### **Deleting a video through YouTube application**

**Step 1** Open the app and select located towards the top-right corner of your screen, and then click on Videos.

**Step 2** Select the *My Video* from the pop-up options.

**Step 3** On right side of each video, there will be a menu icon looks like three dots, tap on menu icon video which you want to delete. Now, tap on *Delete* option from the menu.

### ***Marketing Skills-***

YouTube is quickly becoming a key means for people to satisfy their information and entertainment needs, businesses that fail to include it in their online marketing strategy. Some tricks to promote your videos:

- **Complete your channel profile:** Make sure you have completed your YouTube channel profile. Write an attractive channel description and add a way for viewers to contact you so they can learn more about your business and contact you.
- **Thumbnails:** Many of us is not using while creating video, but thumbnails can have a big impact. Videos with a catchy title and appealing thumbnail usually rank higher. To get CTR (click to rate) you should use some highlighted areas, arrows, large text, and unexpected or unusual images.
- **Promote Your video on social media and other platform:** The more you will active on different social media platforms, the more audience you'll capture. Social media is another way to promote your channel, you can share your videos link on Facebook, on twitter, LinkedIn and many more platform. You can also post your full video on your blogs.
- **Connect with your audience:** It's not only important that YouTube is a social media channel, and therefore demands social interaction. Just not dump some videos on YouTube, blast them on social media and walk away from them expecting they will automatically generate more business for you. Your work is not ended by posting a video, without encouraging comments and discussion, you're missing a trick. Help your viewers, read the comments to improve your videos and show them that you value their opinion.
- **Upload videos based on keywords playlist:** It's important to select your keyword before you build your video content. It helps you to construct the best information around that specific topic and remember to include your keyword naturally throughout the content. This is best way to rank in search engine.
- **Brand your channel:** The branding of your channel is important since it represents your business and provides a great opportunity to add some identity to your channel. It focus on your content.
- **Constantly uploading:** You need to increase your posting frequency to at least one video in a week. Today's smartphones offer excellent video recording ability, and tools such as

Animoto make editing videos easy for anyone, so you don't need a design firm. It engaged followers and subsequently. advocators of your brand!

### ***SEO For Video-***

YouTube is one of the top search engines in the world, which is one of the reasons why it's such an attractive promotional tool for businesses. If you take the time to optimize the video and content of it on regular basis, you can reach to your targeted audience. Some factors to ranking your video on YouTube are:

- Title of your video: By giving title to your video be specific and use relevant keywords that allow your YouTube viewers to identify your video for relevant searches. You can use 100 characters, and you can change your title if you it's not performing well.
- Keywords: Use relevant keywords, that describe your channel.
- Tags: You need to add tags according to Google research tags.
- Audience watch time: Your total video watch time also counts towards your ranking.
- Likes/Dislikes: This is a important factor for your videos, if your videos get more likes it lead to a better ranking.
- Comments: If your video inspiring a lot of comments, it may be good.
- Subscribers: The more subscribers you have on your channel, the higher YouTube will rank your individual videos. To attract subscribers, produce good quality of videos and ask viewers to subscribe.

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## ***10.8 POINTS TO REMEMBER***

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- YouTube is a video-sharing platform which was started on February 14, 2005, by Steve Chen, Chad Hurley, and Jawed Karim. Its Headquarter in San Bruno, California.
- YouTube is the second largest search engine. It is a platform where user can upload a video, make playlist, likes, comments and manage their account.
- YouTube plays important role to promote your business and attract the user world-wide. You can create different types of channels.
- YouTube Marketing is an essential strategy to take advantage of the web's massive shift toward video.
- YouTube marketing skills is a key mean for user. You should follow all skills to promote your YouTube channel.
- If you take the time to optimize the video and content of it on regular basis, you can reach to your targeted audience.

- You really need to focus on the video SEO parts like title, tags, thumbnails and description of the video before uploading it to pull the audience.

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## **10.9 GLOSSARY**

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- **SEO:** Search Engine Optimization.
  - **CTR:** Click to Rate
  - **CTA:** Call to Action
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## **10.10 CHECK YOUR PROGRESS**

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### **Descriptive type questions-**

- List the benefits of YouTube channel in terms of promoting your products/services.
- What types of marketing skills help you to promote YouTube channel?
- Define in short, the various types of YouTube channels.
- How SEO is useful for YouTube?
- How can you create YouTube channel? Write the steps.

### **Objective type questions-**

- The title of the videos can be change. (True/False)
- YouTube is the fourth largest search engine. (True/False)
- CTR stands for Control to Rate. (True/False)
- YouTube is less popularly used for business world. (True/False)
- One cannot create and manage his/her YouTube channel without paying. (True/False)

### **Answer (Objective Type Question)-**

[a] True      [b] False      [c] False      [d] False      [e] False

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## **10.11 BIBLIOGRAPHY/ REFERENCES**

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- YouTube for Beginners, By Chandal Nolasco da Silva.
  - YouTube channels: content analysis of educational videos, by Mariana Martinho (University of Averio), Marta Pinto (University of Porto).
  - The Complete Guide to Building a Successful YouTube channel (<https://www.quicksprout.com/>)
  - <https://www.tutorialspoint.com/>
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## **10.12 SUGGESTED READINGS**

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## UNIT- 11

### VIDEO CHANNEL MANAGEMENT (YOUTUBE)- TOOLS AND ACTIVITIES- II

11.1 INTRODUCTION

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11.2 OBJECTIVES

---

11.3 VERIFYING YOUR YOUTUBE CHANNEL

---

11.4 PROMOTING A VIDEO

---

11.5 LICENSE OF YOUR CHANNEL

---

11.6 CREATE PLAYLISTS

---

11.7 TRANSCRIPTIONS

---

11.8 META TAGS

---

11.9 YOUTUBE LIVE STREAMING

---

11.10 YOUTUBE IN BUSINESS

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11.11 ADVERTISING ON YOUTUBE CHANNEL

---

11.12 YOUTUBE PREMIUM

---

11.13 POINTS TO REMEMBER

---

11.14 GLOSSARY

---

11.15 CHECK YOUR PROGRESS

---

11.16 BIBLIOGRAPHY/ REFERENCES

---

11.17 SUGGESTED READINGS

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#### ***11.1 INTRODUCTION***

As we earlier discussed, YouTube is a video sharing service where users can watch, like, share, comment and upload their own videos. The video services can be accessed on PCs, laptops, tablets and using mobile phones where Internet connection is mandatory. YouTube is the second most-visited website after Google Search, according to Alexa Internet rankings.

YouTube allows users to upload, view, rate, share, add to playlists, report, comment on videos, and subscribe to other users. Contents available on YouTube includes- video clips, TV show clips, music videos, short and documentary films, audio recordings, movie trailers, live streams, video blogging, short original videos, and educational videos.

Most content which is available on YouTube is generated and uploaded by individuals, but some media corporations including CBS, the BBC, Vevo, etc also offer some of their material via YouTube as part of the YouTube partnership program. Registered users can upload the videos on the YouTube while unregistered users can only watch the videos.

YouTube and selected creators earn advertising revenue from Google AdSense, a program that targets ads according to site content and audience. The vast majority of videos are free to view, but there are exceptions, including subscription-based premium channels, film rentals, as well as YouTube Music and YouTube Premium, subscription services respectively offering premium and ad-free music streaming, and ad-free access to all content, including exclusive content commissioned from notable personalities.

YouTube is a great place for discovering new things where one can freely watch videos, comedy shows, how to guides, recipes, listen music and many more. With several advantages and facilities there are some severe risks of using unsupervised/unguided YouTube, such as watching/viewing inappropriate Content, Cyber bullying, etc. Cyberbullying or cyberharassment is a form of bullying or harassment using electronic means. Cyberbullying and cyberharassment are also known as online bullying.

Some of the key functions performed by users on YouTube are-

- Users can search for and watch videos.
- Create a personal YouTube channel.
- Upload videos to your channel.
- Like/Comment/share other YouTube videos.
- Users can subscribe/follow other YouTube channels and users.
- Create playlists to organize videos and group videos together.

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## ***11.2 OBJECTIVES***

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After the successful completion of this unit, you will be able to-

- Understand the YouTube Video Channel management.
- Know about advanced tools on YouTube.
- Identify best practices of using YouTube in Business.

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## ***11.3 VERIFYING YOUR YOUTUBE CHANNEL***

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One of the ways to gain instant credibility is to get a verification badge for your account. That little tick mark next to your name gives your channel a sense of legitimacy. It proofs your

channel has survived the early teething stages, fought its way through the content jungle, and earned official recognition from YouTube.

### **A verification badge versus a verified account-**

Getting a verification badge and verifying your YouTube account are two very different things. When you first create a YouTube account, you are asked to add a phone number to get your account verified. This lets YouTube know you are a real person and not a spammer/bot.

Getting a verification badge is a little different. You know that little gray tick that sometimes appears next to a channel's name, that is your YouTube verification mark. When we talk about verification for the rest of this post, that is what we will be referring to. It is a mark of authenticity. It tells to visitors that, it is a real account associated with your brand. If someone ever change the name of the channel, he/she will lose his/her verification.

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## ***11.4 PROMOTING A VIDEO***

In this digital era, we are surrounded by several hand-held, multi-media devices that can connect to the Internet and stream high volume content where one can listen music, take pictures, shoot videos, and view all kinds of content on their devices. Video Marketing is one of the most effective ways to reach out to the customers because video is so engaging and now affordable. Some of the things to popularize/promote your videos are-

- Optimize Your Content.
- Craft Effective Thumbnails.
- Do not forget about Search Engine Optimization (SEO).
- Use social media.
- Integrate it with other marketing platforms.
- Do not forget to share.

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## ***11.5 LICENCE OF YOUR CHANNEL***

If you mean to ask how to you start earning by uploading videos on YouTube then you need to follow these 3 simple steps.

1. Enable monetization in your YouTube account and join the YouTube partner program. This will make sure that you earn money to play ads before your videos.
2. Second you need to have an AdSense account where you get paid for playing those ads.
3. After you have enabled monetization and set up an AdSense account you can turn on ads for eligible videos. Make sure that your videos are eligible for playing the ads before them.

If you follow these steps along with all the onscreen steps while setting up your account you are good to go.



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## 11.6 CREATE PLAYLISTS

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Playlists are an easy step when you are learning how to make a YouTube channel. Here are some basic instructions to create a YouTube playlist.

### How to make a YouTube playlist?

Step 1- Find the video you want in your playlist.

Step 2- Under the video, click the “Add to” button. (The three lines and a plus symbol.)

Step 3- From the dropdown menu, choose, “+ Create new playlist.”

Step 4- Enter the playlist name

Step 5- Choose the channel privacy settings: public, unlisted, or private.

Step 6- Click “Create.”

### What is a YouTube playlist?

A playlist is a group of videos created by you or someone else on your YouTube channel. Whether you are a YouTube viewer or creator, it is a way to organize videos with similar characteristics as per your choice.

For example, as an actor, I have a playlist of pop-up songs. I love to listen to when I need high energy before a performance. In the same way, I could create a playlist of YouTube videos. When I want to use YouTube for research and inspiration, I could create a playlist of actor interviews or auditions.

When you are building your YouTube strategy and exploring the channel, you will see that playlists donot just apply to viewers; they are essential for YouTube creators too. Without playlists, your channel looks blank, and you arenot giving your uploaded YouTube videos the maximum potential exposure.

### The benefits of YouTube playlist for its creators-

- [a] Increased exposure in YouTube search results.
- [b] Showing YouTube viewers your channel’s in-depth content/ value.
- [c] Helping users to navigate and find YouTube videos.
- [d] A source of content for YouTubers short on time.

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## 11.7 TRANSCRIPTION

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Many of us may not know, that YouTube comes with many useful features like translation for titles and description, YouTube keyboard shortcuts, etc. Similarly, there are ways with which you can transcribe YouTube videos. As nowadays, the speech recognition software have improved, where one can get a reliable automatic transcription that can be easily edited to perfection with little or no efforts. It is quite easy to transcribe YouTube videos as YouTube automatically transcribes most of the videos as soon as they are uploaded.

## How to transcribe YouTube videos?

There are two ways to do the same- (i) Copy/Paste YouTube transcript (ii) Transcribe with Google Docs.

### [i] Copy/Paste YouTube transcript-

Most of the YouTube videos are automatically transcribed using Google's speech recognition technology. There is also a chance that the owner of the video may have personally transcribed the video and made it available for the readers. Here are steps to do the same-

Step 1- Click on the **More** button below the video and select **Transcript** from the menu.

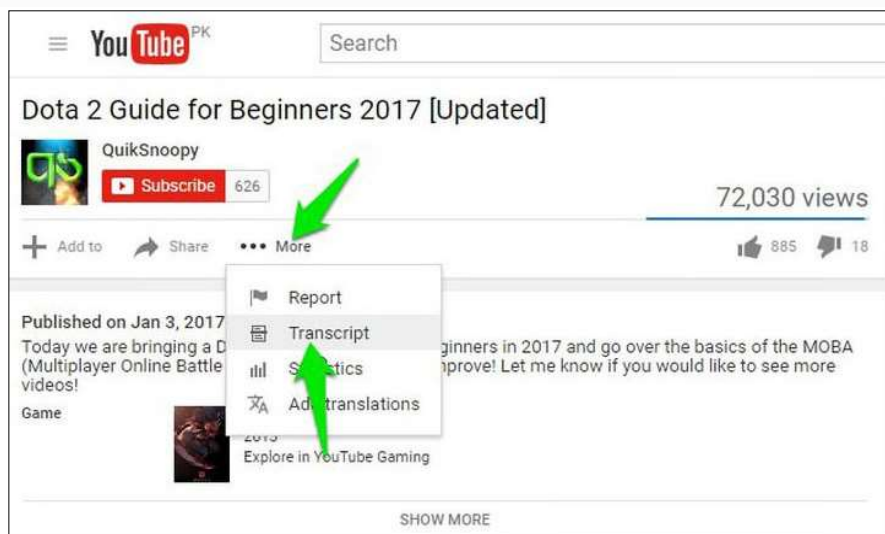


Figure 11.1 YouTube Transcript

Below you will be asked to select a language. Make your choice and you will see a “full transcript along with timestamps”.

Now “click and drag to highlight all the text” and press Ctrl + C to copy the text. You can paste this text anywhere and your transcript will be ready.

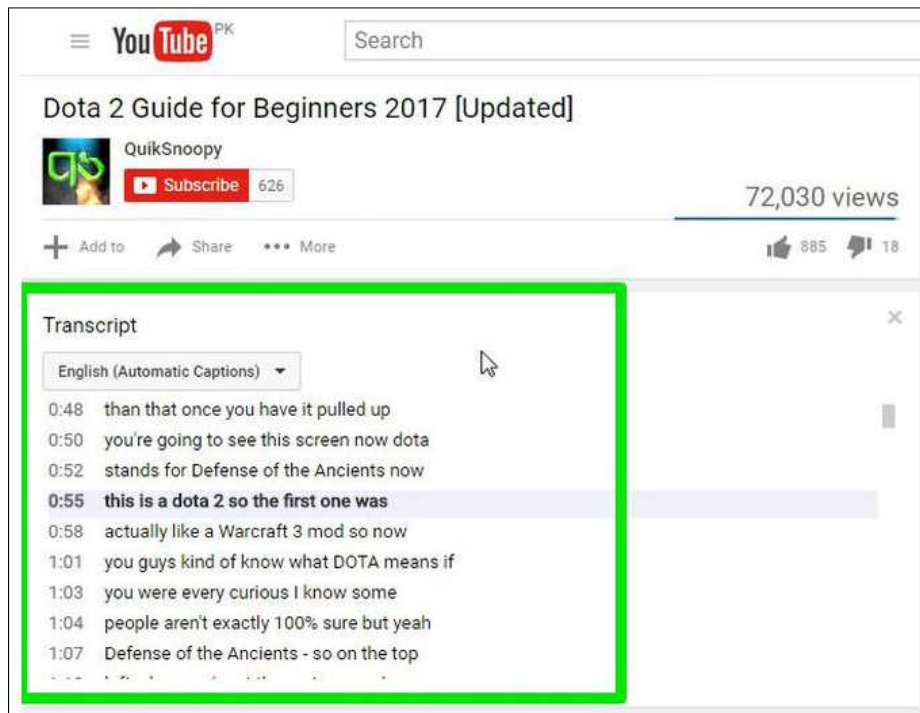


Figure 11.2 Transcript -2

YouTube automatically highlights words that it might have picked wrong which makes it easy to edit the transcript. Just click on the CC button in the YouTube player to enable subtitles and you will see the subtitles in white.

However, the subtitles with gray colour are the ones that might have some mistakes. You can see this to easily amend the transcription. Although do keep in mind that subtitles uploaded by the video owner will not have gray words.

### [ii] Transcribe with Google Docs

If you want to transcribe a video without an available transcript, then you can use the GoogleDocs built-in voice typing feature to listen to the video audio and automatically type everything. In order to have a good quality transcript, it is recommended to make the PC directly **listen to the audio coming out of its speakers**. Here is how to do it-

Step 1- In Windows, right-click on the sound icon in the taskbar and select **Recording devices**.

Step 2- Now select "**Stereo Mix**" from the list and click "**Set Default**" to set it as default source of recording.

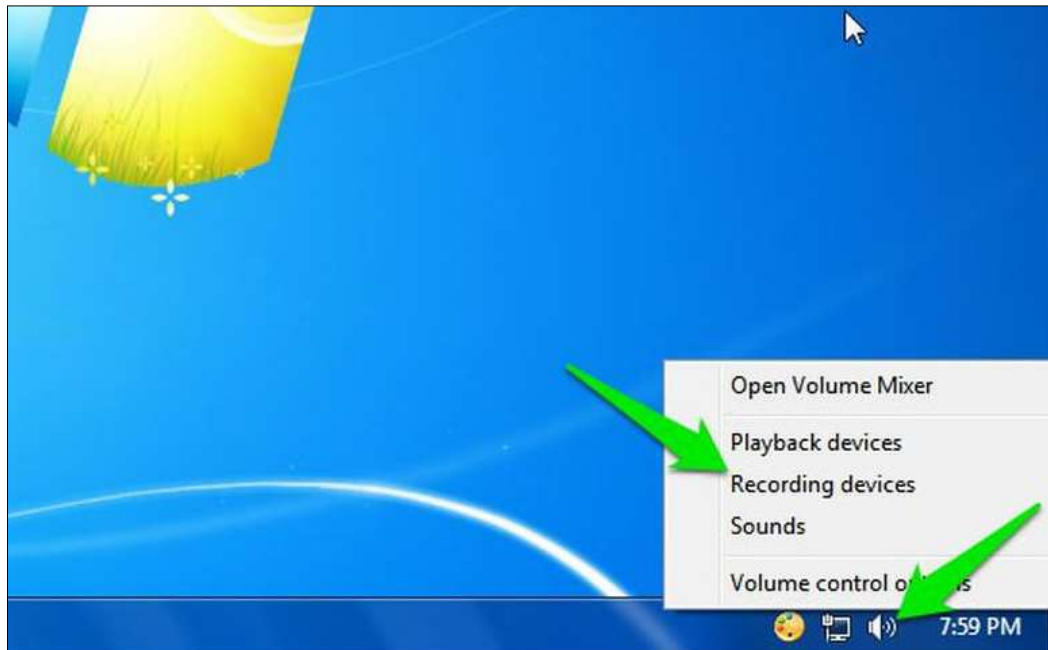


Figure 11.3 Recording setting

In case Stereo Mix option is not supported by your PC's sound card, then you can download and install the VB Virtual Audio Cable tool and get an alternative option in the same menu. After installing the drivers of the tool, you should see a "Cable Output" option in the same sound options. Select this option and then click "Set Default".



Figure 11.4 Recording setting-2

After this, your PC will listen to the audio coming out of the speakers for recording purposes. Now you just need to start Google Docs Voice typing and the required video simultaneously to start the transcription.

Step 3-**Open Google Docs in Chrome** or any other browser (Voice Typing isn't supported in non-Chromium browsers).

Step 4-Now create a new document and select "**Voice typing**" from the **Tools** menu on top.

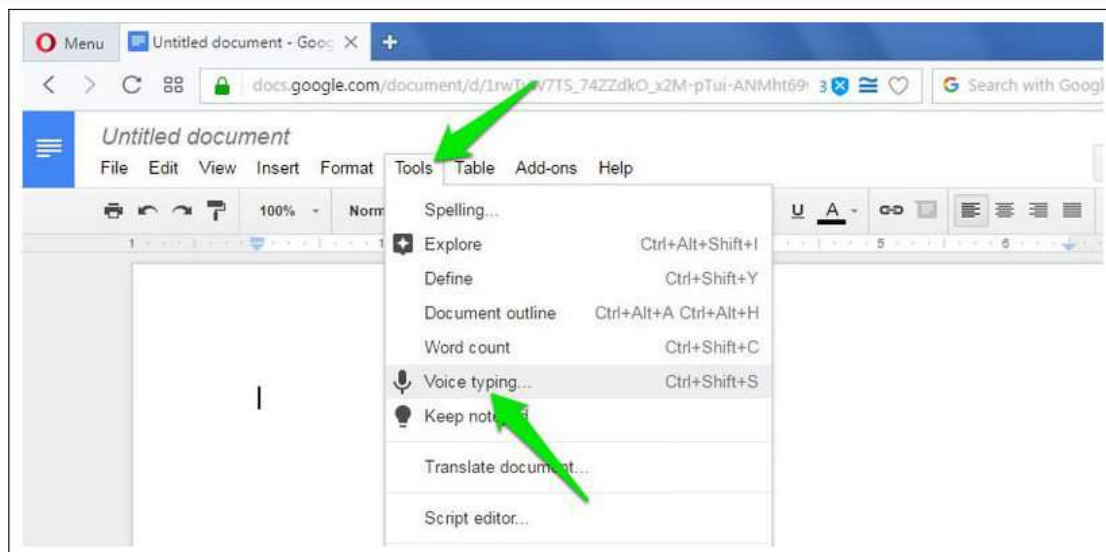


Figure 11.5 Voice Typing

Step 5- A tiny box will show up with a microphone icon in the middle. **Click on it to start recording.**

Step 6- Move to the YouTube video tab and **play the video**. Google Docs will automatically type when people will speak in the YouTube video.

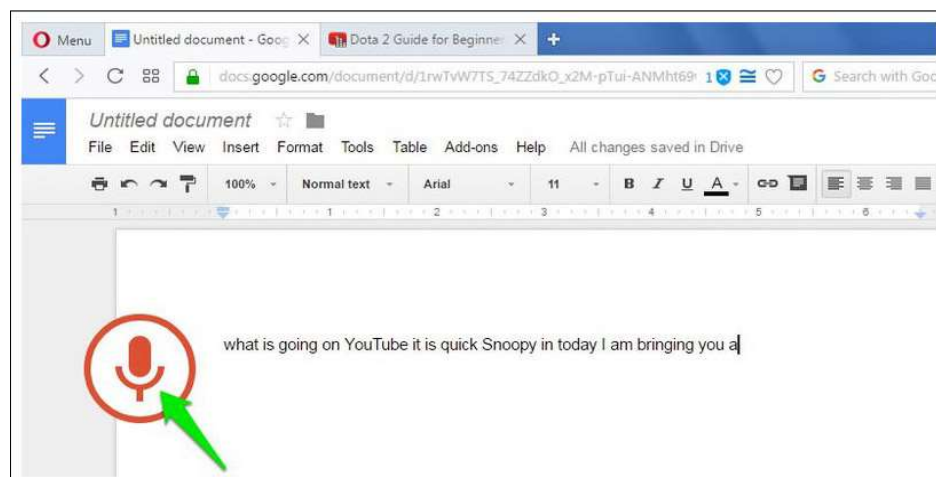


Figure 11.6 Voice Typing-2

Of course, **this process will take as much time as the duration of the video**, but at the end you'll have a good transcript of the video. Google Docs Voice typing also has **support for over 40 languages**, you can click on the Voice typing box menu to change the language. The resulted transcript should be as good as YouTube's own automatic captioning service as both use the same Speech Recognition technology.

## 11.8 META TAGS

YouTube tags are words and phrases that describe your video and provide more context to help people to find your content.

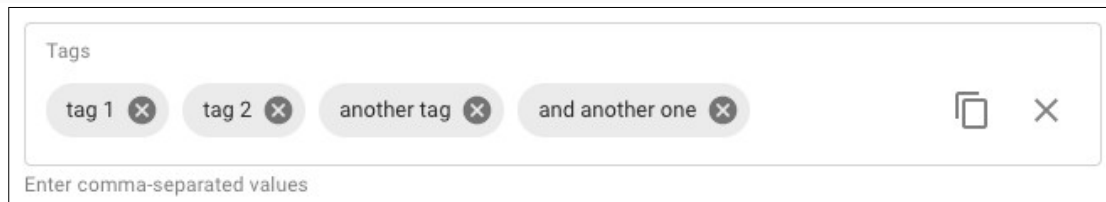


Figure 11.7 Meta Tags

### Why are YouTube tags important?

Your video's title, thumbnail and description are more important pieces of metadata for your video's discovery. These main pieces of information help viewers to decide which video they should watch.

“Tags can be useful if the content of your video is commonly misspelled. Otherwise, tags play a minimal role in your video's discovery.”

### How we add tags to our YouTube videos?

The process of adding YouTube tags to the videos is quite simple. We can add tags to each video no longer than 5 to 10 minutes. The steps are-

- Step 1- Set your primary target keyword as the first tag.
- Step 2- Add common, relevant keywords from top-ranking videos.
- Step 3- Add relevant keywords with search volume.

## 11.9 YOUTUBE LIVE STREAMING

### How to enable live streaming on YouTube?

Live streaming is disabled on new YouTube channels by default. Here are steps to enable it-

- a) First, verify your YouTube account. It is a simple process as discussed before.
- b) Enable live streaming via the channel features page, the “YouTube Studio live events page”, or the “Live Control Room”.
- c) Wait for 24 hours to activate live streaming on your account.

As long as there are not any live streaming restrictions on your channel, you can now live stream on YouTube through a web browser or streaming encoder. If you want to use a mobile device to live stream, there is an additional hurdle: your channel must have at least 1,000 subscribers. Annoying, but there are other ways of mobile live streaming out there.

### Four ways to live stream on YouTube-

You can live stream on YouTube through the following-

- Web browser
- Mobile device
- Software encoder
- Hardware encoder

### **How to live stream on YouTube: Web browser**

The easiest way to live stream on YouTube is straight from your web browser using a built-in or external USB webcam. A webcam might meet your needs if all you want to do is share your thoughts and engage with your audience in real time. It's also possible to live stream through your browser with a higher-end camera like a digital camcorder or DSLR. To do so, you'll need a USB capture card to bring the video signal into your computer. Then YouTube can recognize the camera as if it were a plug-and-play webcam.

Once you're all set with a camera, here's how to live stream on YouTube through your web browser:

1. Log into your YouTube account and click the "Create a video or post" button in the top-right corner of the screen.
2. Select "Go Live" from the drop-down menu.
3. If prompted, give YouTube and your browser any required permissions for live streaming (i.e., camera, microphone).
4. In the Live Control Room, ensure "Webcam" is selected in the navigation bar at the top.
5. Give your live stream a title, select a privacy setting (public, private, or unlisted), and choose whether you'd like to live stream now or schedule an event for later.
6. Click "More options." Select your camera and microphone from the drop-down menus if they aren't listed already.
7. Click "Advanced settings" to toggle chat, age restriction, and monetization (YouTube Partner Program members only).
8. Press "Next" and pose for a thumbnail. Mouse over the thumbnail to bring up options to take another picture or upload a custom thumbnail from your computer.
9. Hit "Go live."

That's it. Remember to press "End Stream" when you're finished. YouTube will automatically upload an on-demand version of the live stream to your channel so viewers who missed it can play it back. You can see and manage all your current, scheduled, and past live streams within the "Manage" tab in the Live Control Room.

### **How to live stream on YouTube: Mobile**

Mobile live streaming is ideal for spur-of-the-moment audience engagements and dynamic events where freedom of movement is key.

Once you've hit the subscriber threshold, though, live streaming to YouTube on a mobile device is pretty simple:

1. Download the YouTube app from the App Store (iOS) or Google Play (Android).
2. Open the app and press on the camera icon in the top-right corner.
3. Grant all the permissions YouTube needs for live streaming (camera, microphone, photos, storage).
4. Select "Go live."
5. Choose to record with your phone's camera (camera icon) or what's on your display (phone icon).
6. Set a title for your stream.
7. Press "More options" to add a description, toggle live chat and monetization (if eligible), set an age restriction, configure privacy settings, and (optionally) schedule a time for your live stream.
8. Press "Next" and take a picture for your live stream thumbnail or upload an existing one from your phone's storage.
9. Hit "Go live."

Now you're ready for some untethered live streaming. When you're done, hit "Finish" and then "OK" to end the stream. A VOD version of your live stream will appear on your channel after. You can access and manage that recording and others through the "My videos" page within the "Library" tab.

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## ***11.10 YOUTUBE IN BUSINESS***

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- YouTube is home to more than 2 billion users worldwide and drives more than 30 million daily visits, making it a great platform for small businesses looking to market with video content.
- Video is extremely engaging and useful for many types of businesses. Creating a YouTube channel for your business offers a centralized platform for your audience to view and engage with your videos.
- Completely fill out your YouTube profile and follow these tips to upload engaging video content that will resonate with your audience and grow your followership.

Since its launch in 2005, YouTube has become a modern media powerhouse. Currently, YouTube has more than 2 billion users worldwide and 30 million daily visitors. Nearly 500 hours of video are uploaded to the site every minute, with more than 2,400 channels that exceed 1 million subscribers. The platform was purchased by Google in 2016 and currently ranks No. 2 for global and domestic web traffic, according to Alexa.

Marketing is moving toward video over static content, and YouTube is a key player. For an individual user, the site appears straightforward, but it's more complicated if you want to use it to market and grow your business. Here's what you should know to use YouTube for business.



## How to set up a YouTube channel

These guides break down the process by which you can set up a YouTube channel for your small business. Each examines an important element of creating and optimizing your YouTube channel.

1. Signing up for a business YouTube account
2. Customizing your YouTube profile
3. Interacting with others on YouTube
4. Verifying your channel
5. YouTube Live
6. Trending videos on YouTube
7. YouTubers and influencers
8. Advertising on YouTube
9. YouTube Partner Program
10. YouTube Premium
11. YouTube tips and tricks

## Signing up for a business YouTube account

Most social media networks require you to set up an account before you can view content. That's not the case with YouTube; you can view content without a YouTube account. However, an account is required for your company to upload videos and engage with other users. Membership is also required to view videos flagged as adult content.

Follow these steps to create your business YouTube account:

1. **Sign in to your company's Google account.** If you use Gmail for your business email, you'll use the same username and password for your YouTube account that you use for Gmail. Alternatively, you can create a new Google account that you use solely for YouTube business purposes.
2. **Once signed in, visit YouTube's homepage.** Double-check that you're signed in to the appropriate business account instead of your personal YouTube account.
3. **Click on your Google account's avatar.** You'll find this in the top right corner. It's a small circle containing your picture (or your company's logo if you've set that as your email address's picture).
4. **Click on "Your channel."** This option will appear in the dropdown menu that displays when you click your avatar. It's the top option in the first batch of icons.
5. **Choose "use a business or other name."** You'll need to select this option to get started with a business YouTube account. You can then enter your company's name.
6. **Click "Create."** Then, voila! You have a business YouTube account.

Once you've taken these steps, return to the YouTube homepage. In the top left corner of the page, there is a dropdown menu with quite a few options. There are links for the homepage, trending videos, your library and your subscriptions. Your library lets you organize which videos you've watched, liked and saved for later. Under your subscriptions, you can see all the channels you're subscribed to and receive notifications when they've uploaded new content.

In the top right corner of the page, there are four buttons. The one closest to the center, which is an icon of a video camera, directs you to the page where you upload a video. The middle icon, a square comprising nine smaller squares, is for YouTube apps. The next one, the bubble icon, will take you to messages. The next button is an icon of a bell, and it notifies you of your account activity, such as a new like or comment. The one closest to the right side, which is an icon of your profile picture, will direct you to your account information pulled from Google.

## Interacting with others on YouTube

There are several ways to interact with other YouTube users.

- **Comments:** Comments can be organized by most popular or newest. You can boost your video's engagement traffic by responding to users who comment on your videos.
- **Likes:** This is a more passive form of interacting with content. However, if you've chosen to show your likes publicly on your channel, these videos will appear under the playlists section on your channel.
- **Subscriptions:** The best way for users to stay up to date with your brand's content is to subscribe. Every time you upload a new video, your subscribers receive a push notification. You should constantly encourage viewers to subscribe to your channel, as it improves your engagement traffic and increases the number of views. Many popular YouTubers incorporate reminders to subscribe at the beginning and/or end of their videos.
- **Playlists:** You can organize related content together using the site's playlist feature. If you choose to publicize your playlists, they will appear on your channel's page below your uploaded content. You can also organize other users' content with a playlist. For instance, if you run a marketing agency, you could compile a client's videos into one big list. Otherwise, this is another way to organize your own content on your channel.
- **Sharing:** The site's social widget allows users to share videos on other social media networks, such as Twitter, Facebook, Google Plus, Blogger, Reddit, Tumblr, Pinterest and LinkedIn.
- **Messages:** You can also share private videos and messages with friends and contacts on YouTube.

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### ***11.11 ADVERTISING ON YOUTUBE CHANNEL***

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YouTube advertising, done through Google Ads, is a way of advertising your video content on YouTube or in search results so you can maximize your user reach. This could be your video

playing before a user view another's video or showing up in YouTube search results for people to watch in full.

**Types of YouTube Ads-** There are six types of YouTube ads:

- 1) TrueView ads
- 2) Non-skippable instream ads
- 3) Bumper instream ads
- 4) Sponsored card ads
- 5) Overlay ads
- 6) Display ads

What is a YouTube TrueView Ad?

This is the main advertising format on YouTube — and for that reason, we'll be covering this type in more depth than the others.

TrueView ads give viewers the most control over the advertisements they see. Because of this, Google reports that eight out of ten viewers prefer TrueView to other in-stream video ad formats.

But TrueView ads are great for businesses too.

Advertisers only pay for TrueView ads when users watch for at least 30 seconds, watch an entire short video, or interact with an ad in some way, such as clicking on a call-to-action.

And because viewers can select the ads they want to watch and skip the ads they don't, advertisers save money while also reaching a more interested audience.

YouTube states that the maximum length a TrueView video ad can be is 6 minutes and the minimum is 12 seconds.

Now, there are two main types of TrueView ads: in-stream ads and discovery ads. Let's take a closer look at each of them.

**TrueView Instream Ads**

TrueView in-stream ads play before a viewer's chosen video.

The image below features a TrueView in-stream ad from unbounce

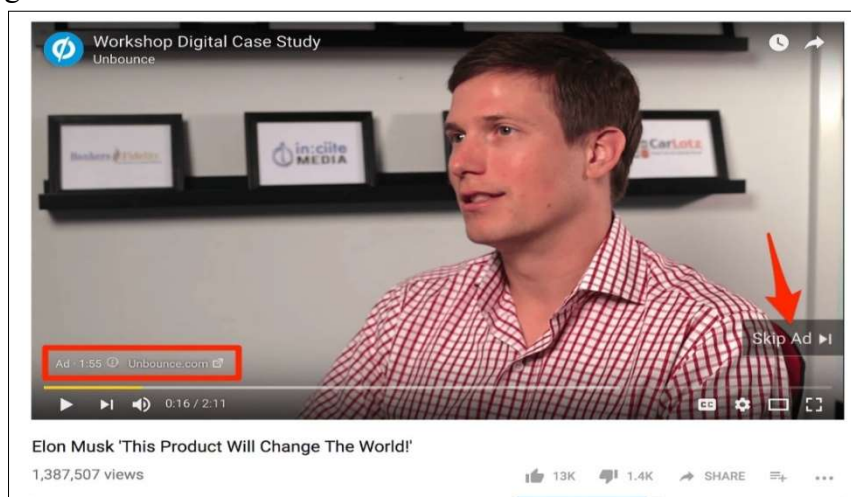


Figure 11.8 Youtube Bounce Option

In-stream ads also feature a small countdown timer and a link to the advertised site in the bottom left of the screen. What's more, TrueView in-stream ads have a companion banner ad that's displayed in the right-hand sidebar above the suggested videos list. The image below shows the companion ad for the Unbounce advertisement above:

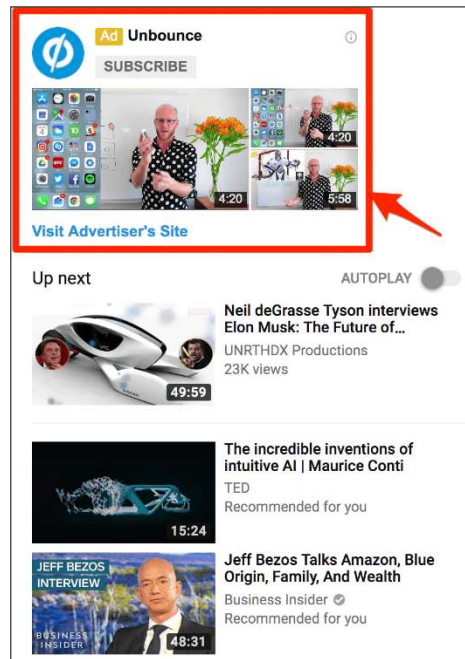


Figure 11.9 Youtube Bounce Option

Marketers are able to customize TrueView in-stream ads with calls-to-action and text overlays.

## How to Advertise on YouTube

Depending on your expectations how you advertise on YouTube will differ. YouTube advertising can be used to build brand awareness, influence the buying decision, grow sales, or increase brand loyalty. Video advertisements on YouTube can be used to drive these objectives in the following ways:

- **Build Brand Awareness**  
Introduce your product to people who do not know much, or anything, about it yet. Target people who are interested in similar products and areas to you so you know there are commonalities.
- **Influence the Buyer Decision**  
Videos that justify why your product is the best option for your customer, including hard evidence to back it up, convert the best so capitalize on it.
- **Grow Sales**

Branch out to lookalike audiences that you have never targeted before and test new tactics. Research ways to link your product to others and start growing sales.

- **Increase Brand Loyalty**

Invite your customers to talk about your product in your videos and show prospects that you provide the best products and services in the business.

## **What are the Benefits of YouTube Advertising?**

The cost of YouTube advertising can be off-putting for small companies, especially if your core business is drop shipping. This could be because you do not have much capital to invest, or maybe you are not seeing the ad revenue you expected from other advertising platforms, like social media advertising.

But YouTube advertising focuses on a different content format, with a very different way of engaging with people. If your audience engages with video content better than others then YouTube advertising is the best platform to discover ad revenue from.

### **Reach**

As YouTube has over 1 billion users on the platform, and over 1 billion unique visits each month, YouTube advertising has the potential to reach a large percentage of the population when they are highly engaged.

### **Targeting**

YouTube, as part of the Google empire, has a wealth of knowledge that only Facebook can rival. This knowledge of individual preferences and interests can help you target the right people with your YouTube advertising. Be careful not to over optimize your targeting and limit your reach.

### **Data**

The reports you receive during your advertising campaigns are in-depth and provide information about not just your ads but also those who interacted with them. Get to know the audience who interacted with your content. What content did they enjoy before they went on to buy something from your store? Linking your Google Ads and Analytics accounts together to get more information.

### **Users**

After a person has visited your website and shown interest in your business, don't wait for them to come back again – build a relationship with them. As part of the Google suite, remarketing can help you target people with ads if they have visited your website, meaning that you can lead them back to your website, build trust with them, and, hopefully, make a sale in the future.

### **Flexibility**

YouTube advertising is not static; it is constantly changing, and so can your ads. You can change your targeting, ad schedule, ad copy, etc, in real time to ensure you get the most out of your advertising budget with YouTube. Tailor your ads over time to evolve as your audience does.

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## **11.12 YOUTUBE PREMIUM**

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Google announced YouTube Music, YouTube Music Premium and YouTube Premium on Thursday — a dramatic change to its current music and video offerings.

Here's basically what's happening: It's getting rid of YouTube Red and splitting that into new services. YouTube Red, if you're unfamiliar, was a \$11.99 monthly plan that offered an ad-free YouTube experience that included music. Customers who currently pay for YouTube Red will get the new YouTube Premium service at the same price they currently pay.

The new plan still sounds confusing, so I'm going to break down what Google's doing here.

YouTube Premium is Google's new paid all-encompassing ad-free service. (The free version of YouTube, with ads, will live on.)

YouTube Premium costs \$11.99 a month and includes ad-free video, the option to continue playing videos or music "in the background" (meaning the audio will continue if you minimize the app), music and video downloads, and access to YouTube original movies and TV shows. It also includes YouTube Music Premium, which alone costs \$9.99 per month.

If you're looking to pay for one of these, YouTube Premium is the best bet since it offers the most bang for your buck.

### **YouTube Music Premium**

YouTube Music Premium is included in YouTube Premium but can also be purchased as a stand-alone product for \$9.99 a month.

It includes music playlists, music videos, remixes and live versions of songs. Subscribers to Google's Spotify competitor, Google Play Music, get this as part of that subscription. Google Play Music costs \$9.99 a month, so your best bet is to just subscribe to that and then you get YouTube Music Premium included.

Again, unless you're focused purely on music, you might as well pay the extra \$2 a month to get YouTube Premium.

### **How does this compare to its rivals?**

Google is trying to make a move against Spotify and Apple Music. Those services are still compelling on their own, however. Both offer family plans for \$15 a month, which YouTube Premium doesn't have. Apple Music and Spotify have music videos and live concerts, just like YouTube Music Premium. Also, Spotify recently tried to stand out by partnering to offer Hulu with limited commercials for \$12.99 a month.

Taking customers away from their existing streaming music service is tough. Consumers have established playlists and music libraries, for example, which means they need to start fresh when they begin a new service. Since Spotify has been around for so long, it already has an

established user base of 157 million monthly users and 71 million paying subscribers. To attract newcomers, Spotify also recently introduced a more compelling free service.

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### ***11.13 POINTS TO REMEMBER***

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- YouTube is a video sharing service where users can watch, like, share, comment and upload their own videos. The video service can be accessed on PCs, laptops, tablets and via mobile phones.
- YouTube allows users to upload, view, rate, share, add to playlists, report, comment on videos, and subscribe to other users.
- Video Marketing is one of the most effective ways to reach out to customers because video is so engaging and now affordable.
- A playlist is a group of videos created by you or someone else on YouTube. Whether you are a YouTube viewer or creator, it's a way to organize videos with similar characteristics.
- The cost of YouTube advertising can be off-putting for small companies, especially if your core business is drop shipping. This could be because you do not have much capital to invest, or maybe you are not seeing the ad revenue you expected from other advertising platforms, like social media advertising.
- Comments can be organized by most popular or newest. You can boost your video's engagement traffic by responding to users who comment on your videos.
- This is a more passive form of interacting with content. However, if you've chosen to show your likes publicly on your channel, these videos will appear under the playlists section on your channel.
- The best way for users to stay up to date with your brand's content is to subscribe. Every time you upload a new video, your subscribers receive a push notification. You should constantly encourage viewers to subscribe to your channel, as it improves your engagement traffic and increases the number of views. Many popular YouTubers incorporate reminders to subscribe at the beginning and/or end of their videos.
- YouTube tags are words and phrases that describe your video and provide more context to help people find your content.
- YouTube advertising, done through Google Ads, is a way of advertising your video content on YouTube or in search results so you can maximize your user reach.
- YouTube Premium costs \$11.99 a month and includes ad-free video, the option to continue playing videos or music "in the background" (meaning the audio will continue if you minimize the app), music and video downloads, and access to YouTube original movies and TV shows.

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### ***11.14 GLOSSARY***

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- SEO- Search Engine Optimization.

- URL- Uniform Resource Locator.
- GDPR- General Data Protection Regulation.
- UVC- USB Video Class.
- HDMI-High-Definition Multimedia Interface.

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## ***11.15 CHECK YOUR PROGRESS***

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### **Descriptive type questions-**

- a) What are the main functions of YouTube?
- b) How to set up a YouTube channel. Explain in details.
- c) Explain the tips for keeping your child safe on YouTube.
- d) What are YouTube tags? Why are YouTube tags important?
- e) What is a YouTube playlist? Discuss the benefits of YouTube playlists for creators.
- f) How to enable live streaming on YouTube?
- g) Why do a competition analysis on YouTube? How to find your competitors on YouTube.

### **Objective type questions-**

- a) YouTube automatically highlights words that it might have picked wrong which makes it easy to edit the transcript. (True/False)
- b) A playlist is a group of audios created by you or someone else on YouTube. (True/False)
- c) Mobile live streaming is ideal for spur-of-the-moment audience engagements and dynamic events where freedom of movement is key. (True/False)
- d) YouTube is a business fail, a social media platform easy. (True/False)
- e) Display ads are another simple YouTube advertising format. These ads have been around for a while and appear in the right-hand sidebar above the suggested videos list. (True/False)
- f) ..... can be organized by most popular or newest. You can boost your video's engagement traffic by responding to users who comment on your videos
- g) A ..... is an appliance purpose-built for video streaming, capturing, recording – or all three.

### **Answer (Objective Type Question)-**

[a] True      [b] False      [c] True      [d] False      [e] True

[f] Comment    [g] hardware encoder

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## ***11.16 BIBLIOGRAPHY/ REFERENCES***

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- <https://biteable.com/blog/how-to-get-verified-on-youtube/>
- <https://www.quora.com/How-do-I-get-a-YouTube-licence>
- <https://learn.g2.com/how-to-make-a-playlist-on-youtube>
- <https://www.epiphan.com/blog/how-to-live-stream-on-youtube/>
- <https://www.oberlo.in/blog/youtube-ads-beginners-launch-first-campaign>
- <https://www.businessnewsdaily.com/9854-youtube-for-business.html>

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### ***11.17 SUGGESTED READINGS***

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- Duke Morris, You Tube: Introduction into Marketing opportunities with YouTube: Volume 1. Published by CreateSpace Independent Pub.

## UNIT- 12

### DIGITAL INDIA PROGRAMME- PROSPECTS

12.1 INTRODUCTION

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12.2 OBJECTIVES

---

12.3 THE DIGITAL INDIA PROGRAMM- AN OVERVIEW

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12.4 DIGITAL INDIA INITIATIVES- AS INFRASTRUCTURE

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12.5 DIGITAL INDIA INITIATIVES- AS SERVICE

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12.6 DIGITAL INDIA INITIATIVES- AS EMPOWERMENT

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12.7 CHELLENGES OF DIGITAL INDIA PROGRAMME

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12.8 POINTS TO REMEMBER

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12.9 GLOSSARY

---

12.10 CHECK YOUR PROGRESS

---

12.11 BIBLIOGRAPHY/ REFERENCES

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12.12 SUGGESTED READINGS

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#### ***12.1 INTRODUCTION***

Digital India is a flagship programme of the Government of India (GoI) with a vision to transform India into a digitally empowered society and knowledge economy. E-governance initiatives in India took a broader dimension in the mid-1990s for wider sectoral applications with emphasis on citizen-centric services. The major ICT initiatives of the Government included, inter alia, some major projects, such as railway computerization, land record computerisation etc., which focused mainly on the development of information systems. Later on, many states started ambitious individual e-governance projects aimed at providing electronic services to citizens.

The national level e-governance programme called National e-Governance Plan (NeGP) was initiated in 2006. There were 31 Mission Mode Projects (MMPs) under National e-Governance Plan covering a wide range of domains viz. agriculture, land records, health, education, passports, police, courts, municipalities, commercial taxes and treasuries etc. 24 Mission Mode

Projects have been implemented and started delivering either full or partial range of envisaged services. Considering the shortcomings in National e-Governance Plan that included lack of integration amongst Government applications and databases, low degree of government process re-engineering, scope for leveraging emerging technologies like mobile and cloud etc., the Government of India approved e-Kranti programme with the vision of “Transforming e-Governance for Transforming Governance”. All new and ongoing e-governance projects as well as the existing projects, which are being revamped, should now follow the key principles of e-Kranti. The portfolio of Mission Mode Projects has increased from 31 to 44 MMPs. Many new social sector projects namely Women and Child Development, Social Benefits, Financial Inclusion, Urban Governance eBhasha etc., have been added as new MMPs under e-Kranti.

[Source: <https://www.digitalindia.gov.in/content/introduction>]

Several initiatives have been taken for the introduction of Information Technology (IT) to empower people in areas relating to health, education, labour and employment, commerce etc. Digital India Week has been launched with an aim to impart knowledge to people and to empower themselves through the Digital India Programme of Government of India. Digital India comprises of various initiatives under the single programme each targeted to prepare India for becoming a knowledge economy and for bringing good governance to citizens through synchronized and co-ordinated engagement of the entire Government. The Digital India programme has been envisaged and coordinated by the Department of Electronics and Information Technology (DeitY) in collaboration with various Central Ministries/ Departments and State Governments.

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## **12.2 OBJECTIVES**

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After the successful completion of this unit, you will be able to-

- Understand the vision behind the Digital India programme.
- Aware with Digital India Initiatives- As Infrastructure, Service, and Empowerment.
- Know the several schemes launched under Digital India programme.

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## **12.3 THE DIGITAL INDIA PROGRAMME- AN OVERVIEW**

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The vision of Digital India programme is centred on the three key areas- (i) Digital Infrastructure as a Core Utility to Every Citizen (ii) Governance & Services on Demand, (iii) Digital Empowerment of Citizens.

### **[1] Digital Infrastructure as a Core Utility to Every Citizen-**

A well-connected nation is a prerequisite to a well-served nation. Once the remotest of the Indian villagers are digitally connected through broadband and high-speed internet, then delivery of electronic government services to every citizen, targeted social benefits, and financial inclusion can be achieved in reality. The high-speed internet accessibility and to

facilitate online delivery of various services is one of the key objectives under Digital India Programme. To enable the infrastructure for digital identity, financial inclusion and ensure easy availability of common services centres.

## **[2] Governance and Services on Demand-**

Sustained efforts have been made at multiple levels to improve the delivery of public services and simplify the process of accessing them. E-governance in India has steadily evolved from computerization of Government departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency. The National e-Governance Plan (NeGP) was approved in 2006 to take a holistic view of e-governance initiatives across the country, integrating them into a collective vision. The ultimate objective was to make all government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability of such services at affordable costs to realise the basic needs of the common man. The following elements are crucial for ensuring that governance and services are made available on demand to all citizens and other stakeholders in the country, as- Seamlessly integrated services across departments, Services available in real time from online and mobile platforms, All citizen entitlements to be portable and available on the cloud, Digitally transformed services for improving ease of doing business, making financial transaction electronic and cashless, and leveraging Geospatial Information System (GIS) for decision support systems and development.

## **[3] Digital Empowerment of Citizens-**

Digital connectivity is a great leveller. Cutting across demographic and socio-economic segments, Indians are increasingly connecting and communicating with each other through mobile phones and computers riding on digital networks. The Digital India programme itself promises to transfer India into a digitally empowered society by focusing on digital literacy, digital resources, and collaborative digital platforms. This also places emphasis on universal digital literacy and availability of digital resources/services in Indian languages.

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## ***12.4 DIGITAL INDIA INITIATIVES- AS INFRASTRUCTURE***

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Digital India Initiatives are categorized into three key areas, as- **Infrastructure**, Services, and Empowerment. Here we are describing the infrastructure related initiatives.

1. **Aadhar** [[www.uidai.gov.in](http://www.uidai.gov.in)]- It is one of the key pillars of 'Digital India', wherein every resident of the country is provided with a unique identity or Aadhaar number. The largest biometrics-based identification system in the world, Aadhaar is a strategic policy tool for social and financial inclusion, public sector delivery reforms, managing fiscal budgets, increase convenience and promote hassle-free people-centric governance. It may be used as a basis for several Government welfare schemes and programmes for effective service delivery by promoting transparency and good governance.

2. **Bharat Broadband Network** [[www.bbnl.nic.in](http://www.bbnl.nic.in)]- It is a special purpose vehicle set-up under Companies Act by the Government of India. It has been mandated to create the National Optical Fiber Network (NOFN) in India.
3. **Centre for Excellence- Internet of Things (COE-IT)** [[www.coe-iot.in](http://www.coe-iot.in)]- The Centre of Excellence for IoT was announced as a part of the Digital India Initiative to jump start the IOT ecosystem taking advantage of India's IT strengths and help the country attain a leadership role in the convergent area of hardware and software. The objective of the center is to create innovative applications and domain capability and it will help to build industry capable talent, start-up community and an entrepreneurial ecosystem for IoT.
4. **Computer Emergency Response Team- India (CERT-IN)** [[www.cert-in.org.in](http://www.cert-in.org.in)]- It provides incident prevention and response services as well as security quality management services. The functional areas of CERT in respect to cyber security are- (i) Collection, analysis and dissemination of information on cyber incidents (ii) Forecast and alerts of cyber security incidents (iii) Emergency measures for handling cyber security incidents (iv) Coordination of cyber incident response activities (v) Issue guidelines, advisories, vulnerability notes and whitepapers relating to information security practices, procedures, prevention, response and reporting of cyber incidents.
5. **Common Service Centres (CSCs)** [[www.csc.gov.in](http://www.csc.gov.in)]- CSCs are the access points for delivery of essential public utility services, social welfare schemes, healthcare, financial, education and agriculture services, apart from host of B2C (Business to Customer) services to citizens in rural and remote areas of the country.
6. **Cyber Swachhta Kendra** [[www.cyberswachhtakendra.gov.in](http://www.cyberswachhtakendra.gov.in)]- It is a Botnet Cleaning and Malware Analysis Centre. This centre is set up in accordance with the objectives of the 'National Cyber Security Policy', which envisages creating a secure cyber ecosystem in the country.
7. **Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)** [[www.ddugjy.in](http://www.ddugjy.in)]- DDUGJY is designed to provide continuous power supply to the entire rural India. The DDUGJY can benefit rural households significantly as electricity is extremely vital for growth and development of the country.
8. **DigiLocker** [[www.digisevak.gov.in](http://www.digisevak.gov.in)]- DigiLocker is a Digital Wallet to empower citizens digitally. It is a secure cloud-based platform for issuance, sharing and verification of critical lifelong documents or certificates. It has created a new paradigm for true paperless governance by promoting usage of digital documents. Such documents are issued by the several departments, as- Transport Department, Income Tax Department, Revenue Department, State & Central Education Boards, etc.

9. **DigiSevak- Volunteer Management System (VMS)** [[www.digisevak.gov.in](http://www.digisevak.gov.in)]- It is an online volunteering platform for interested citizens who want to contribute to the success of Digital India programme. The platform provides means for end-to-end execution of a volunteering task, right from registration of volunteers to creation of tasks, evaluation of tasks, rewards and recognition of contribution by volunteers.
10. **Digital Saksharta Abhiyaan (DISHA)** [[www.ndlm.in](http://www.ndlm.in)]- DISHA or National Digital Literacy Mission (NDLM) Scheme has been formulated to impart IT training to Anganwadi, ASHA Workers and authorised ration dealers in all the States/UTs across the country. The initiative aims at training non-IT literate citizens to become IT literate to enable their active and effective participation in the democratic, developmental process, and enhance their livelihood too.
11. **Digitize India Platform (DIP)** [[www.digitizeindia.gov.in](http://www.digitizeindia.gov.in)]- The aim of DIP is to provide digitization services for scanned document images or physical documents for any organization. This program expects to digitize and make usable all the existing content in different formats and media, languages, digitize and create data extracts for document management, IT applications and records management.
12. **Direct Benefit Transfer (DBT)** [[dbtbharat.gov.in](http://dbtbharat.gov.in)]- DBT was initiated with the aim to reform government delivery system by re-engineering the existing process in welfare schemes for simpler and faster flow of information/funds and to ensure accurate targeting of the beneficiaries, de-duplication and reduction of fraud. DBT will bring efficiency, effectiveness, transparency and accountability in the Government system and infuse confidence of citizen in the governance. Use of modern technology and IT tools will realize the dream of 'Maximum Governance Minimum Government'.
13. **E-Basta** [[www.ebasta.in](http://www.ebasta.in)]- This project has created a framework to make school books accessible in digital form as e-books to be read and used on tablets and laptops. The main idea is to bring various publishers and schools together on one platform.
14. **Electronic Development Fund (EDF)** [[www.edfindia-canbankventure.com](http://www.edfindia-canbankventure.com)]- Electronics System Design and Manufacturing is the Governments agenda as part of the 'Digital India Programme'. The Electronic Development Fund is set up as a "Fund of Funds" to participate in professionally managed other Funds which in turn will provide risk capital to companies developing new technologies and research and development in the area of electronics, nano-electronics and Information Technology.
15. **E-Signature** [[www.cca.gov.in](http://www.cca.gov.in)]- It is an online electronic signature service which can be integrated with service delivery applications via an open API to facilitate an Aadhaar holder to digitally sign a document. Using authentication of the Aadhaar holder through Aadhaar e-KYC service, online electronic signature service is facilitated.

- 16. Earth System Science Organization (ESSO)- Indian National Center For Ocean Information Services (INCOIS)** [[www.incois.gov.in](http://www.incois.gov.in)]- This project was established as an autonomous body under the Ministry of Earth Sciences (MoES). It is mandated to provide the best possible ocean information and advisory services to society, industry, government agencies and the scientific community through sustained ocean observations and constant improvements through systematic and focussed research.
- 17. E-Trade** [[etrade.gov.in](http://etrade.gov.in)]- The purpose of this is to facilitate foreign trade in India by way of promoting effective and efficient delivery of services by various regulatory/facilitating agencies involved in foreign trade
- 18. Garv Grameen Vidyutikaran Mobile App** [[garv.ddugjy.in](http://garv.ddugjy.in)]- The mobile application provides real-time updated data of ongoing electrification process to all users/stakeholders and provides information about Government schemes and electrification data.
- 19. Government E-Marketplace (GeM)** [[www.gem.gov.in](http://www.gem.gov.in)]- GeM is a single window solution for online procurement of common use Goods and Services required by various Government Departments / Organizations / PSUs. It aims to enhance transparency, efficiency and speed in public procurement. The portal offers online registration facilities for all stakeholders namely Government Users, Product Sellers and Service Providers.
- 20. Heritage City Development and Augmentation Yojana (HRIDAY)** [[www.hridayindia.in](http://www.hridayindia.in)]- The Ministry of Urban Development, Government of India, launched the National Heritage City Development and Augmentation Yojana with a focus on holistic development of heritage cities. The scheme aims to preserve and revitalise soul of the heritage city to reflect the city's unique character.
- 21. Integrated Health Information System (IHIP)** [[www.nhp.gov.in](http://www.nhp.gov.in)]- The objective of IHIP is to enable the creation of standards compliant Electronic Health Records (EHRs) of the citizens on a pan-India basis along with the integration and interoperability of the EHRs through a comprehensive Health Information Exchange (HIE) as part of this centralized accessible platform.
- 22. Indian Railway Catering and Tourism Corporation (IRCTC)** [[www.irctc.co.in](http://www.irctc.co.in)]- To make the rail ticketing application more user-friendly and faster, IRCTC Connect was developed. The new app with several add-on features is based on the next generation e-ticketing system.
- 23. Jeevan Pramaan** [[www.jeevanpramaan.gov.in](http://www.jeevanpramaan.gov.in)]- Jeevan Pramaan is a biometric enabled digital service for pensioners of Central Government, State Government or any other Government organization. This service aims to streamline the process of issuing life certificate and make it a hassle-free experience for the pensioners.

24. **Meghraj** [cloud.gov.in]- The Government of India has embarked upon an ambitious initiative- "GI Cloud" which has been named as 'MeghRaj'. The focus of this initiative is to accelerate delivery of e-services in the country while optimizing ICT spending of the Government. This will ensure optimum utilization of the infrastructure and speed up the development and deployment of e-Government applications.
25. **Mobile Seva App Store** [www.apps.mgov.gov.in]- A mobile applications store (m-AppStore) has been created to facilitate the process of development and deployment of suitable mobile applications for delivery of public services through mobile devices. The m-AppStore store is integrated with the Mobiles Service Delivery Gateway (MSDG) and it shall use the MSDG infrastructure for deployment of such applications.
26. **National Super Computing Mission (NSM)** [www.nsmindia.in]- NSM has been envisaged to empower the national academic and Research and Development institutions, spread across the country, by installing a vast supercomputing grid comprising of more than 70 high-performance computing facilities. These supercomputers will also be networked on the National Supercomputing grid over the National Knowledge Network (NKN).
27. **Open Government Data (OGD)** [www.data.gov.in]- OGD is a platform for supporting Open Data initiative and intended to be used by Government of India Ministries/ Departments their organizations to publish datasets, documents, services, tools and applications collected by them for public use. It intends to increase transparency in the functioning of Government and also open avenues for many more innovative uses of Government Data to give different perspective.
28. **Rapid Assessment System (RAS)** [www.ras.gov.in]- Ministry of Electronics and Information Technology (MEIT), has developed a Rapid Assessment System for continuous feedback for e-services delivered by Government of India and State Governments. This system has multiple channels for receiving feedback and is backed by analytics. These analytics will help integrated departments for continuous system improvement and better governance.
29. **Single Window Interface for Trade (SWIFT)** [www.icegate.gov.in]- As part of the "Ease of Doing Business" initiatives, the Central Board of Excise and Customs, GoI has taken up implementation of the Single Window Project to facilitate the Trading Across Borders in India. The 'India Customs Single Window' would allow importers and exporters, the facility to lodge their clearance documents online at a single point only. Required permissions, if any, from other regulatory agencies would be obtained online without the trader having to approach these agencies. The Single Window Interface for Trade would reduce interface with Governmental agencies.



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## 12.5 DIGITAL INDIA INITIATIVES- AS SERVICES

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1. **Accessible India Campaign and Mobile App** [[www.accessibleindia.gov.in](http://www.accessibleindia.gov.in)]- Sugamya Bharat Abhiyaan or Accessible India Campaign is a nation-wide flagship campaign for achieving universal accessibility that enables people with disabilities to gain access for equal opportunity, live independently and participate fully in all aspects of life in an inclusive society. The campaign targets at enhancing the accessibility of built environment, transport system and Information and communication ecosystem. The mobile application is a crowd sourcing platform to comprehensively obtain information on inaccessible places across the country. The mobile application is available on IOS, Android and Windows platform and can be downloaded from the respective App Stores.
2. **Agrimarket App** [[www.mkisan.gov.in](http://www.mkisan.gov.in)]- The mobile application has been developed with an aim to keep farmers abreast with the crop prices and discourage them to carry-out distress sale. Farmers can get information related to prices of crops in markets within 50km of their own device location using the AgriMarket Mobile App. This app automatically captures the location of the farmers using mobile GPS and fetches the market prices of crops which fall within the range of 50km. The prices of agri commodities are sourced from the Agmarknet portal. Currently, the apps are available in English and Hindi languages.
3. **Beti Bachao Beti Padhao** [[wcd.nic.in](http://wcd.nic.in)]- The campaign aims at ensuring girls are born, nurtured and educated without discrimination to become empowered citizens of this country. The campaign interlinks National, State and District level interventions with community level action in 100 districts, bringing together different stakeholders for accelerated impact. The initiatives YouTube channel show various videos related to the campaign.
4. **Bharat Interface For Money (BHIM)** [[www.bhimupi.org.in](http://www.bhimupi.org.in)]- BHIM is an app that makes payment transactions simple, easy and quick using Unified Payments Interface (UPI). It enables direct bank to bank payments instantly and collect money using a Mobile number or Payment address. Bharat Interface for Money app is currently available on Android and it is downloadable from Google Play store, for smart phones.
5. **Crime and Criminal Tracking Network and Systems (CCTNS)** [[www.ncrb.gov.in](http://www.ncrb.gov.in)]- CCTNS aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing through adopting of principle of e-Governance and creation of a nationwide networking infrastructure for evolution of IT-enabled-state-of-the-art tracking system around 'Investigation of crime and detection of criminals'.

6. **Crop Insurance Mobile App** [mkisan.gov.in]- This app can be used to calculate the insurance premium for notified crops based on area, coverage amount and loan amount in case of loanee farmer.
7. **Digital All India Institute of Medical Sciences (AIIMS)** [ehospital.nic.in]- The aim behind Digital AIIMS project is to create an effective linkage between AIIMS, Unique Identification Authority of India (UIDAI) and the Ministry of Electronics and Information Technology (MeiTY). A unique health identification number for every patient visiting AIIMS was generated on an Aadhar platform. The Unique Health Identification Number gave every Patient visiting AIIMS a Digital Identity.
8. **E-Granthalaya** [www.egranthalaya.nic.in]- E-Granthalaya is an Integrated Library Management Software. The application is useful for automation of in-house activities of libraries and to provide various online member services. The software provides built-in web based Online Public Access Catalogue interface to publish the library catalogue over Internet.
9. **E-Panchayat** [www.epanchayat.in]- E-Panchayat is an e-Governance initiative for the rural sector providing comprehensive software solution attempting automation of Gram Panchayat functions. It is a platform for panchayat representatives to connect with rest of the world, which aims to bring out the local voices by empowering the local communities to showcase and share local social, cultural and economic practices, stories and challenges.
10. **Electronic Business (e-Biz)** [services.dipp.gov.in]- The focus of eBiz is to improve the business environment in the country by enabling fast and efficient access to Government-to-Business (G2B) services through an online portal. It is implemented under the guidance and aegis of Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce & Industry, Government of India.
11. **ECI EVM Tracking** [www.apps.mgov.gov.in]- It is a GPRS based mobile application for Election commission of India (ECI) Officials to scan barcode on Electronic Voting Machine (EVM), which is used in Polls.
12. **E-District** [edistrict.gov.in]- It is a Mission Mode Project to strengthen the district administration of the States by providing ICT support to the participating departments and district administration in terms of providing centralized software application for selected category of citizen services and training.
13. **E-Greetings** [egreetings.gov.in]- This project aims to promote a contemporary and eco-friendly method of sharing greetings by Government officials and agencies as well as citizens to colleagues and friends for National Holidays and other national occasions. The portal allows users to select and send greetings from multiple occasion-specific templates.

Government Departments can also customize the greetings by adding tag-lines and messages related to their programmes and schemes.

14. **E-Hospital** [ehospital.nic.i]- The e-Hospital application is a Hospital Management Information System (HMIS) for internal workflows and processes of hospitals. This one-stop solution helps in connecting patients, hospitals and doctors on a single digital platform. e-Hospital is made available to Central Government/ State Government/ Autonomous/ Cooperative hospitals on cloud through SaaS (Software as a Service) model.
15. **E-National Agriculture Market (e-NAM)** [www.enam.gov.in]- E-NAM is a pan-India electronic trading portal which networks the existing APMC (Agriculture Produce Marketing Committee) mandis to create a unified national market for agricultural commodities.
16. **E-Office** [www.eoffice.gov.in]- The e-office product aims to support governance by ushering in more effective and transparent inter and intra-government processes. The vision of e-Office is to achieve a simplified, responsive, effective and transparent working of all government offices.
17. **E-Pathshala** [www.epathshala.nic.in]- E-Pathshala showcases and disseminates all educational e-resources including textbooks, audio, video, periodicals and a variety of other print and non-print materials through website and mobile app. All the concerning people, such as- students, teachers, educators and parents can access e-books through multiple technology platforms i.e. mobile phones, tablets and on web through laptops and desktops.
18. **Employees Provident Funds Organisation (EPFO) Web Portal & Mobile App** [www.epfindia.gov.in]- The web portal for Employees' Provident Funds Organisation allows employees to check their EPF balance through an e-Passbook. EPF pensioners have been given the facility to access their pension disbursement details through this mobile app. The mobile app allows the members to activate their Universal Account Number (UAN) from the comfort of their mobile phones and can also access their accounts for viewing their monthly credits through the passbook.
19. **E-Prison** [www.eprisons.nic.in]- The scope of this project is to computerize and integrate all the activities related to prison and prisoner management in the jail.
20. **E-Procurement Portal (CPP)** [www.eprocure.gov.in]- The Central Public Procurement portal of the Government of India facilitates all the Central Government organizations to publish their Tender Enquiries, Corrigendum and Award of Contract details.
21. **E-Sampark** [www.sampark.gov.in]- The e-Sampark is a mechanism to connect the government directly with citizens across India by running mailer, outbound dialing and SMS campaigns. The platform is used for sharing informational and public service

messages. The multi-faceted platform facilitates not only seamless communication between the government and citizens, but also maintains a database of contacts of the nodal officers, representatives and citizens.

- 22. Electronic Transaction Aggregation and Analysis Layer (E-TAAL)** [[www.etaal.gov.in](http://www.etaal.gov.in)]- The e-TAAL is a web portal for dissemination of e-transactions statistics of the National and the State level e-governance projects including Mission Mode Projects. It receives transaction statistics from web-based applications periodically on near real time basis.
- 23. E-VISA** [[www.indianvisaonline.gov.in](http://www.indianvisaonline.gov.in)]- The e-tourist visa enables the prospective visitor to apply for an Indian Visa from his/her home country online without visiting the Indian Mission and also pay the visa fee online. The Ministry of Tourism supported the initiative regarding the implementation of Tourist Visa on Arrival enabled with Electronic Travel Authorisation (ETA) (renamed as e-Tourist Visa).
- 24. Farmer Portal** [[www.farmer.gov.in](http://www.farmer.gov.in)]- This portal is envisaged to make available relevant information and services to the farming community. Farmers' Portal is an endeavour in this direction to create one-stop-shop for meeting all informational needs relating to Agriculture, Animal Husbandry and Fisheries sectors production, sale/storage of an Indian farmer.
- 25. Fertiliser Monitoring System (FMS)** [[www.urvarak.co.in](http://www.urvarak.co.in)]- The FMS software monitors movement of various fertilisers at various stages in their value chain. The website provides information on fertiliser companies dealing with these fertilisers, the rate of concession on each fertiliser, its MRPs and product wise / state wise details of despatch and receipts of fertilisers at different destinations across the country.
- 26. Geographic Information System (GIS)** [[www.ncog.gov.in](http://www.ncog.gov.in)]- The GIS Software is designed to store, retrieve, manage, display and analyze different types of geographic and spatial data, which allows users to produce maps and other graphic displays of geographic information for analysis and presentation and thus serves as a valuable tool to visualize spatial data and/or to build decision support systems for further use in any organization or research bodies.
- 27. Geological Survey of India (GSI)** [[www.gsi.gov.in](http://www.gsi.gov.in)]- This portal provides a single window access to the information and services being provided by the GSI for the broad geoscientific community, citizens and other stakeholders. An attempt has been made through this portal to provide comprehensive, accurate, reliable and single point source of information about GSI, its activities, achievements, geoscientific information and its various facets.

- 28. Goods and Service Tax Network (GSTN)** [[www.gstn.org](http://www.gstn.org)]- It is unique as it seeks, for the first time to establish a uniform interface for the tax payer and a common and shared IT infrastructure between the Centre and States. The portal envisions becoming a trusted National Information Utility (NIU) which provides reliable, efficient and robust IT Backbone for the smooth functioning of the Goods & Services Tax.
- 29. Khoya Paya** [[khoyapaya.gov.in](http://khoyapaya.gov.in)]- The Khoya Paya portal is a citizen-based website to exchange information on missing and found children. The website is an enabling platform, where citizens can report missing children, as well as sightings of their whereabouts without wasting much time. The 'Found' children can also be reported on this web portal. The reporting can be done through text, photographs, videos and other means of transmitting and uploading information to the site.
- 30. Kisan Suvidha** [[www.kisaansuvidha.com](http://www.kisaansuvidha.com)]- Kisan Suvidha is an omnibus mobile app developed to help farmers get relevant information instantly. The app provides information on various details such as weather, market prices, seeds, fertilizers, pesticides, agriculture machinery, dealers, agro advisories, plant protection and IPM practices etc.
- 31. Knowledge Management System (KMS)** [[www.kms.negd.in](http://www.kms.negd.in)]- Digital India Program envisions to 'Transform India into a Digitally Empowered Society and Knowledge Economy'. To spearhead this vision, Knowledge Management Portal has been created to establish a culture where knowledge is captured, shared, created and reused. It provides a platform to leverage the transformation of data to knowledge by systematically aligning with the organizational goals and strategy.
- 32. Learning Management System (LMS)** [[www.lms.negd.in](http://www.lms.negd.in)]- The LMS is a software application for the administration, documentation, tracking, reporting and delivery of electronic courses (e-learning) and training programs. As a capacity building tool, LMS facilitates efficient administration of e-learning and training for various government officials both at centre and states/union territories.
- 33. MADAD APP** [[www.madad.gov.in](http://www.madad.gov.in)]- It has been set-up for Indian citizens to log and track Grievances pertaining to the Consular Services offered by the Indian Embassies (Missions/Posts) abroad.
- 34. M-Asset** [[www.assetdirectory.gov.in](http://www.assetdirectory.gov.in)]- mAsset is a mobile based tool that act as a supplement application to capture details, such as photo and Geo-coordinates of the Assets into National Asset Directory (NAD). Additionally, this application is also used to capture the details of Asset (Category, sub-category, name of the Asset, Photo & Geo-coordinates) which are not available in the NAD application. NAD is one of the applications developed under Panchayat Enterprise Suite under e-Panchayat Mission Mode Project.

35. **Ministry of Corporate Affairs (MCA 21)** [[www.mca.gov.in](http://www.mca.gov.in)]- This project enables easy and secure access to MCA services in an assisted manner for corporate entities, professionals, and general public. It is designed to fully automate all processes related to enforcement and compliance of the legal requirements under the Companies Act, 1956.
36. **M-Cessation** [[www.nhp.gov.in](http://www.nhp.gov.in)]- Ministry of Health & Family Welfare, in partnership with World Health Organisation and the International Telecommunications Union, has started an initiative for utilising mobile technology for tobacco cessation.
37. **M-Kavach** [[www.cdac.in](http://www.cdac.in)]- m-Kavach is a comprehensive mobile device security solution with an emphasis and approach on protecting mobile device resources rather than scanning for malwares signatures. The major threats on mobile devices can be broadly categorized into data compromise, malicious applications, physical thefts and mis-utilization of hardware resources. M-Kavach is designed to provide protection against the above-mentioned threats, through its features such as Secure Storage, Application Manager, Anti-Theft, Call/SMS filter and authorized access to device resources like WiFi, Bluetooth and Camera.
38. **Mother and Child Tracking System (MCTS)** [[nrhm-mcts.nic.in](http://nrhm-mcts.nic.in)]- The MCTS is an initiative of Ministry of Health & Family Welfare to leverage information technology for ensuring delivery of full spectrum of healthcare and immunization services to pregnant women and children up to 5 years of age. It facilitates and monitors service delivery and also establishes a two-way communication between the service providers and beneficiaries.
39. **M-Raktkosh** [[www.eraktkosh.in](http://www.eraktkosh.in)]- It interconnects all the Blood Banks of the State into a single network. The Integrated Blood Bank MIS refers the acquisition, validation, storage and circulation of various live data and information electronically regarding blood donation and transfusion service.
40. **National Career Service (NCS) Portal** [[www.ncs.gov.in](http://www.ncs.gov.in)]- Primarily it connects opportunities with the aspirations of the youth. This portal facilitates registration of job seekers, job providers, skill providers, career counsellors, etc.
41. **National Knowledge Network (NKN)** [[www.nkn.gov.in](http://www.nkn.gov.in)]- NKN project is aimed at establishing a strong and robust Indian network which will be capable of providing secure and reliable connectivity. In India, NKN with its multi-gigabit capability aims to connect all universities, research institutions, libraries, laboratories, healthcare and agricultural institutions across the country to address the knowledge need.
42. **National Scholarship Portal (NSP)** [[www.scholarships.gov.in](http://www.scholarships.gov.in)]- It is a one-stop solution for end-to-end scholarship process right from the submission of student application,

verification, sanction and disbursement to end beneficiary for all the scholarships provided by the Government of India.

43. **National Ujala Dashboard** [[www.ujala.gov.in](http://www.ujala.gov.in)]- UJALA scheme aims to promote efficient use of energy at the residential level; enhance the awareness of consumers about the efficacy of using energy efficient appliances and aggregating demand to reduce the high initial costs thus facilitating higher uptake of LED lights by residential users.
44. **National Voters Service Portal (NVSP)** [[www.nvsp.in](http://www.nvsp.in)]- Through NVSP, a user can avail and access various services such as access the electoral list, apply for voter id card, apply online for corrections in voter's card, view details of Polling booth, Assembly Constituency and Parliamentary constituency, and get the contact details of Booth Level officer, Electoral Registration Officer, among other services.
45. **NIKSHAY** [[nikshay.gov.in](http://nikshay.gov.in)]- To monitor Revised National Tuberculosis Programme (RNTCP) effectively, a web enabled and case-based monitoring application called NIKSHAY has been developed. This is used by health functionaries at various levels across the country in association with Central TB Division (CTD), Ministry of Health & Family Welfare. NIKSHAY covers various aspects of controlling TB using technological innovations. Apart from web-based technology, SMS services have been used effectively for communication with patients and monitoring the programme on day-to-day basis.
46. **Nirbhaya App-**  
[<https://play.google.com/store/apps/details?id=com.smartcloud.nirbhaya&hl=en>]  
Nirbhaya: Be Fearless© is an android emergency application, which can send a distress call or emergency message to a specified contact or group in an emergency situation faced by a woman or any other individual in general.
47. **Online Labs (OLABs)** [[www.olabs.edu.in](http://www.olabs.edu.in)]- Online Labs for school lab experiments provides students with the ease and convenience of conducting experiments over the internet. It has been developed to supplement the traditional physical labs and bridge the constraints of time and geographical distances.
48. **Parivahan Portal** [[www.parivahan.gov.in](http://www.parivahan.gov.in)]- It aims to improve the quality-of-service delivery to the citizen and the quality of work environment of the Regional Transport Office (RTOs). Its mission has been to automate all Vehicle Registration and Driving License related activities in transport authorities of country with introduction of smart card technology to handle issues like inter-state transport vehicle movement and to create state and national level registers of vehicles/DL information. The latest initiative has been to centralize both applications- VAHAN and SARATHI, for ensuring higher transparency, security and reliability of operations through a countrywide unified database and provision of a highly citizen and trade centric web enabled environment.

49. **Passport Seva Project (PSP)** [[www.passportindia.gov.in](http://www.passportindia.gov.in)]- The Passport Seva enables simple, efficient and transparent processes for delivery of passport and related services. The Passport Seva Project is transforming passport and related services in India to provide a best-in-class experience to Indian citizens.
50. **Project Management and Information System (PMIS)** [[www.pmis.negd.gov.in](http://www.pmis.negd.gov.in)]- The PMIS is a web-based, centralized tool for monitoring and evaluation of the physical, financial and outcome parameters of the Mission Mode Projects under e-Kranti framework of Digital India program and other such e-Governance projects.
51. **Project Monitoring Website For E-Courts** [[www.ecourts.nic.in](http://www.ecourts.nic.in)]- The objective of the project was to help judicial administrations of the courts in streamlining their day-to-day activities.
52. **Public Financial Management System (PFMS)** [[www.pfms.nic.in](http://www.pfms.nic.in)]- PFMS started during 2009 with the objective of tracking funds released under all Plan schemes of Government of India, and real time reporting of expenditure at all levels of Programme implementation. Subsequently, the scope was enlarged to cover direct payment to beneficiaries under all Schemes.
53. **Saransh** [[www.saransh.nic.in](http://www.saransh.nic.in)]- Saransh is a tool for comprehensive self-review and analysis for CBSE affiliated schools and parents. It enables them to analyze students' performance in order to take remedial measures.
54. **Shaala Darpan** [[www.darpan.kvs.gov.in](http://www.darpan.kvs.gov.in)]- It is an e-Governance platform for all Kendriya Vidyalayas in the country. It aims to improve quality of learning, efficiency of school administration, governance of schools and service delivery to key stakeholders namely, students, parents, teachers, community and schools.
55. **Shaala Siddhi** [[www.shaalasiddhi.nuepa.org](http://www.shaalasiddhi.nuepa.org)]- The National Programme on School Standards and Evaluation (NPSSE), known as Shaala Sidhdhi is a comprehensive instrument for school evaluation leading to school improvement. Developed by the National University of Educational Planning and Administration (NUEPA), it aims to enable schools to evaluate their performance in a more focused and strategic manner and facilitate them to make professional judgments for improvement.
56. **Sms-Based Mid-Day Meal Monitoring Scheme** [[www.mdm.nic.in](http://www.mdm.nic.in)]- Mid-Day Meal mobile app is meant for effective monitoring of daily and monthly mid-day meal data to be sent by the schools. The app provides additional data communicating mechanism for the MDM in-charge/teacher who has to send the daily/monthly data using SMS. The app, once installed on android device, does not need Internet to send MDM figures as user has option to send the figure through SMS from the app. This simplifies the job of MDM in-charge, who even does not have to remember the SMS formats. The higher authorities at



Block, District and State level have a very simple and effective mechanism in shape of this app on their mobile devices for effective and efficient monitoring of daily as well as monthly data transmission by all the MDM in-charge falling under their jurisdiction.

57. **Soil Health Card** [[www.soilhealth.dac.gov.in](http://www.soilhealth.dac.gov.in)]- It aims at promoting Integrated Nutrient Management (INM) through judicious use of chemical fertilisers including secondary and micro nutrients in conjunction with organic manures and bio-fertilisers for improving soil health and its productivity.
58. **Startup India Portal and Mobile App** [[www.startupindia.gov.in](http://www.startupindia.gov.in)]- It is intended to build a strong eco-system for nurturing innovation and Start-ups in the country that will drive sustainable economic growth and generate large scale employment opportunities.
59. **Sugamaya Pustakalya** [[www.library.daisyindia.org](http://www.library.daisyindia.org)]- "Sugamaya Pustakalaya" is an online platform that makes accessible content available to print-disabled people. The library houses publications across diverse subjects and languages and multiple accessible formats.
60. **Swachh Bharat App** [[www.swachhbharat.mygov.in](http://www.swachhbharat.mygov.in)]- The Swachhta Abhiyan has turned into a National Movement with citizens now becoming active participants in cleanliness activities across the nation.
61. **SWAYAM** [[www.swayam.gov.in](http://www.swayam.gov.in)]- SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy. It is a Massive Open Online Courses (MOOC) platform designed and supported by the Government of India.
62. **UDAAN** [[www.nsdcudaan.com](http://www.nsdcudaan.com)]- Udaan is a special initiative to address the needs of the educated unemployed in Jammu and Kashmir (J&K). It is focused on youth of the state, who are graduate, post graduate and three-year diploma engineers. The programme is designed to encourage corporates to travel to J&K meet with the youth and hire aspiring youth in J&K who wish to explore the opportunity to work with corporates.
63. **Unified Mobile Application for New-Age Governance (UMANG)** [[www.umang.gov.in](http://www.umang.gov.in)]- UMANG is one of the key initiatives under the Digital India program to develop a common, unified platform and mobile app to facilitate a single point of access to all government services.
64. **Un-Reserved Ticket Through Mobile Application (UTS APP)** [[www.utsnmobile.indianrail.gov.in](http://www.utsnmobile.indianrail.gov.in)]- In order to promote paperless economy, Indian Railways has launched its new UTS on mobile application. This official android mobile ticketing app enables booking unreserved paperless journey ticket, issue/renew season ticket and platform ticket.

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## 12.6 DIGITAL INDIA INITIATIVES- AS EMPOWERMENT

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1. **Aadhaar Enabled Payment System (AEPS)** [[www.npci.org.in](http://www.npci.org.in)]- It is a payment service empowering a bank customer to use Aadhaar as his/her identity to access his/ her respective Aadhaar enabled bank account and perform basic banking transactions like balance enquiry, cash deposit, cash withdrawal, remittances through a Business Correspondent.
2. **BPO Scheme** [[www.ibps.stpi.in](http://www.ibps.stpi.in)]- The India BPO (Business Process Outsourcing) Promotion Scheme (IBPS) seeks to incentivize establishment of 48,300 seats in respect of BPO/ITES operations across the country. This would help in capacity building in smaller cities in terms of infrastructure and manpower and would become basis for next wave of IT/ITES led growth. This scheme has potential to create employment opportunities of around 1.5 lakh direct jobs considering three shift operations.
3. **Digidhan Abhiyaan** [[www.digidhan.mygov.in](http://www.digidhan.mygov.in)]- It aims to handhold users in downloading, installing and using various digital payment systems for carrying out digital transactions.
4. **MyGov** [[www.mygov.in](http://www.mygov.in)]- It is a unique first-of-its-kind participatory governance initiative involving the common citizen at large. The idea of MyGov brings the government closer to the common man by the use of online platform creating an interface for healthy exchange of ideas and views involving the common citizen and experts with the ultimate goal to contribute to the social and economic transformation of India.
5. **National Mission on Education Using ICT** [[www.nmeict.ac.in](http://www.nmeict.ac.in)]- The National Mission on Education through Information and Communication Technology (NMEICT) has been envisaged as a Centrally Sponsored Scheme to leverage the potential of ICT, in teaching and learning process for the benefit of all the learners in Higher Education Institutions in any time anywhere mode.
6. **North East BPO Promotion Scheme (NEBPS)** [[www.meity.gov.in/nebps](http://www.meity.gov.in/nebps)]- NEBPS has been approved under Digital India Programme, to incentivize BPO/ITES Operations in North East Region (NER) for creation of employment opportunities for the youths and growth of IT-ITES Industry. The objectives of NEBPS are as under: (i) Creation of employment opportunities for the local youth in NER, by promoting the IT/ITES Industry particularly by setting up the BPO/ITES operations. (ii) Promotion of investment in IT/ITES Sector in NER in order to expand the base of IT Industry and secure balanced regional growth.
7. **Nrega-Soft** [[www.nrega.net](http://www.nrega.net)]- It envisions implementing e-Governance across State, District and three tiers of Panchayati Raj Institutions.
8. **Openforge** [[www.openforge.gov.in](http://www.openforge.gov.in)]- It is the Government of India's platform for open collaborative development of e-governance applications. Through this platform, the

government wants to promote the use of open-source software and promote sharing and reuse of e-governance related source code.

9. **Pahal (DBTL)** [[www.petroleum.nic.in](http://www.petroleum.nic.in)]- The PAHAL (DBTL) aims to reduce diversion and eliminate duplicate or bogus LPG connections. Under the PaHaL scheme, LPG cylinders are sold at market rates and entitled consumers get the subsidy directly into their bank accounts. This is done either through an Aadhaar linkage or a bank account linkage.
10. **Paygov India** [[www.paygovindia.gov.in](http://www.paygovindia.gov.in)]- A National Payment Service platform has been envisaged for a common e-Governance infrastructure that will offer end-to-end transactional experience for a citizen which includes accessing various services through internet with payment gateway interface for online payments. Ministry of Electronics and Information Technology along with NSDL Database Management Ltd (NDML) created a common infrastructure that can be used by Center/States/Departments to offer various services through their National / State portals with a facility to make online payment using net banking, credit cards and debit cards.
11. **Pradhan Mantri Gramin Digital Saksharta Abhiyaan (PMGDISHA)** [[www.pmgdisha.in](http://www.pmgdisha.in)]- PMGDISHA aims to bridge the digital divide, specifically targeting the rural population including the marginalised sections of society like Scheduled Castes (SC) / Scheduled Tribes (ST), Minorities, Below Poverty Line (BPL), women and differently-abled persons and minorities.
12. **Pradhan Mantri Jan-Dhan Yojana (PMJDY)** [[www.pmjdy.gov.in](http://www.pmjdy.gov.in)]- PMJDY is a National Mission on Financial Inclusion encompassing an integrated approach to bring about comprehensive financial inclusion of all the households in the country. The plan envisages universal access to banking facilities at least one basic banking account in every household, financial literacy, access to credit, insurance and pension facility.
13. **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** [[www.pmkvyofficial.org](http://www.pmkvyofficial.org)]- PMKVY is the flagship scheme of Ministry of Skill Development and Entrepreneurship (MSDE). The objective of this Skill Certification Scheme is to enable a large number of Indian youths to take up industry-relevant skill training that will help them in securing a better livelihood.
14. **Smart Cities** [[www.smartcities.gov.in](http://www.smartcities.gov.in)]- Its objective is to promote sustainable and inclusive cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions. The focus is on sustainable and inclusive development and the idea is to look at compact areas, create a replicable model which will act like a lighthouse to other aspiring cities.
15. **Targeted Public Distribution System (TPDS)** [[www.dfpd.nic.in](http://www.dfpd.nic.in)]- Under the TPDS, the States were required to formulate and implement fool proof arrangements for identification of the poor for delivery of food grains and for its distribution in a transparent and accountable manner.

- 16. Visvesvaraya PhD Scheme for Electronics and IT** [[www.phd.medialabasia.in](http://www.phd.medialabasia.in)]- One of the key goals of the Visvesvaraya PhD Scheme is to encourage working professionals and non-PhD faculty members to pursue PhD in the ESDM & IT/ITES sectors as part-time candidates.

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## **12.7 CHALLENGES OF DIGITAL INDIA PROGRAMME**

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Following are the challenges in successful implementation of Digital India programme-

- High level of digital ill-literacy is the biggest challenge in the success of digital India programme. Low digital literacy is key hindrance in adaptation of technologies across the country.
- Awareness of Digital India scheme among common masses about its benefits is also a great challenge.
- A key component under Digital India mission is high speed of internet as a core utility to facilitate online delivery of various services; in ground situation the internet speed is very low.
- The biggest challenge faced by Digital India programme is slow and delayed infrastructure development. India's digital infrastructure is comprehensively inadequate to tackle growing increase in digital transactions.
- The private participation in government projects in India is poor because of long and complex regulatory processes.
- There is a wide digital divide between urban and rural India. This is one of the key challenges in the way of successful implementation of Digital India Programme.
- Fear of cybercrime and breach of privacy is another challenge in the way of Digital India Programme.

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## **12.8 POINTS TO REMEMBER**

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- Digital India programme with a vision to transform India into a digitally empowered society and knowledge economy.
- The national level e-governance programme called National e-Governance Plan (NeGP) was initiated in the year 2006.
- Digital India Week has been launched with an aim to impart knowledge to people and to empower themselves through the Digital India Programme of Government of India.
- The vision of Digital India programme is centred on the three key areas- (i) Digital Infrastructure as a Core Utility to Every Citizen (ii) Governance & Services on Demand, (iii) Digital Empowerment of Citizens.
- Digital India Initiatives are categorized into three key areas, as- Infrastructure, Services, and Empowerment.

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## **12.9 GLOSSARY**

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- NeGP- National e-Governance Plan.
- MMP- Mission Mode Projects.
- DeitY- Department of Electronics and Information Technology.
- NOFN- National Optical Fiber Network.
- CoE-IoT- Centre for Excellence- Internet of Things.
- CERT-IN- Computer Emergency Response Team- India.
- CSC- Common Service Centres.
- DDUGJY- Deen Dayal Upadhyaya Gram Jyoti Yojana.
- VMS- Volunteer Management System.
- DBT- Direct Benefit Transfer.
- EDF- Electronic Development Fund.
- ESSO- Earth System Science Organization.
- INCOIS- Indian National Center For Ocean Information Services
- MoES- Ministry of Earth Sciences.
- GeM- Government E-Marketplace.
- HRIDAY- Heritage City Development and Augmentation Yojana.
- IHIP- Integrated Health Information System.
- IRCTC- Indian Railway Catering and Tourism Corporation.
- NSM- National Super Computing Mission.
- NKN- National Knowledge Network.
- OGD- Open Government Data.
- RAS- Rapid Assessment System.
- MEIT- Ministry of Electronics and Information Technology.
- SWIFT- Single Window Interface for Trade
- BHIM- Bharat Interface For Money.
- CCTNS- Crime and Criminal Tracking Network and Systems.
- AIIMS- Digital All India Institute of Medical Sciences.
- e-NAM- E-National Agriculture Market.
- EPFO- Employees Provident Funds Organisation.
- E-TAAL- Electronic Transaction Aggregation and Analysis Layer.
- FMS- Fertiliser Monitoring System.
- GIS- Geographic Information System.
- GSI- Geological Survey of India.
- GSTN- Goods and Service Tax Network.
- KMS- Knowledge Management System
- LMS- Learning Management System.
- MCTS- Mother and Child Tracking System.

- NCS- National Career Service.
- NSP- National Scholarship Portal.
- NVSP- National Voters Service Portal.
- PMIS- Project Management and Information System.
- PFMS- Public Financial Management System.
- UMANG- Unified Mobile Application for New-Age Governance.
- NMEICT- National Mission on Education through Information and Communication Technology.
- PMJDY- Pradhan Mantri Jan-Dhan Yojana.
- PMKVY- Pradhan Mantri Kaushal Vikas Yojana.
- TPDS- Targeted Public Distribution System.

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## ***12.10 CHECK YOUR PROGRESS***

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### **Descriptive Type Questions-**

- a) What do you understand by Digital India programme? Explain its objectives.
- b) How e-governance can empower the citizens? Explain.
- c) Briefly define the digital India initiatives as infrastructure.
- d) List five digital India initiatives as services.
- e) Define the challenges of digital India programme.

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## ***12.11 BIBLIOGRAPHY/ REFERENCES***

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## ***12.12 SUGGESTED READINGS***

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- [www.digitalindia.gov.in](http://www.digitalindia.gov.in).
- Singh, A. K. and Maurya, S. (2017). A Review of Digital India Programme and Comparative Study of E-Governance Initiatives around World. Asian Journal of Research in Business Economics and Management. Vol. 7(8), pp. 1-15, ISSN 2249-7307.