



COURSE CODE: MAMCD 105

COURSE NAME: NEW MEDIA:  
EVOLUTIONS, PRINCIPLES AND  
THEORY

**CENTRE FOR DISTANCE AND  
ONLINE EDUCATION  
TEZPUR UNIVERSITY**

**MASTER OF ARTS**

**MASS COMMUNICATION  
AND JOURNALISM  
BLOCK II**



### **Vision**

**To grow to be a leading centre for human resource development through distance, open and universal learning system.**

### **Mission**

**To provide quality higher education at door step through barrier-less, flexible and open learning mode in conformity with national priority and societal need.**

### **Objective**

- **To offer degree, diploma, certificate level programme of study through distance learning in various emerging subjects across the disciplines.**
- **To offer job oriented and vocational programmes in flexible terms in the line of the national and regional level demand of manpower.**
- **To offer various programmes under lifelong learning contributing to the local and regional level requirements and as per the need of the society at large.**
- **To undertake various research and academic activities for furtherance of distance education in the region.**
- **To contribute to conserve and promote cultural heritage, literature, traditional knowledge and environment conducting short programmes, workshops, seminars and research in interdisciplinary field.**



# **MMC-105: NEW MEDIA:EVOLUTIONS, PRINCIPLES AND THEORY**

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Tezpur University, Assam.

# BLOCK II

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## COURSE INTRODUCTION

Advancement of Communication and Information Technologies (ICTs) have changed the scenario of mass communication with the emergence of new media as a medium of communication. After the growth of new media, terms like computer mediated communication, user generated communication, information society; media convergence, etc. have become popular within the discipline of Media and Communication studies. This course, New Media (MMC 301) has total two blocks which includes fourteen units.

The **Block I** is based on two modules Module I and Module II, which discuss new media technology and trends in new media respectively. From the **Module I**, you will know the evolution of internet technologies, overview of online communication and also will learn about the topics such as HTML, Internet Protocol, Broadband, Bandwidth. On the other hand, **Module II** focuses on trends in New media that include user generated as well as computer generated communication, convergence of media, Web 2.0, blogging, virtual community, etc. The Unit 4 of Module II discusses the topics such as identity formation in the virtual world, new media and digital divide, new media and democracy, etc.

**Block II** includes **Module III** and **Module IV**. Module III is about the topic of convergence and technology which explains the process of technological as well as digital convergence, implication of digital convergence in society. This Module also discusses the differences between traditional journalism and online journalism, concept of citizen journalism, online news writing and editing, etc. Unit 12 under Module IV discusses the uses of new media for educational purposes. For instance, educational platforms in the internet such as Massive Open Online Courses (MOOC) , ePathsala, Sodhganga, etc. have been promoting open education resources through providing open access to these platforms. Unit 13 and Unit 14 include new media and audience culture and new media and development respectively.



## **MODULE III: CONVERGENCE AND TECHNOLOGY**

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## UNIT 9: BASICS OF CONVERGENCE

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### UNIT STRUCTURE

- 9.1 Introduction
- 9.2 Objectives
- 9.3 Technological Convergence
- 9.4 Digital Convergence
- 9.5 Impact of Digital Convergence on Society
- 9.6 Convergence and Regulations in India
- 9.7 Summing Up
- 9.8 Questions
- 9.9 References and Recommended Readings

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### 9.1 INTRODUCTION

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Convergence of different technologies and media tools is an important characteristic of the new media era. In this unit we shall learn about the concepts of technological and digital convergence and how it impacts the society. We shall also examine the convergence regulations in India.

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### 9.2 OBJECTIVES

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The objectives of this unit are to:

- Discuss about technological and digital convergence.
- Describe the implications of convergence on the society.
- Explain about convergence and regulations of India.

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### 9.3 TECHNOLOGICAL CONVERGENCE

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In the simplest terms, convergence refers to the coming together of two (or more) separate entities to form a new one, featuring combined functionality of both (or more) within a single platform.

Convergence is the key today, at the dawn of the 21<sup>st</sup> century. **Technological convergence** is the integration of more than one technology that functions efficiently as a converged system. Technological convergence comprises of both technical design and functionality.

Technical design is about engineering the basic infrastructure required to transport digital content. Functionality on the other hand refers to ease with which a user can access the same content on different devices.

Convergence of industries, media, technology, societies, and cultures are being ushered in with the advancement of media and technology. As a trait of the society, convergence has begun to stimulate economic growth and change the way people communicate on a universal basis.

The Information and Communication Technologies (ICT) sectors are in a process of technological convergence, owing to the liberalization of the telecommunications markets and technological development. According to Grover and Vaswani (2000),

Technology convergence is expanding services in what were once traditionally separate industries. The industries of information technology, telecommunication, consumer electronics, and entertainment (ITTCE) are coming together into one industry because digitized content is making them more similar, blurring the lines between them, and causing unprecedented cross-overs. For example, a product like Microsoft's Xbox would have once been part of the information technology industry, but is now part of the entertainment industry. Another example is Sony's Vaio. Once it would have been considered a consumer electronic. Now, it is part of the information technology industry. (Vaswani, 2000).

The most well-known and common example of convergence is the smart-phone which brings together ICT, computer networks, and media within one platform allowing multi-functionality. The term "smart-phone" was coined by the Ericsson Company in 1997 for one of their phones, the GS88. Ericsson's R380 phone was marketed as the world's first smart-phone with an operating system (OS) called Symbian. (Woyke, 2014).

Technological convergence, if properly utilised, can be crucial for the economic and social growth of every nation. Government authorities can avail the opportunity to spur market development and meet various communication needs. Technological convergence can provide great

opportunities for the expansion of new services which are more convenient, efficient and consumer friendly.

#### **ASSESS YOUR PROGRESS**

1. What \_\_\_\_\_ is \_\_\_\_\_ technological convergence? \_\_\_\_\_  
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2. Give a few examples of technological convergence. \_\_\_\_\_  
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### **9.4 DIGITAL CONVERGENCE**

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Digitalization of information is an essential building block of convergence. Digitalised information can move more freely, but initial network and bandwidth constraints posed a challenge for the same.

Digital Convergence is the progression of digitalized services, applications, networks, and business models from distinguishable to more blended ones. Convergence is the outcome of the dynamic advancement of digital technology.

Simpson & Weiner (1989) define digital convergence as

the coming together of information content from voice telephony, sound broadcasting, television and print media; into a single application or service. With digital convergence, a new epoch of multimedia has been ushered in where in voice, images and data can be brought together to form a single network that renders more efficient and effective services to the users of information content. (Pavlick & McIntosh 2004).

Convergence makes possible the use and consumption of information communication technologies (ICTs) amongst all stakeholders whether it is businessmen, government or individuals. It facilitates creation of content, the accessibility of information from anywhere by a multitude of devices

and from a multitude of sources. It also enables communication, partnership, synchronization and inter-operability among audiences, services and applications through digital networks.

Nowadays, most content found in digital formats, which provides users a plethora of choices to pick from. For example, audio and visual content in MP3 and MPEG4 can be played either on a video player, TV or on a smart-phone (Anon 2004). The process of digitization is gradually changing the way content is created and distributed by media outlets and accessed by consumers. Instead of being distributed through traditional channels, digital content is now delivered via the internet, satellite and through an array of other digital technologies (Pavlick & McIntosh 2004). Such content is available at all times, with the creators updating their content constantly and reaching out to a worldwide audience.

#### **ASSESS YOUR PROGRESS**

1. What is understood by digital convergence?

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2. Analyse the functions of a smart-phone as a convergent medium.

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### **9.5 IMPACT OF DIGITAL CONVERGENCE ON SOCIETY**

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The dawn of the information age has ushered in the digitalization of society. The interface between digitalization and globalization of the world has brought in a convergence which impacts the technological and cultural aspects of the society. Human development and the prosperity of the community are vital objectives of this interaction between digitization, globalization and convergence. Let us discuss the ways in which digital convergence has changed the society

**Communication:** The mobile phone is the best example of technological and digital convergence, which has changed the ways of communication



amongst people. The smart-phone which is the product of convergence of various media and information technologies ensures instant communication with another person via calls, sms, messaging apps like WhatsApp and social media apps like Facebook and Twitter, thus communication a round-the clock-process at the click of simple buttons. Not simply the way people communicate with their friends and family, but digital convergence has even changed the way business and trade related communication take place. Most businesses cannot function without the use of internet and telephone connectivity. Apart from that, social media also have key roles to play in changing people's perspectives of other people and behaviour with different people. Maintaining one's 'social identity' is no longer understood to be the same as how it was understood before the advent and popularity of social media.

**Transportation:** The convergence of mobile technology, GPS and the internet has changed the way of people's mobility and transport. It is now a matter of seconds to book a vehicle of their choice like a taxi or cab, from wherever one is. GPS has enabled people to tag their own location, or use it to navigate their way across any place. One can even enjoy the privilege of not buying a car, as nowadays there are services which offer cars for rent, which are delivered and picked up from the user's doorstep.

**Education:** The field of education has also been penetrated by digital convergence. Classrooms are now adopting online teaching tools and methods for teaching. With online courses available, the teaching-learning experience is undergoing a revolutionary change.

**Social Development:** The digitalisation of technology and digital convergence has also enabled development to be a process where people themselves can be participants. From online banking, accessing government portals to participating in online forums for development, digital convergence has also transformed the way development is pursued.

**Entertainment:** One can now watch television shows, movies and much more on OTT platforms like HotStar, Netflix, Amazon etc., which they can access right from their phones. One can book film tickets, pay online and

access a wide range of entertainment options with a single click on their phones.

**Lifestyle:** Overall lifestyle changes amongst people are visible with the impact of digital convergence of media and technology. Digitalisation is transforming the way people live, work, relax, manage their money, trade and communicate with each other. The new technologies are changing the way people perceive others, cultures, and the world around them.

Convergence certainly offers many opportunities for the Information Society, contributing to economic development and social welfare in the general interest of citizens, companies and regions. In particular, new digital technologies can foster open technologies and markets, information plurality, freedom of choice, social inclusion, etc. At the end of the day, digital convergence, new technologies, can be a means to an end, an engine for social and economic growth.

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## **9.6 CONVERGENCE AND REGULATIONS IN INDIA**

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In present times, technological advancement has brought the internet, transmission and telephony into a single distribution platform. From a consumer's perspective, the personal computer can also be used as a telephone and to receive audio and video broadcasts. Similarly, the Web TV can be used to browse the Internet and send e-mails. With WAP the mobile phone has turned into an e-commerce tool. From business perspective, the resources and infrastructure available to meet the needs of one of the media can be used more effectively if applied to other media as well.

The 2001 bill on the convergence of communications was presented in Parliament to regulate convergence in India. Until then, the convergence sector was not being maintained and regulated by then existing legislation and jurisdictions. Thus, without the proper license, no one could provide any network service other than public service broadcasters.

With recommendations from different groups, the Indian government published its draft law on convergence of communications, in 2000 announcing the regulations on the convergence of digitization. It was

legislated on the basis of the US amendment to the 1996 telecommunications law and the 1998 Malaysia media law. India is the second country to adopt legislation on media convergence. The formation of the Communications Commission of India is the main feature of this amendment. The commission is regulated to work towards digital convergence, transmission, communication, maintenance of tariffs, regulation of market competition, licenses. This led to another legislative law called the Communication Convergence Bill (CCB).

The need for this legislation has been imposed on society because the existing laws regulating the areas of telecommunications and broadcasting had been considered insufficient to meet the needs of the present requirement. They had been framed when each of the media, such as telephones, radio and television, had evolved independently for a long time and was governed by several sets of laws.

The Convergence Laws Bill states:

One of the basic objectives of this Act is to provide for a regulatory mechanism, which facilitates convergence and therefore, remains valid over a period of time. Convergence in this context means convergence of mediums or technologies facilitating provision of all services by using a given facility or network and vice versa. It also means convergence of services at the provider's end as well as the consumer's end, meaning, thereby, a service provider should be able to provide a whole range of technologically feasible services and a consumer should be able to receive all services through a given terminal at any time and place of his choice. (CLB, 2001).

The legislations of Indian Telegraph act (1885) Indian Wireless Telegraphy act (1993) Cable Television Networks Act (1995), Telecom Regulatory Authority of India Act (1997) were proposed to be under the Bill i.e. Communication Convergence Act. The law would include rules in detail that would help to curb new problems of industries. The rules were proposed to be placed in the Parliament to be approved of by it with modifications.

There is separate license facility for internet, cell-phones and landlines regulated by telegraph Act 1885. Ministry of Information and Broadcasting are held responsible for radio and television broadcast by Telegraph Act of 1885. Convergence can lead to paradigm shift of amalgamation of all license system under one service. The Central Government contacts the international agencies.

Five laws viz. the Indian Telegraph Act, 1885, the Indian Wireless Telegraph Act, 1931, the Telegraph Wires (Unlawful Possession) Act, 1950, the Telecom Regulatory Authority of India Act, 1987, and the Cable Television Networks (Regulation) Act, 1995 are to be reset as the challenges and policies designed to address these challenges, do not represent the full scope of network convergence issues.

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## 9.7 SUMMING UP

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Convergence is the key today, at the dawn of the 21<sup>st</sup> century. **Technological convergence** is the integration of more than one technology that functions efficiently as a converged system. Technological convergence, if properly utilised, can be crucial for the economic and social growth of every nation. Digitalization of information is an essential building block of convergence. Digital Convergence is the progression of digitalized services, applications, networks, and business models from distinguishable to more blended ones. Convergence is the outcome of the dynamic advancement of digital technology. The dawn of the information age has ushered in the digitalization of society. The interface between digitalization and globalization of the world has brought in a convergence which impacts the technological and cultural aspects of the society. Human development and the prosperity of the community are vital objectives of this interaction between digitization, globalization and convergence.

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## 9.8 PROBABLE QUESTIONS

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1. What is convergence? Explain how technological and digital convergence has impacted the society.
2. Examine the convergence regulations in India.

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## 9.9 REFERENCES AND RECOMMENDED READINGS

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## **UNIT 10: ONLINE JOURNALISM**

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### **UNIT STRUCTURE**

- 10.1 Introduction
- 10.2 Objectives
- 10.3 Traditional vs. Online Journalism
- 10.4 Citizen Journalism
- 10.5 Selection and Presentation of Online News Content
- 10.6 Online News Writing & Editing
- 10.7 Summing Up
- 10.8 Questions
- 10.9 References and Recommended Readings

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### **10.1 INTRODUCTION**

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Development and popularity of new media technology in present times have led to the emergence of online or digital journalism- that is distribution or sharing of news and journalistic content via the internet, instead of print or electronic media. In this unit, we shall explore online journalism as a fast growing field of communication and learn about its various elements.

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### **10.2 OBJECTIVES**

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The objectives of this unit is to

- Define the characteristics of online journalism.
- Explain the differences between traditional and online journalism.
- Describe how to prepare and present online news content.

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### **10.3 TRADITIONAL v/s ONLINE JOURNALISM**

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Traditional journalism basically refers to the practice of news dissemination via traditional media like newspaper, radio and television- that is journalism that has been in practice before the emergence of digital media.

Fast growing digital technologies have come to significantly change the media scenarios around the world, redefining how news and information are gathered, distributed and consumed. The nature and practice of traditional journalism, along with the relationship between journalists and readers too have changed due to the emergence of new media technologies and online forms of journalism. Not only have exclusively web-based news portals emerged, but existing traditional news sources too have started to use the internet and social media to reach out to their readers and audiences.

One major point of difference between traditional and online journalism is, of course, the medium used for information dissemination. While traditional journalism disseminates information and news through print media like newspapers and magazines, and audio and visual media like radio and television, online journalism- as the name suggests, happens online, that is on various digital platforms that run with the help of the internet.

Another important point of difference between traditional and online journalism is the difference in the nature of the journalistic content. In traditional print media like newspapers and magazines, because of the limited space available, the length of the article or news report is also required to be limited. Similarly, in television and radio, the length of the news item is dependent of the amount of time-slot available. However, in online journalism, there is no such limit for space or time.

Again, the reach of both traditional and online journalism is different. While traditional media can be accessed physically only, online media requires one to have an effective internet connection to be accessed. In a way, both have its own advantages and disadvantages.

Traditional journalistic content also have more credibility than online ones. This is because of the reason that traditional journalistic platforms are limited in number and credibly more established in nature, while online journalism platforms are easier to launch and can be created by anyone.

However, when an established traditional media house uses the online media like social media pages and web portals to stay connected to their

online readers and audiences, it becomes easier for them to maintain credibility as well as reach out to a wider range of readers and audiences, and interact with them at the same time.

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#### 10.4 CITIZEN JOURNALISM

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Now, while traditional journalism is considered to be more mainstream and thus more credible, one cannot still deny the fact that it is a top-down approach of news dissemination- that is based on news **distribution** only. The rise of citizen journalism, on the other hand, is an indication of the shift from the concept of **distribution** to the concept of **circulation**.

According to Jenkins (2013),

**Distribution:** “[is] where the movement of media content is largely—or totally—controlled by the commercial interests producing and selling it. These logics of distribution best apply in a [mainstream media] world, where a small number of producers...create discrete and finished products for mass audiences”.

**Circulation:** “signals a movement toward a more participatory model of culture [i.e. citizen journalism], one which sees the public not as simply consumers of reconstructed messages but as people who are shaping, sharing, reframing, and remixing media content in ways which might not have been previously imagined”. (Jenkins, 2013).

The simplest definition of citizen journalism would be the practice of news reporting by non media-professional and ordinary citizens/members of the public using alternative (non-mainstream) forms of media like personal websites, blogs, social media etc. Citizen journalism is understood to be the reporting of facts and news that are usually ignored by mainstream media companies.

There are both advantages and disadvantages of citizen journalism. In the age of information boom, news outlets often fail to cover many important stories due to scarcity of time and resources. In such cases, citizen journalism allows more contributors to throw light upon a greater range of

information and perspectives on local, national, and international/global issues. Also, being independent of mainstream media control, citizen journalists have greater freedom of expression to report news from unconventional perspectives. However, as a point of disadvantage, news reported by citizen journalists may not always be accurate or authentic and also lack accountability.

### ASSESS YOUR PROGRESS

1. What are the differences between traditional and online journalism?

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2. Define and explain the concept of citizen journalism

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## 10.5 SELECTION AND PRESENTATION OF ONLINE NEWS CONTENT

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Do you remember the concept of **news value** that you had learnt in the introductory units about news and journalism? News values are general guiding principles which determine how much importance a media house gives to a particular news story. They explain why a story interests its audience; and how editors and other journalists decide that one piece of information is news while another is not. Basically news values are the deciding factors whether a piece of information is worthy of being a news or not.

All mainstream news outlets select their news stories based on news values like human interest, proximity, immediacy, novelty, impact, frequency, unexpectedness, negativity, positivity, meaningfulness etc.

In case of online news content, audience feedback plays an important role in the determination of news value. Lee and Tandoc (2017) states

The digitization of news has given rise to new forms of audience feedback. News websites now allow audiences to leave comments, which are also visible to other users, right next to news articles and videos. Individual readers also publish their opinions about news events and issues on their social media accounts; post comments on online discussion forums or use their personal blogs to engage in press criticism, questioning news accounts and calling out what they perceive as transgressions of how journalism ought to be (Lee and Tandoc, 2017).

Hermida (2011) explains how apart to verbal messages, journalists also receive several feedbacks to their stories aggregated by computer systems.

Web analytics programs monitor the real-time popularity of particular stories online. They automatically record a website visitor's location; time spent on the site, the website that referred the visitor, among other data, and then aggregate the information and presents it to journalists. Social media platforms such as Twitter and Facebook also provide lists of trending topics determined by algorithms tracking what people are posting and sharing, along with real-time data on a post's number of likes, comments, and shares. (Hermida, 2011).

Online news editors agree on the events, issues, or topics in which online audiences would be interested basing on 'trending' topics on social media. Topics that have garnered a lot of views in the past are given more coverage. As stories with photos and videos attract more views, editors prefer visual complements to the articles they post online. Social media users also provide photos and video footages of ongoing events, which are used by editors.

Together, these audience feedbacks amplify the influence of audiences in the process of news production, which breaks the notions of established mass communication theories, such as gate-keeping and agenda-setting.

Differences can also be found in the manner of presentation of online news content, from news presented in traditional formats. For example, the



language of online news content is more fluid and personal than the formal, structured language used in traditional news media.

Sensationalism and subjectivity are major characteristics of online news content. While it is upheld by traditional journalists that subjectivity in news should be avoided, it is also maintained that subjective elements like emotions, opinions and personalization are sometimes necessary in order to draw the attention of the public.

Click-bait headlines are the most popular element found in online news content. Click-bait headlines generally refer to attention grabbing headlines that lure readers into clicking on the link to increase their views. These news stories however may or may not be as suggested by the headline.

As explained by Klinger (2013),

social media news content follows the logic of ‘virality’. Virality is defined as “the process which gives any information item [...] the maximum exposure, relative to the potential audience, over a short duration, distributed by many nodes”. On social media, an item can quickly diffuse throughout a network if many users (nodes) share (distribute) the item – which is popularly called going viral. Whether news spreads fast and far is therefore not only determined by the size of a news outlet’s direct audience, but also by the likelihood that users share the news themselves. Thus the shareability of the news itself becomes an important news value (Nahon et.al., 2011).

### **ASSESS YOUR PROGRESS**

1. What is the role of audience feedback in online news content?

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2. What is meant by click-bait headline?

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## 10.6 ONLINE NEWS WRITING AND EDITING

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In the digital world, written information must take into account certain techniques and web-writing concepts. As explained by Bruno Rodrigues, the goal of online writing is to say more with less.

According to Rodrigues (2002), there are four basic principles for online writing:

**Persuasion:** Create interest mechanisms for the information that is being produced

**Objectivity:** Give users the aspects of information that readers want, without "dismissing" unnecessary details;

**Visibility:** Try to work with different "layers" in the website, giving out information little by little, but not creating a structure that is too deep.;

**Navigability:** Use the information as a directional resource in a website, helping the user to navigate through data and produce knowledge. (Rodrigues, 2002).

Here are a few tips to keep in mind while writing a news story for digital media:

### **Keep It Short**

People generally read slower from a computer or phone screen than on paper. So, online stories need to be kept shorter than newspaper stories. It is maintained that online content should have only half the words as its printed equivalent. So you should write short sentences and short paragraphs. Short paragraphs look less imposing on a web page.

## **Break It Up**

If you do have an article that's on the long side, don't try to cram it onto one web page. Break it up into several pages, using a clearly visible "continued on next page" link at the bottom.

## **Focus on SEO**

Unlike news-writing, writing for the web has to take into consideration search engine optimization (SEO). You put in the work to write a great article, and you want people to see it online—this means following SEO best practices.

Research and apply Google's content and technical guidelines for inclusion on the Google News page to ensure that your site's articles pop up with other reputable publications. Incorporate relevant keywords and link to other articles within your site as well.

## **Write in the Active Voice**

Remember the subject-verb-object model from newswriting? Use it for web writing as well. S-V-O sentences written in the active voice tend to be short, to the point, and clear.

## **Use the Inverted Pyramid**

Summarize the main point of your article right at the start, just as you would in the lede of a news story. Put the most important information in the top half of your article, the less important details in the bottom half.

## **Highlight Key Words**

Use boldface text to highlight especially important words and phrases. But use this sparingly; if you highlight too much text, nothing will stand out.

### **Use Bulleted and Numbered Lists**

This is another way of highlighting important information and breaking up chunks of text that may be getting too long. Bulleted and numbered lists can help you organize details in a story in a way that is easily digestible for readers.

### **Use Subheads**

This is key to the standard online journalism format. Subheads are another way to highlight points and break up text into user-friendly sections. Keep your subheads clear and informative so a reader can navigate the story or skim the page.

### **Use Hyperlinks Wisely**

Use hyperlinks to bring readers extra, contextual information to your story. Keep in mind that it's best to hyperlink internally (to another page within your own site), and that if you can summarize the information succinctly without linking elsewhere, do so.

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## **10.7 SUMMING UP**

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- Fast growing digital technologies have come to significantly change the media scenarios around the world, redefining how news and information are gathered, distributed and consumed.
- The nature and practice of traditional journalism, along with the relationship between journalists and readers too have changed due to the emergence of new media technologies and online forms of journalism- that is distribution or sharing of news and journalistic content via the internet, instead of print or electronic media.
- This also includes citizen journalism- that is the practice of news reporting by non media-professional and ordinary citizens/members of the public using alternative (non-mainstream) forms of media like personal websites, blogs, social media etc.

- In case of online news content, audience feedback plays an important role in the determination of news value. The digitization of news has given rise to new forms of audience feedback.
- Collectively, these new forms of audience feedback have amplified the influence of news audiences in news production, challenging the assumptions of established mass communication theories, such as gate-keeping and agenda-setting.
- Differences can also be found in the manner of presentation of online news content, from news presented in traditional formats.
- Sensationalism and subjectivity are major characteristics of online news content. While it is maintained by traditional journalism that subjectivity in the news should be used with caution, there has always been the conviction that subjective elements like emotions, opinions and personalization are necessary in order to draw the attention of the public.

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## 10.8 QUESTIONS

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1. Explain how online journalism is different from traditional journalism.
2. What is citizen journalism? Highlight the pros and cons of citizen journalism.
3. How are news items selected in online news media?

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## 10.9 REFERENCES AND RECOMMENDED READINGS

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## **UNIT 11: MOBILE TECHNOLOGY AND COMMUNICATION**

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### **UNIT STRUCTURE**

- 11.1 Introduction
- 11.2 Objectives
- 11.3 Mobile Phone: A Convergent Technology
- 11.4 Locative Media
- 11.5 Telecommunication in India
- 11.6 Smartphone Culture
- 11.7 Apps and Communication (Instagram)
- 11.8 Summing Up
- 11.9 Questions
- 11.10 References and Recommended Readings

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### **11.1 INTRODUCTION**

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The role of mobile phones in communication has evolved dynamically with the advancement of mobile technology. We no longer use our mobile phones just to call another person. In this unit, we shall learn about the multidimensional aspects of mobile technology and examine the mobile phone as a convergent technology and a locative media. We shall also delve into the history of telecommunication in India and discuss about the smart-phone culture of present times.

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### **11.2 OBJECTIVES**

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The objectives of this unit are to:

- Describe the role of mobile phone as a convergent technology
- Explain how mobile phone functions as a locative media
- Trace the history and evolution of telecommunication in India
- Discuss the smart-phone culture of the 21<sup>st</sup> century.

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### **11.3 MOBILE PHONE: A CONVERGENT TECHNOLOGY**

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The 21<sup>st</sup> century has ushered in a new era of media technology that is beginning the change the very nature of communication in the world. Technology has reached an electronic superhighway with voice, video and data converging, with the help of digital, multimedia and interactive communication technologies.

By convergence we mean the tendency for diverse technologies to become more closely integrated and even unified as they develop and advance. It is the coming together of two different entities, and in the contexts of computing and technology, is the integration of two or more different technologies in a single device or system. The simple concept of convergence allows multiple tasks to be performed on a single device, which effectively conserves space and power.

The mobile phone is the biggest example of such convergent technology. The use of a mobile phone is no longer limited to making and receiving calls and messages. With the integration of mobile technology, internet, social media, entertainment and other media, mobile phones have progressed into smart phones which have the combined functionality of a telephone, a camera, a music player, movie player, gaming console, social media, television, radio and a digital personal assistant (among other things) into one device. As the divide between our different technical and media needs is decreasing, with the integration of multiple media into one single device, it is resulting in more mobility and easier access.

Apart from the technology itself, the social change accompanying the technologies is intriguing as well. The new technologies are changing the way we live-the way we work, relax, manage our money, trade and communicate with each other. The new technologies are changing the way we perceive people, cultures, countries and companies and our expectations of them and also our expectations of ourselves.

### **ASSESS YOUR PROGRESS**

1. What do you mean by media convergence?

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## **11.4 LOCATIVE MEDIA**

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One important feature of convergent and digital media is its locative character. Locative media refers to media that are linked to particular geographical locations, through the use of global positioning satellite (GPS) coordinates accessed by mobile communication technologies. This feature allows the user to virtually tag their physical location as well as trace the location of another user. Nowadays, many media forms such as Facebook, Twitter, and Instagram have the function of tagging one's location based on Location-Based services technology. These social media sites themselves are not related to the location, but the content posted in these sites are. The significance of locative media therefore does not lie in merely the technology itself, but more in what meaning it holds socially.

Locative media have gained much importance in the production of social spaces. By wirelessly connecting to other devices, tracking geographic position and capturing audio-visual information, locative media make people aware not only of the virtual and digital world but also of the physical environment.

According to Lemos (2010) mobile media does not seek to put an end to the real by focusing more on the virtual. Rather, it focuses more on control, territorialisation and production of content by linking them to locations. Therefore, tracking, control, and surveillance are actions taking in the digital layer by actors, ordinary people, and professionals, which affects physical places. The intensive use of mobile technology is creating a new meaning to places, spaces, and territories.

Locative media does not only impact what types of location-based information we can access, but also how this new form of media is reconfiguring our perceptions of, and interactions with, location. The practice of users sharing their location on social network sites can be looked at as a new way to communicate and coordinate with friends, as well as a performative act of their identity to others.

### **ASSESS YOUR PROGRESS**

1. How does the feature of locative media impact mobile users?

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## **11.5 TELECOMMUNICATION IN INDIA**

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India is currently the world's second-largest telecommunications market with a subscriber base of 1.20 billion and has registered strong growth in the past decade and half. With 604.21 million internet subscribers, as of December 2018, India ranks as the world's second largest market in terms of total internet users. Further, India is also the world's second largest telecommunications market, with total subscriber base of 1,183.51 million at the end of March 2019 (IBEF Report, 2019).

Postal means of communication was the only means of communication in India until the year 1850 when experimental electric telegraph started for first time in Kolkata, after which construction of telegraph started throughout India.

Oriental Telephone Company Limited of England opened telephone exchanges at Calcutta (Kolkata), Bombay (Mumbai), Madras (Chennai) and Ahmadabad in 1881. On the 28th January 1882, the first formal telephone service was established with a total of 93 subscribers.

Since 1902 onwards, India started to progress through cable telegraph to wireless telegraph, radio telegraph, radio telephone and trunk dialling.

Eventually digital microwave, optical fibre, satellite earth station were introduced. During British period all major cities and towns in India were linked with telephones.

After separation from Indian Post & Telecommunication, Department of Telecom (DoT) became responsible for telecom services in the entire country since 1975. By 1985, Mahanagar Telephone Nigam Limited (MTNL) was launched as a separate fragment of DoT to run the telecom services of Delhi and Mumbai.

In 1995 TRAI (Telecom Regulatory Authority of India) was set up, thus reducing the interference of Government in deciding tariffs and policy making. The Department of Telecom was renamed as Bharat Sanchar Nigam Limited (BSNL).

Over the years, many private operators, especially foreign investors successfully entered the high potential Indian telecom market. Globally acclaimed operators like Telenor, NTT Docomo, Vodafone, Sistema, SingTel, Maxis, Etisalat invested in Indian.

The first mobile telephone service on non-commercial basis started in India on 48th Independence Day at country's capital Delhi. The first cellular call was made in India on July 31st, 1995 over Modi Telstra's Mobile Net GSM network of Kolkata.

In 2008, India entered the 3G arena with the launch of 3G enabled Mobile and Data services by Government owned MTNL and BSNL. Later from November 2010 private operator's started to launch their services.

There are 307 Internet Service Providers (ISPs) offering broadband services in India as of 30th June, 2019. As of June 2019, the top five ISPs in terms subscriber base are Reliance Jio million), BhartiAirtel, Vodafone, BSNL and Tata Teleservices. In 2009, about 37 per cent of the users accessed the Internet from cyber cafes, 30 per cent from an office, and 23 per cent from home. However, the number of mobile Internet users increased rapidly from 2009 on and there were about 359.80 million mobile users at the end of January 2018, with a majority using 4G mobile networks.

With 451 million monthly active internet users at end of financial year 2019, India is now second only to China in terms of internet users, according to a

report by Internet and Mobile Association of India (IAMAI). However the internet penetration in India is only 36% with a vast disparity in the levels of penetration in rural and urban areas.

Next Generation Networks, multiple access networks can connect customers to a core network based on IP technology. These access networks include fibre optics or coaxial cable networks connected to fixed locations or customers connected through Wi-Fi as well as to 3G and 4G networks connected to mobile users.

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## **11.6 SMARTPHONE CULTURE**

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Probably one of the most important and popular inventions of the 21st century so far has been the smart-phone. With rapid advancement of communication and computer technology, every other industry now seeks to leverage their services and functionality. It was as a marketing strategy that the term ‘smart-phone’ was first introduced meaning a class of mobile phones with integrated services like communication, mobile sectors including voice communication, messaging, personal information management and wireless communication technology. In its early days, the smart phone was considered to be an item of luxury as well a complicated device, and was owned by few. However, over time, the smart phone has become more of a necessity and if observed closely, one can gather that it is one of those modern-day technologies that one almost cannot live without, and has become dependent on for day-to-day functioning.

Smart phones come with the combined functionality of mobile technology, personal computer. There are also advanced multimedia features in smart phones such as internet, instant messenger, e-mail, games, video, music and radio. Thus, smart phones fulfil our communication, convenience and entertainment needs.

We are now living in an age, where it has become difficult to function without a smart-phone, as different aspects of our daily needs are fulfilled only with the help of a smart-phone. From setting the morning alarm, event reminders and lists of things-to-do; communicating friends, family and colleagues via calls, SMS, voice messenger apps like WhatsApp, emails,

social media sites like Instagram, Facebook, Twitter; staying updated with news via internet services; watching videos and movies; taking and storing photographs; listening to music; making payments and receiving money; shopping online; playing games; locating a place via maps; to booking cabs or tickets to buses, trains, flights or movies- we are dependent on the functionality of a smart-phone for almost everything we do.

The smart-phone culture has dawned upon our society and given the rising popularity and widespread usage with every passing day, it seems like this culture is here to stay. Children of the new generation are being raised with smart-phones as essential parts of their life and a sizeable portion of the older generation is also walking past their comfort zones to adapt to this culture.

Like every other socio-cultural phenomenon, smart-phones have both advantages and disadvantages, positive and negative impacts to their credit.

#### **Advantages of Smart-phones**

**Compact and Convenient:** The convergence of several technologies in one single device makes the smart-phone a compact, an encompassing instrument, catering to our different needs. Instead of carrying several items like CD players, cell phones, cameras, video cameras, calculators, laptops, GPS devices, e-readers, and more, we now only need to carry a small, light-weight smart-phone to accomplish all those tasks. Besides the contacts, our phone is able to store a lot of other data like photos, videos, credit card numbers, memorable dates, as well as our written thoughts and ideas. In the modern society, smart-phones have already replaced paper notebooks and flash drives.

**Communication:** Smart-phones have made the process of computer-mediated-communication easier than ever with its many applications and tools that allow communication to take place smoothly. For instance, apart from voice calls and SMS services which are primary features of mobile technology, our smart-phones help us reach out to our friends, family and acquaintances via messenger applications, internet video calling services and social media apps.



**Digital Assistant:** Smart-phones can become our personal digital assistant by keeping track of our work and activities, setting reminders and organising our tasks with different applications. Smart-phones and android applications have made it possible for us to now make online payments, book online tickets, do online shopping, and even work online. With the Internet access, we can quickly find much-needed information almost anywhere with the help of search engines like Google.

### **Disadvantages of Smart-phones**

**Psychological and physiological effect:** One of the vices of the smart-phone culture is the health hazards that it can have over users. Constant usage of smart-phones can negatively affect our physical and mental health, our relationships and our productivity. Young people often get addicted to the internet, using social media and other applications on their smart-phones beyond levels of what can be considered to be of necessity and convenience. Like drug or gambling addictions, smart-phones provide an escape from reality. Researchers have found that smart-phones are creating a new kind of stress for people at home, at work, and in social settings, which are leading to an increased level of anxiety, depression and other mental health issues amongst users.

**Over-dependency:** Overuse of technology has completely transformed how we communicate and interact with other people. Instead of getting real face time with the people in our lives, we often hide behind a screen. As the smart-phone has good amount of storage memory and well as the feature of finding instant answers to questions, it also starts limiting people's creativity and productivity.

For example, instead of reading a book to understand a concept, one might simply turn to search engines like 'Google' to find a readymade explanation. We have become so dependent on the smart-phone for every big and small activity in our day to day life that one often feels incomplete without their smart-phone. While technology can be a useful tool for keeping us connected, we have to be careful with when and how we use it.

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## 11.7 APPS AND COMMUNICATION

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If you are a smart-phone user, then the word ‘app’ must be familiar to you. ‘App’ is the short form used for the word ‘application’.

An application is a software program that’s designed to perform a specific function directly for the user or, in some cases, for another application program which runs on a computer system. The word "application" is used because each program has a specific application for the user. A mobile application is a computer program designed to run on a mobile device, such as a phone / tablet or a watch.

### Types of Apps

Commonly used mobile applications can be categorised within the following types:

**Educational apps:** Educational or learning apps are designed to provide an interactive learning experience of any skill, subject or course to its user. These apps generally come with an interface containing audio-visual messages to instruct and engage with the learner. Examples: Duolingo, Udemy, Unacademy.

**Lifestyle apps:** Applications that are designed to fulfil daily needs of individuals, making life easier for them are called lifestyle apps. These apps help accelerate or support the individual facets that define their lifestyle. These could be related to fitness, dating, food, music, travel etc. Examples: HealthifyMe, TripAdvisor, Uber, Tinder.

**Social media apps:** Most popular social media websites have their corresponding mobile applications allowing the users to experience the ease and comfort of explore these sites from their smart-phones. It makes it easier and convenient for social media users to update their profiles and share posts, pictures and videos to their pages. Facebook, Twitter, Instagram

**Productivity/Utility apps:** Most smart-phones come pre-installed with certain utility apps like calculator, reminder, alarm clock, calendar etc. These apps are designed to make work easier and help users organise their day to day life. Examples: ToDoist, Calender, Cloud.

**Entertainment apps:** These are apps that are interactive and designed to entertain and inform the user, and which contain audio, visual, or other content. These could include streaming apps, music apps, news apps or movie apps. Examples:Netflix, YouTube, Hotstar.

**Payment apps:** Also known as mobile wallet, payment apps are those which store the user's debit and credit card details so that they can pay for services digitally using a mobile device/smart-phone. To use a mobile wallet, a consumer can download a mobile wallet app on their phone and add debit or credit card information which will be stored securely. Example: Paytm, Google Pay, MobiKwik.

**Online Shopping Apps:** Online shopping is a popular form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Many popular online shopping websites have their corresponding mobile apps with user-friendly interfaces. For example: Amazon, Flipkart, Limeroad.

**Game apps:** Most smart-phones come pre-installed with animated mobile games of different genres. There are also many other games that can be downloaded from an app-store. Some of them require internet connectivity, while some do not. Examples: Sudoku, Angry Birds, Candy Crush.

The way we use technology to communicate is constantly evolving, reflecting the innate habits of human communication. Looking ahead, communication applications are likely to evolve to become more attractive, instinctive and fluid. As the use of biometric information increases, users are more likely to enjoy privacy and on-demand security in communication applications. Communication applications are likely to evolve into a state in which communicating with each other becomes digitally natural, like human interactions.

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## 11.8 SUMMING UP

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- The 21st century has ushered in a new era of convergent media technology that is beginning to change the very nature of communication in the world. The mobile phone is the biggest example of such convergent technology. With the integration of mobile technology, internet, social media, entertainment and other media, mobile phones have progressed into smart phones which have the combined functionality of different services into one device.
- One important feature of convergent and digital media is its locative character. Locative media refers to media that are linked to particular geographical locations, through the use of global positioning satellite (GPS) coordinates accessed by mobile communication technologies.
- India is currently the world's second-largest telecommunications market with a subscriber base of 1.20 billion. With 604.21 million internet subscribers, as of December 2018, India ranks as the world's second largest market in terms of total internet users.
- We are now living in an age, where it has become difficult to function without a smart-phone, as different aspects of our daily needs are fulfilled only with the help of a smart-phone and we are dependent on the functionality of a smart-phone for almost everything we do.

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## 11.9 QUESTIONS

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1. Elucidate the function of the mobile phone as a convergent technology.
2. Trace the history of Telecommunications in India.
3. What are the different types of mobile apps? Explain with examples.

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## 10.10 REFERENCES AND RECOMMENDED READINGS

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## **MODULE IV: EDUCATIONAL TECHNOLOGY**

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## **UNIT 12: ONLINE EDUCATION**

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### **UNIT STRUCTURE**

- 12.1 Introduction
- 12.2 Objectives
- 12.3 Online and Blended courses
- 12.4 Massive Open Online Courses (MOOC)
- 12.5 Open Learning Platforms (E-Pathsala)
- 12.6 Online Reservoir (Shodhganga)
- 12.7 Open Educational Resources
- 12.8 Summing Up
- 12.9 Questions
- 12.10 References and Recommended Readings

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### **12.1 INTRODUCTION**

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Amongst many characteristic features of the new media, online education system is one too. In this unit, we shall get introduced to the concept of online education, and understand how with the help of technology- educational courses and material can be accessed from remote locations. This unit will also examine its diverse aspects and explore the various open learning platforms available in the online space.

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### **12.2 OBJECTIVES**

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The objectives of this unit is to

- Discuss the concept of online education courses.
- Explain the process and mechanism of online methods of teaching and learning.
- Describe the various open learning platforms available.
- Analyse the pros and cons of the online education system.

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### 12.3 ONLINE AND BLENDED COURSES

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The 21<sup>st</sup> century has ushered in an age of innovation using information and communication technology in almost every aspect of human life, the field of education being one of them too. Application of internet and communication tools has enabled teaching and learning to be a process that can be accessed from remote locations, beyond the settings of formal education.

Collins (2002) define online education as the creation and proliferation of the personal computer, the globalization of ideas and other human acts, and the use of technology in exchanging ideas and providing access to more people. Audio, video, computer, and networking technologies are often combined to create a multifaceted instructional delivery system. The fundamental method to unite the distance learning instructor with the distance learner is the network. Networks suitable for distance learning implementations include satellite, cable modem, digital subscriber lines (DSL), and wireless cable, (Collins, 2002).

**Online courses** are designed as instructional experiences using the digital network for interaction, learning and dialogue. Students access class objectives, lecture notes, instructional materials, and exams via Internet. Students and instructor interact online via e-mail, chat rooms, and threaded discussions. An online course does not require any face-to-face meetings in a physical location. Similar courses such as web-centric courses (also called hybrid or blended courses) are similar to online courses, but require regular scheduled face-to-face classes or meetings.

Blended learning approach is the combination of online study tools and internet technology with traditional classroom methods which requires the physical presence of both teacher and student. A blended course is designed in a way that some in-class time is substituted by equally meaningful online activities. This means that the in-class and online portions of a course are complementary and have been thoughtfully combined to meet the needs of the learner and the goals of the course.



Blended courses are structured keeping in mind the unique challenges of the learning environment, course content, instructor preferences, and needs of the learner. There is a flexibility enabling instructors to make the right pedagogical decisions regarding their course structure. The challenge lies in finding the right balance of face-to-face and online activities. The course structure is ideally created with the learner at the centre.

Both online courses and blended courses fall into the gamut of distance education or distance learning which is a traditional method of studying in which lessons are conducted by correspondence, without the student needing to attend a school or college. The ‘online’ element has been integrated in recent times, given that new media technologies are being widely adopted by audiences globally. However, an online course need not necessarily be a distance course. Students can be together with an instructor and use online learning, but distance learning implies that students and instructor are separated.

#### **ASSESS YOUR PROGRESS**

3. What is blended learning?

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4. What is the difference between distance education and online courses?

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### **12.4 MASSIVE OPEN ONLINE COURSES (MOOC)**

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Online and blended courses are designed by educational and specialised institutes to complement and aid the process of learning as well as to reach out to wider range of learners. However, one generally needs to enrol for these courses and pay an admission fee. These courses are time-bound, often with limited intake and closely monitored by the institute.

Massive Open Online Courses (MOOCs) on the other hand are free web-based distance learning programs designed for the participation of a large number of geographically dispersed students, aimed at unlimited participation and offering open access. MOOCs come with the option of free and open registration, a publicly-shared curriculum, and open-ended outcomes. MOOCs integrate social networking, accessible online resources, and are facilitated by leading practitioners in the field of study. Most significantly, MOOCs build on the engagement of learners who self-organize their participation according to learning goals, prior knowledge and skills, and common interests.

The notion of the MOOC is coupled with: the strengths and limitations of the information technology platforms that make them possible, the relative merits of the providers of both platforms and courses, and the value of the very idea that courses can be offered by the best teachers from the best universities, at no charge, to anyone who wishes to enrol. It can be understood that MOOC is an educational innovation that combines and extends the capabilities of existing technologies, and draws on a range of approaches to e-learning to offer a new educational product in a new way to new markets (Kim, 2014).

The term MOOC was coined to refer to a course developed by Stephen Downes and George Siemens in 2008, intending to reach out to a wide variety of participants using online tools so as to provide a richer learning environment than traditional tools would allow. 25 students attended the course on the campus of the University of Manitoba, and a further 2300 from around the world participated online.

The term massive suggests that these courses should allow access to a very large number of students, much larger than a face-to-face class, or a traditional online course. In addition, the course should be prepared to accept changes in the number of students in several orders of magnitude, for example, going from 1,000 to 100,000 students, without a major problem for operation.

The term open implies the course should be open to everyone without demanding any prerequisites and access to educational resources (videos, lecture notes) should be free of cost and hosted on open sources.

The implications of online can be clearly understood as the course being available via internet connection, with no requirement of physical attendance or interaction between teacher and learners.

The term course signifies the structured planning of a learning objective, to be achieved within a given period of time.

Nowadays, MOOC is the most popular way used to offer online courses, globally. In recent years, the enrolment in MOOC has increased tremendously. India after US is dominating the global growth in enrolments. Seeing the growth of enrolment from the country and satisfy their need of education, India has started various projects for offering MOOC courses. Currently, NPTEL, mooKIT, IITBX, and SWAYAM are the platforms used in India for offering courses.

**NPTEL** stands for National Programme on Technology Enhanced Learning. It is a project funded by MHRD, initiated in 2003. It is a joint initiative of seven Indian Institute of Technology (IITs) and Indian Institute of Science (IISc) for offering courses on engineering and science, initially. Now, NPTEL has started online course in computer science; electrical, mechanical, and ocean engineering; management; humanities, music etc. It offers free course with nominal fees for certification. Anybody from anywhere can join their course.

**MooKIT** is a lightweight MOOC management system built entirely using open-source technologies by Indian Institute of Kanpur (IITK), in 2014. It is a powerful system that can be used to offer online courses at any scale, from micro to massive. It has been used in 15 courses with about 100,000 registered learners.

**IITBombayX** is a non-profit MOOC platform developed by IIT Bombay using the open-source platform Open edX, in 2014. It was created with funding from National Mission on Education through Information and Communication Technology (NME-ICT), Ministry of Human Resource

Development (MHRD), Government of India. Currently, it is offering 63 courses on different subjects from multiple disciplines.

**SWAYAM** stands for “Study Webs of Active Learning for Young Aspiring Minds”. It is a MOOC platform MOOC launched by the Ministry of Human Resource Development (MHRD), government of India, to bind online and offline education together. It is started with an expectation of launching 2,000 courses, to make it largest course catalogue, among all provided so far. For SWAYAM an independent platform is developed.

#### **ASSESS YOUR PROGRESS**

1. What is a MOOC?

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2. What is meant by massive in MOOC?

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3. Name a few MOOC initiatives in India.

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### **12.5 OPEN LEARNING PLATFORMS (E-PG PATHSALA)**

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Open learning has evolved as an innovative movement, bringing a revolution in the teaching-learning process and enhancing the scope of education all over the world. In the Indian context too, open learning has been widely embraced over the years and noteworthy development in the field can be seen.

With the mission and vision of making India the developed nation, the former Prime Minister Dr.Manmohan Singh had initiated India’s Education Plan, as on December 2007 in the eleventh meeting of National Development Council (NDC). The aim of this program is to achieve rapid growth of Indian society (Digital Learning, 2008).

Amongst some of the broad steps taken by Indian Government for ICT based e-learning, **e-PG Pathshala** was introduced.

E-PG Pathshala provides high quality, curriculum-based interactive e-content in 70 subjects across all disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences, linguistics and languages. The prime objective is to meet curriculum and course content requirement for every postgraduate learner. This website is a virtual library of more than eighteen thousand (18,000) e-texts, more than seventeen thousand (17,000) learning videos, more than three thousand two hundred (3200) experts, more than thirty thousand (30,000) quizzes with total count of around 70 subjects and 723 papers from multidisciplinary context (NME-ICT, 2014).

The portal of e-PG Pathshala follows the four-quadrant approach proposed by the NMEICT to meet the learners' requirement focusing upon the much advanced and qualified sectors of postgraduates. These four quadrants are as per which the e- PG Pathsala courses are designed are:

**First Quadrant:** This quadrant furnishes the requirement of accessing e-contents. This may include, e-books, illustrations, PDFs along with embedded video demonstrations. This quadrant involves the designing and defining of course structure and textual contents respectively.

**Second Quadrant:** This quadrant provides teaching environment via e-tutoring. It takes care of visual ability of the student. It provides a zone of rich multimedia programs. This may include 30-45 minutes long audio and video clips, animated topics and virtual labs .

**Third Quadrant:** This quadrant provides the provisions of accessing multiple web resources. This could be in form of hyperlinks that navigates student to the specific external learning resources. This may include, 'Points to Ponder', 'Glossaries', 'FAQs', 'blogs', 'discussion forums' and so on.

**Fourth Quadrant:** This is the quadrant of self-assessment, an important zone. A student can anytime check his progress or his understandings for the learned subjects by accessing the assessment and evaluation tools. This

includes various quizzes, question and answer sessions, multiple choice questions (MCQs), true or false, sequencing, problem solving and so on.

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## **12.6 ONLINE RESERVOIR (SHODHGANGA)**

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Electronic theses and dissertations (ETDs) are highly valuable resources for research and development in the academic institutions. In early days, the research reports were not available to access in the public domain. The advancement in the ICT has changed the way of organizing, processing and disseminating of information to the end users. The invention of Open Access has made it easy to access any information in the digital environment. The educational institutions have also started to deposit their content in the digital form called “Institutional Repository (IR) and made it available to the users (Shivakumaran, 2015).

As per UGC Regulations, the responsibility of hosting, maintaining and making the digital repository of Indian Electronic Theses and Dissertation (called "Shodhganga"), accessible to all institutions and universities, is assigned to the INFLIBNET Centre. The main objective of Shodhganga@INFLIBNET Centre is to provide a platform for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access.

The word “Shodh” originates from Sanskrit and means of research and discovery. Ganga is the largest river in India. This project was intended to provide online accessibility to Indian theses, to ensure that they are easy to access and to create a place for them to be archived (Dhanavandan et.al., 2013).

More than 293 universities in India have signed MoUs with the INFLIBNET Centre to participate in the Shodhganga project. The full text of all the documents submitted to Shodhganga is available to read and to download in open access to the academic community worldwide. The repository has a collection of 2, 10,661 theses and 6123 synopses so far.

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## 12.7 OPEN EDUCATIONAL RESOURCES

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Article 26 of the Universal Declaration of Human Rights declares that everyone has the right to education, and that “technical and professional education shall be made generally available” (United Nations, 1948). The movement of online education stands testimony to the fact that this journey is well in progress.

New distance education technologies, legal practices, and philosophies, such as Open Course Wares, act as enablers to achieving the universal right to education. The Open Educational Resources (OER) movement is a technology-empowered effort to create and share educational content on a global level.

Open Educational Resources is a relatively new concept and an important aspect of online education movement which may be seen as a part of a larger trend towards openness in higher education including more well-known and established movements such as Open Source Software (OSS) and Open Access (OA).

The two most important implications of openness have to do with free availability over the Internet and as few restrictions as possible on the use of the resource. There should be no technical barriers (undisclosed source code), no price barriers (subscriptions, licensing fees, pay-per-view fees) and as few legal permission barriers as possible (copyright and licensing restrictions) for the end-user. The end-user should be able not only to use or read the resource but also to adapt it, build upon it and thereby reuse it, given that the original creator is attributed for her work. In broad terms this is what is meant with “open” in all three movements.

The term Open Educational Resources first came to use in 2002 at a conference hosted by UNESCO. Participants at that forum defined OER as: “The open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes.”

The currently most used definition of OER is: “Open Educational Resources are digitised materials offered freely and openly for educators,

students and self-learners to use and re-use for teaching, learning and research.”

Open Course Wares are online open access collections of educational materials used in courses at universities such as the Massachusetts Institute of Technology (MIT), the Open University, Johns Hopkins, Kyoto University, Notre Dame, and Korea University. Currently, over 2,500 open access courses are freely available from over 200 universities worldwide. And additional higher education institutions are launching Open Course Ware-style projects regularly (Caswell et.al, 2008).

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## **12.8 SUMMING UP**

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The 21<sup>st</sup> century has ushered in an age of innovation using information and communication technology in almost every aspect of human life, the field of education being one of them too. Application of internet and communication tools has enabled teaching and learning to be a process that can be accessed from remote locations, beyond the settings of formal education. Online and blended courses are designed by educational and specialised institutes to complement and aid the process of learning as well as to reach out to wider range of learners.

Massive Open Online Courses (MOOC) is the most popular way used to offer online courses, globally. In recent years, the enrolment in MOOC has increased tremendously. India after US is dominating the global growth in enrolments. Amongst some of the broad steps taken by Indian Government for ICT based e-learning, e-PG Pathshala and Shodhganga were introduced. New distance education technologies, legal practices, and philosophies, such as Open Course Wares, act as enablers to achieving the universal right to education.

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## **12.9 QUESTIONS**

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1. How have MOOCs contributed in the development of online learning in India?
2. Write a note on E-PG Pathsala.
3. What is Shodhganga?



4. Explain the role of online educational resources in achieving universal education.

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## 12.10 REFERENCES AND RECOMMENDED READINGS

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## **UNIT 13: NEW MEDIA, NEW AUDIENCES**

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### **UNIT STRUCTURE**

- 13.1 Introduction
- 13.2 Objectives
- 13.3 Digital Natives and Digital Immigrants
- 13.4 Digital Fluency
- 13.5 Online Games and Children
- 13.6 New Media and Online Society
- 13.7 Summing Up
- 13.8 Questions
- 13.9 References and Recommended Readings

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### **13.1 INTRODUCTION**

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The emergence of new media technologies have revolutionised people's lifestyles, the way they communicate with each other, their education, the kind of relationships they have, career choices, and possibly every avenue of human culture and civilisation. However, the transition from a traditional society to an online community comes with its own pros and cons. This unit shall discuss the characteristics of the new audiences of new media and their different aspects.

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### **13.2 OBJECTIVES**

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The objectives of this unit are to:

- Identify with digital natives and digital immigrants.
- Explain how online games affect children.
- Discuss about new media and the online community.

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### **13.3 DIGITAL NATIVES AND DIGITAL IMMIGRANTS**

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In recent years, digital media and networks have become embedded in our everyday lives, and have changed the way we engage in knowledge production, communication, and creative expression. The use of digital media is now commonplace and pervasive, having been taken up by a wide

range of individuals and institutions in all walks of life. An entire generation is growing up in an era where digital media are part of their socialisation process.

A three year old can today easily swipe across the screen of a smart-phone and handle it like a pro, while a 60 year old may fumble in their struggle to send a simple SMS using a touch-screen mobile phone. This is because of the two different generations the three year old and the 60 year old belong to- one being a digital native and the other a digital immigrant.

The term digital native is used to describe a person who has grown up in the digital age, while a digital immigrant is one who has acquired familiarity with digital systems as an adult. Both terms were coined in 1996 and are often used to describe the digital gap in terms of the ability of technological use among different generations of people.

Children born in the mid- to late-1980s and the 1990s have been labelled the Digital Natives or the Internet Generation: the first generation to grow up in a world where the Internet was always present. They are also called the Net Generation, the Net-Gen, Generation i, the Digital Generation, or the Millennials. This generation socializes more online, downloads more entertainment media, and consults the Web for a wider range of purposes than do present adults or young people of the previous generation. As a result, members of the younger generation are often more Internet savvy than their teachers, parents, grandparents, and even older siblings. The age gap with respect to technology is referred to here as the generational digital divide, or simply the generational divide.

**Digital Immigrants** are those who are born before 1980s and they are fearful about using technology as they weren't raised in a digital environment. The term digital immigrant mostly applies to individuals who were born before the spread of the digital technology and who were not exposed to it at an early age. Digital natives are the opposite of digital immigrants; as they have been interacting with technology since their childhood. According to Prensky (2001), digital natives are the generation of young people who are "native speakers" of the digital language of computers, video games and the Internet (Prensky, 2001).

As digital immigrants learn – like all immigrants, – to adapt to their new environment, they always retain, to some degree, their "accent," that is, their past orientation of technology. Their use of the new media often happens not as a means of ease, convenience or preference but because of inevitability. This class of users has been "socialized" differently from the new generation and they are only gradually learning the new digital language. And it is never easy to learn a new language.

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### 13.4 DIGITAL FLUENCY

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Imagine travelling to a foreign country and carrying out a seamless conversation in its native language with the local people. This means you are considered "fluent" in a second language!

‘Fluency’ derives from the word ‘flow’ and when we think about being ‘fluent’ in any context; it refers to being flexible, accurate, efficient, and appropriate. In other words, the way we use skills, language and speech flows naturally and easily. In technology, the concept of fluency is similar. In a digital context for learning, fluency involves using technologies “readily and strategically to learn, to work, and to play, and the infusion of technology in teaching and learning to improve outcomes for all students” (Briggs & Makice, 2012).

**Digital fluency** is thus, the ability to select and use the appropriate digital tools and technologies to achieve a particular outcome as well as reformulate knowledge and produce information to express oneself creatively and appropriately in a digital environment. Digital fluency also requires excellent communication skills, new media literacy, and cognitive load management to address the issues, and concerns we face today and in the future.

How is digital fluency different from digital literacy? In learning a foreign language, a literate person can read, speak, and listen for understanding in the new language. A fluent person can *create* something in the language: a story, a poem, a play, or a conversation. Similarly, digital literacy is an understanding of how to use the tools; digital fluency is the ability to create something new with those tools (Sparrow, 2018).

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### 13.5 ONLINE GAMES AND CHILDREN

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Play and games are essential parts of childhood, and hence it is no surprise that online games have become defining experiences for the digital generation of children. For young children who are exposed to the world of mobiles, computers and internet from their early childhood, online gaming is a more relatable experience than the traditional concepts of play and games. Children are often used as targeted audiences by the gaming industry, not only because of the ease of attracting them to newer technological possibilities, but also because of them being more tech savvy and digitally fluent.

Online gaming is the most sought leisure activity followed by children now days. The digital natives do not like to indulge in outdoor activities, like running or playing outside but prefer to spend most of their time playing online games.

Online games are designed to attract young players, banking on the social understanding that play reduces stress, improves self-expression, supports emotional development, and strengthens physical development and much more. Studies have shown that playing online games help players find new ways to communicate, express themselves, and experience role-playing, improve their problem solving skills, coordinating skills and social interactions. It is maintained by scientists that online games can make children smarter by teaching them high-level thinking skills. As they grow up in a computer-mediated world, their early experiences of engaging with the online games help them adapt to concepts of computing.

Online video games can make learning a fun process. The colours, animation, sounds as well as the interactivity and the challenge and the rewards of winning make it a memorable experience for them. The best way to learn is when the learner is having fun at the same time. That's why video games are natural teachers. Often pre-school teachers use games and interactive videos for teaching concepts in their class which makes it interesting for the children.

While these online games are helping millennial children enhance their skills and develop their minds, this gaming culture amongst children is also an area for concern in many ways.

Spending a lot of time playing online games instead of indulging in physical activities can be detrimental to a child's health in several ways. Constantly sitting in one place and playing online games at length can increase the chances of obesity, weaken the muscles and joints, make hands and fingers numb due to over-exertion, and can even weaken eyesight.

Apart from physiological effects, these games can even have a negative impact on the children's minds. Spending too much time playing online games can lead to anxiety and depression, owing mainly to some of the disturbing, violent content. Studies have shown how children also tend to become socially isolated and prefer to spend time alone interacting with a machine and avoid real-life interactions. There are also concerns of games becoming addictive and leading to losing concentration in school work and studies. The World Health Organisation added "gaming disorders" to its 2018 medical reference book, *International Classification of Diseases*.

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### **13.6 NEW MEDIA AND ONLINE SOCIETY**

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As is evident from the above discussions, the new media clearly has a new and specific targeted audience- that is the youth and children. Apart from the reason that it is the new tech-savvy generation that spends more time using computers and mobile phones, it is also because of the changing nature of social interactions and expectations that the youth are being targeted as the 'new audience' for 'new media'. Along with the evolution and progress of the new media, the existing characteristics of the new media audience are also changing.

With new media, a new online, virtual, society/communication is emerging as well. The traditional definition of a community is of geographically circumscribed entity (neighbourhoods, villages, etc.). Virtual communities are usually dispersed geographically, and therefore are not communities under the original definition.

A virtual community is a group of people who share common interests, feelings or ideas, or pursue similar goals via the internet or over any collaborative network. Social media is the most common vehicle for this sharing and interaction, which can potentially transcend geographical boundaries. Facebook, Twitter, Instagram are examples of social networking hubs, which allow people to form smaller communities based on other interests.

Howard Rheingold first used the term in his book "The Virtual Community," in 1993 describing the virtual community as social aggregations that emerge from the internet when people continue discussions long enough and with enough emotion to form real human relationships within cyberspace.

These virtual communities are usually built around certain needs and goals of the users. Here are some common examples of virtual community types:

- **Forums:** A forum is an online discussion group. Using forums for discussion allows participants with common interests to exchange open messages. Example: **Quora**.
- **Online chat rooms:** A chat room is a designated virtual channel where users communicate with each other through the internet. The term can mean online chatting, instant messaging and online forums using either synchronous or asynchronous conferencing. Example: **Yahoo Messenger**.
- **Specialized information communities:** Specialized Information Communities are a place where people with similar interests can discuss and share their experiences and interests. Example: **TasteofHome.com**.
- **E-mail groups:** Email groups are special usage of email that allows for widespread exchange of information to a list of email addresses. Lists can be set for private or public viewing, announcement only or for anyone to post, or so that reading is open to the public but posting is open to members only. Today, mailing lists are most often used for

collaboration on various projects and as a way of exchanging information.

Identity plays a key role in virtual communities. In communication, which is the primary activity, knowing the identity of those with whom you communicate is essential for understanding and evaluating an interaction. Yet in the disembodied world of the virtual community, identity is also ambiguous. Many of the basic cues about personality and social role we are accustomed to in the physical world are absent.

In the physical world the body provides a compelling and convenient definition of identity. One body implies one identity. The virtual world is different. It is composed of information rather than matter. Information spreads and diffuses; there is no law of the conservation of information. The inhabitants of this impalpable space are also free from the body's fixed identity. It is thus possible to have multiple virtual identities.

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### **13.7 SUMMING UP**

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1. A new digital language is evolving and is increasingly prevalent with technical savvy individuals as a normal means of communication, creating a communication lull between generations affecting both the digital natives and digital immigrants.
2. Online gaming is the most sought leisure activity followed by children now days. The digital natives do not like to indulge in outdoor activities, like running or playing outside but prefer to spend most of their time playing online games.
3. With new media, a new online, virtual, society/communication is emerging as well. The traditional definition of a community is of geographically circumscribed entity. Virtual communities are usually dispersed geographically, and therefore are not communities under the original definition.

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### **13.8 PROBABLE QUESTIONS**

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1. Distinguish between digital natives and digital immigrants.
2. What are the positive and negative impacts of online games on children?



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## 13.9 REFERENCES AND RECOMMENDED READINGS

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## **UNIT 14: NEW MEDIA AND DEVELOPMENT**

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### **UNIT STRUCTURE**

- 14.1 Introduction
- 14.2 Objectives
- 14.3 Use of New Media for Development
- 14.4 Information Society
- 14.5 Open Surveillance Society
- 14.6 Web Commerce
- 14.7 Summing Up
- 14.8 Questions
- 14.9 References and Recommended Readings

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### **14.1 INTRODUCTION**

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In this unit, we shall discuss about the role of new media technologies in the field of development. We shall try to understand how it enhances and facilitates the process of development of the society.

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### **14.2 OBJECTIVES**

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The objectives of this unit are to:

- Explain how new media can be used in development.
- Define and understand the concepts of Information Society and Surveillance Society
- Describe the idea of web commerce.

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### **14.3 USE OF NEW MEDIA FOR DEVELOPMENT**

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Development can never happen unless multiple stakeholders and actors of the society are connected to each other. Development, after all, is not a one-person job but a result of the united efforts of the state and citizens. From a social point of view, development refers to the change in the social structure or in the functions performed by different groups and units within it. It is a process of innovation where one learns from the experiences of

others and assimilates what is considered useful through a process of selection. The progressive change is described as alterations in awareness, motivation and participation of the individuals (Roy, 2015).

For a strong network and information flow to navigate the process of development, strong tools of connectivity are important. Issues such as health care, poverty reduction, good governance, environmental protection and community development, socio-economic and cultural development cannot be solved by the government alone. It has become imperative now that the society as a whole take steps to facilitate its own development agenda.

To achieve development goals, the role of human communication is to understand the reality and select other subsequent goals. Thus, having mutual understanding is fundamental to the process of communication itself. A comprehensive communication is necessary at all levels with several loops of feedback and feed-forward to arrive at mutual understanding.

As we have discussed in the last few units, we are now living in an age dominated by new media technology. New technologies like mobile, website and internet which are interactive in nature have been put to use for development communication. Interactivity, instant feedback and persuasion capability are used to rope in the participation of common people into the process of development. Today, new media have become active tools in the run to development communication. This takes various forms like E-Governance, E-Choupal, Telecentres etc. The government now has different websites and call centres that provide instant information or answers queries to questions of development.

The true potential of the media as the fourth estate is also gradually being unfolded; facilitated by the advent of social media platforms in recent times. By means of its immediate and amplified reach, social media has transformed the way people interact with each other, and information and social awareness have emerged as important factors of human empowerment.

**E-Governance:** Electronic governance is the delivery of public services and information at the doorstep of the people with the help of computers. E-governance uses the ICT for planning, implementation, and the monitoring of government programmes.

**E-Choupal:** Traditionally, choupal is known as the central gathering place in the village, a kind of rural forum, where people discuss, debate and decide on their course of action about some burning issues in the community. E-choupals in the digital age share information through the Internet while retaining their pristine, democratic character.

Social media is designed to be disseminated through social interaction, created using highly accessible and scalable publishing techniques. Social media uses Internet and web-based technologies to transform broadcast media monologues (one to many) into social media dialogues (many to many). It supports the democratization of knowledge and information, transforming people from content consumers into content producers (Frakes, 2010).

Social media run on mobile and web-based technologies and create highly interactive forums through which individuals and communities can share and discuss their ideas. This brings about substantial and pervasive changes to communication between organizations, communities, and individuals.

#### ASSESS YOUR PROGRESS

1. What is E-Governance?

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2. What is E-Choupal?

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## 14.4 INFORMATION SOCIETY

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The widespread application of new media technologies across the world has turned the world into a global village. The most valuable commodity in this age is information. Information provides awareness, knowledge, and power! We live in a competitive world and in any area of competition, friendly or otherwise; the most informed party has the upper hand. An “informed” person generally makes the most appropriate decision. Information is the key word in our age. This is the beginning of the Information Age (Ayaz, 2004).

Information Society is defined as a society based on information and knowledge. It is a society in which creation, distribution, and manipulation of information has become the most significant economic and cultural activity.

It is a society characterised by a high level of information intensity in the everyday life of citizens, in most organisations and workplaces; by the use of common or compatible technology for a wide range of personal, social, educational and business activities, and by the ability to transmit, receive and exchange digital data rapidly between places irrespective of distance (IBM Report, 1997).

Just like in a society in which the economic underpinning is primarily Industrial or Agrarian, the machine tools would be lathes and ploughs; in an industrial society steam power and fossil fuels would be distinguishing elements; similarly the machine tools of the Information Society are computers and telecommunications.

In short, the term Information Society was proposed to refer to the post-industrial society in which information plays a pivotal role. The definitions that have been proposed over the years highlight five underlying characterisations of an information society: technological, economic, sociological, spatial, and cultural.

1. **Technological:** A rapid growth in information and communications technologies (ICTs) signals the emergence of an information society. ICTs both define and create the information society.

2. **Economic:** This suggests information and communication is one of the key economic activities that can even outweigh the contribution of agriculture and industry in terms of Gross National Product. Here information is also used as an economic resource. Organizations make greater use of information to increase their efficiency, to stimulate innovation and to increase their effectiveness and competitive position, often through improvements in the quality of the goods and services that they produce.

3. **Occupational:** An information society is one in which most jobs are informational. Thus occupations such as researchers, lawyers, counsellors, and teachers are information intensive, involving information production, analysis, and communication, and the outcome is a changed condition rather than an object.

4. **Spatial:** Here the stress is on networks along which information flows. Information networks have profound effects on the organization of time and space.

5. **Cultural:** An information society is one there is abundance of pervasive television, advertising, a plethora of lifestyles, multiple ethnicities, many hybridized musical expressions, the world wide web and so on.

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## 14.5 SURVEILLANCE SOCIETY

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New information technology and media offer the benefits of higher productivity, better crime prevention, improved medical care, dazzling entertainment and more convenience, but all at the cost of lesser and lesser privacy. One of the effects of living in an information society is to do away with the right to privacy. With the world becoming more and more technology centric, with almost every aspect of our lives being governed digitally, our personal lives are becoming more and more insecure in terms of privacy. Probably even without us realising, we are being watched and monitored all the time, and nothing can be said to be confidential anymore. We are living not only in an information society, but in a surveillance society as well.

In most parts of the world, surveillance societies have started to emerge. The Surveillance Studies Network (SSN)- an international research and information network on surveillance defines surveillance societies as societies which function, in part, because of the extensive collection, recording, storage, analysis and application of information on individuals and groups in those societies as they go about their lives. Retail loyalty programmes, website cookies, national identity schemes, routine health screening and no-fly lists all qualify as surveillance. Each features, in different measure, the routine collection of data about individuals with the specific purpose of governing, regulating, managing or influencing what they do in the future. This is a basic understanding of surveillance.

Simply put, a society where surveillance technology is widely used to monitor people's everyday activities is called a surveillance society.

The greatest threat to privacy today comes from the routine business of recording and collecting an ever-expanding number of everyday transactions. Advancement of new media is not only making it possible to collect information that once went largely unrecorded, but are also making it relatively easy to store, analyse and retrieve this information in ways which, until quite recently, were impossible.

Every day, we are giving away so many personal information; any spending that involves a credit or bank debit card, most financial transactions, telephone calls, all dealings with national or local government- everything gets recorded. Supermarkets record every item being bought by customers who use discount cards. Our smart-phones are the biggest means of our privacy being invaded. Electronic toll-booths and traffic-monitoring systems can record the movement of individual vehicles while closed-circuit TV cameras in public spaces are constantly recording our every move.

Although we are aware that our information is being collected and recorded, we have no clear idea about where is all these information going. We are often annoyed by unsolicited junk mail coming through our emails. However, junk mail is nothing in comparison to the volume of personal

data in both commercial and government databases that has grown by leaps and bounds in recent years along with advances in computer technology.

Governments are equally keen to collect personal data, as information is power- although they have many entirely legitimate reasons to do so—like tracking benefit claimants, delivering better health care, fighting crime, and pursuing terrorists. But it inevitably means more government surveillance.

India is among the list of countries where government surveillance has become a major concern from a data privacy perspective. According to the 2019 Forrester Global Map of Privacy Rights and Regulations: “Regulations that allow governments to access personal data of citizens are still undermining the overall privacy protections that certain countries offer their citizens.”

India has been named as a country with minimal restrictions in terms of data privacy and protection where government surveillance is a matter of caution alongside countries with high-level of government surveillance, such as China.

Although the bigger picture of national security remains, the danger of surveillance is that its application becomes taken for granted and its consequences go unnoticed. As citizens, it is important for us that that this power, based on the oversight of activities and of personal data, is wielded fairly, responsibly, and with due respect to human rights, civil liberties and the law.

### **ASSESS YOUR PROGRESS**

1. What are the characteristics of an Information Society?

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2. What do you mean by a surveillance society?

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## 14.6 WEB COMMERCE

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New media technologies have also transformed the face of trade and commerce in the world today. The growing popularity of Web Commerce/ E-Commerce or online marketing is changing the way people buy and sell things. It is only in recent years that online trade has started realising its potential as a result of growing users of the internet and user's increased trust in using the web as a platform for conducting commerce.

E-commerce or web commerce refers to the activity of electronically buying or selling of products on online services or over the Internet. Technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems are together making the system of web commerce so popular and successful today.

New media marketing plays a central role in the popularisation of web-commerce. New media technology is used in promoting brands and selling products and services through established and emerging online channels, harnessing these elements of new media to engage potential and current customers. New media marketing encompasses many different tools, including display advertising, content marketing and social media promotions. The objective of all new media marketing is to get consumers to interact with the brand, engaging them in a way that increases awareness and correlates to sales.

Some of the features of web commerce are discussed below:

**Ubiquity-** While the traditional commercial market is a physical place, where customers go to buy products- a store, in case of E-commerce the products could be anywhere and can be sent to the customer from a remote place.

**Global Reach-** Electronic commerce enables cross-country business transactions that are more convenient and more effective than traditional commerce. In e-commerce companies the potential market scale is roughly equivalent to the world population size network.

**Interactivity-** E-Commerce or web-commerce technology is characterised by interactivity among buyers and sellers. There is scope for buyer's reviews and comments as well as for sellers to reach out to their targeted group of buyers easily.

**Information Density-** E-commerce technology reduces the costs of collecting, archiving, communicating and processing information. At the same time, the accuracy and timeliness of information technology increases enormously, information is more useful, more important than ever.

**Personalization-** The technology of electronic commerce allows personalization. Businesses can be adjusted by a name, the interests of a person and the objects of previous shopping messages and the marketing message to a specific individual. The technology also allows customization. Merchants can change the product or service according to the user's preferences or previous behaviour.

## **ADVANTAGES AND DISADVANTAGES OF WEB COMMERCE**

With internet connectivity becoming faster, more easily accessible and availability of powerful online tools e-commerce or web commerce is taking over the trade market, revolutionising the experiences of business holders as well as that of consumers. But, web-commerce, like every other new media development, has its own share of advantages and disadvantages. Let us discuss them below:

### **ADVANTAGES**

- The buying-selling process becomes quicker and easier. It is now easier to navigate through websites for customers to find what they are looking for.
- Buying/selling can take place anytime 24x7.
- As there are no geographic limitations, more diverse and a wider range of customers can be reached out to.
- Operational costs are lower.
- There is no need of corporeal company set-ups.
- Customers get a wider range of options to choose from.

## **DISADVANTAGES**

- Since web-commerce allows the anonymity of the sellers, anyone could start a fraud business to cheat people of their money. Many websites often dupe customers with fake products.
- The biggest drawback of e-commerce is the issue of security. People fear to provide personal and financial information
- There are many websites which illegally collect statistics on consumers without their permission. Lack of privacy discourages people to use internet for conducting commercial transactions
- People have to rely on electronic images to purchase products. Sometimes, when the products are delivered, the product may not match with electronic images.

E-commerce or web-commerce is one of the most rapidly growing sectors, inspiring an entire generation of entrepreneurs, large scale manufacturing of small and medium-sized enterprises to join the movement. E-commerce has helped reduce barriers and bring the manufacturer closer to the customer. The presence of a virtual store on e-commerce websites has helped millions of business flourish in India and has led to more employment opportunities as well. The online shopping experience has become easier for customers with easy to use mobile apps with elaborate store catalogues.

India is one of the largest markets of e-commerce players. With giants like Amazon, Flipkart, Snapdeal, and Myntra, new entrants like PayTm Mall, Shopclues, etc are also establishing a strong hold in the Indian market.

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## **14.7 SUMMING UP**

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New technologies like mobile, website and internet which are interactive in nature have been put to use for development communication. Today, new media have become active tools in the run to development communication. The true potential of the media as the fourth estate is also gradually being unfolded; facilitated by the advent of social media platforms in recent times. By means of its immediate and amplified reach, social media has

transformed the way people interact with each other, and information and social awareness have emerged as important factors of human empowerment.

The widespread application of new media technologies across the world has turned the world into a global village and the most valuable commodity in this age is information, thus indicating the emergence of an information society. One of the effects of living in an information society is to do away with the right to privacy. We are living not only in an information society, but in a surveillance society as well. New media technologies have also transformed the face of trade and commerce in the world today. The growing popularity of web commerce/ e-commerce or online marketing is changing the way people buy and sell things.

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#### **14.8 QUESTIONS**

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1. How is the use of new media technologies advancing development in the society?
2. What is meant by an Information society?
3. What are the dangers of living in a surveillance society?
4. What are the advantages and disadvantages of web-commerce?

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#### **14.9 REFERENCES AND RECOMMENDED READINGS**

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