UNIT-5

CHAPTER 10

INTRODUCTION TO MULTIMEDIA

CONTENTS

10.0   OBJECTIVES:

After reading this chapter you will be able to:

- ➢ Define multimedia
- ➢ Identify the components of multimedia
- ➢ Classify multimedia
- ➢ Locate the application areas of multimedia
- ➢ Explain the architecture of multimedia

10.1   INTRODUCTION:

The audio-visual media has changes its face dramatically in the last few decades. The black-white monitor pictures have now become color monitor pictures. The sound has converted from mono to stereo and then to digital or Dolby digital. The picture quality has also improved. Now we can see frequently the use of animation in movies or the use of computer graphics in the advertisement or in celluloid. Now a day almost all the city children are familiar

with video games which has brought the virtual reality to our drawing room. If we are ask to describe all of these phenomena, what will be a single word to describe it? Multimedia! Yes that is the only world which can describe it. We can say this era as the era of multimedia. From cinema to advertisement, video magazine to cartoon, video games to television show. Multimedia is every where and we believe that the scope of multimedia will increase day by day as our society will go ahead.

10.2 Definition of Multimedia:

Multimedia means multiple media i.e., Multimedia can be defined as the technology of incorporation of different media namely text, audio, graphics, animation and video.
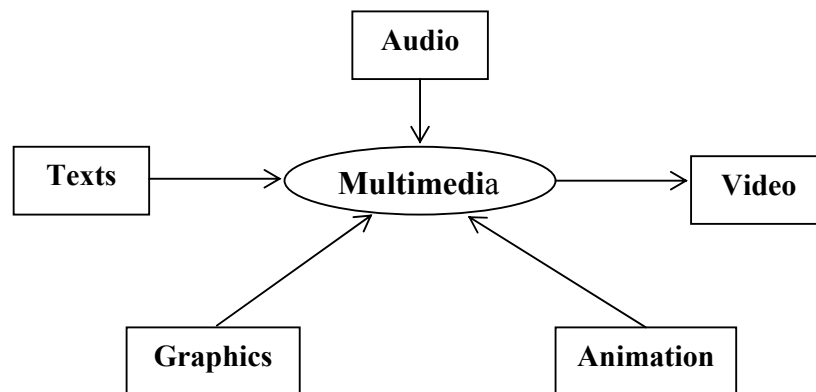
10.3 COMPONENTS OF MULTIMEDIA:

Fig-10.1: Different Components of Multimedia

There are mainly five components of multimedia. These are –

(i) Video
(ii) Texts
(iii) Audio
(iv) Graphics
(v) Animations

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Video: Video elements mean the motion pictures. Generally video are taken by move camera and then they are displayed in the video screen.

Texts: Texts are used to give information to the viewer in message form. Several colors and fonts are used for text message. This is punched with video to give effective thing to the users.

Audio: Speeches, sound etc are incorporated in the audio visual system to make the attractive and effective.

Graphics: Graphics are very important part of multimedia. Graphics create several objects artificially with different color to make the scene beautiful.

Animations: Animation is one of the important parts of multimedia. It gives the movement to the artificially created objects.

10.4 CLASSIFICATION OF MULTIMEDIA:

Multimedia can be classified in two different ways. One is interactive Vs Non interactive and the other is Entertainment Vs Education.
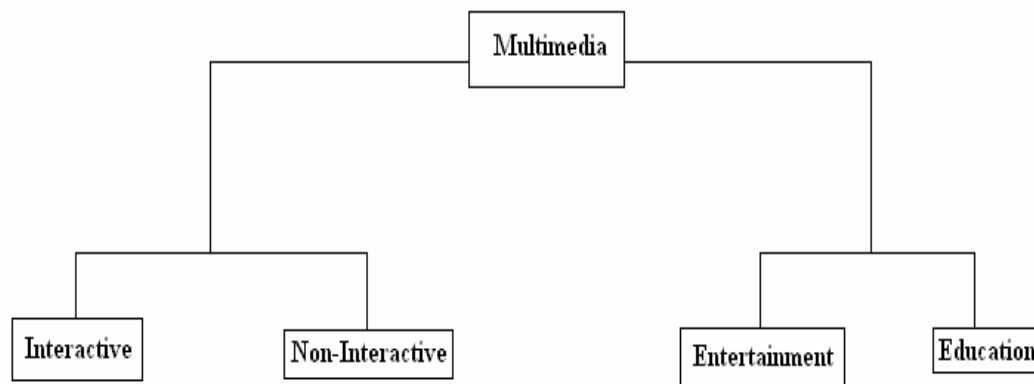

Fig-10.2: Classification of Multimedia

Interactive Vs Non-Interactive Multimedia:

In one sense, multimedia can be divided into two parts– Interactive and non-interactive. Interactive means where user can take part in the process.

Example is playing games etc. In non-interactive system, on the other hand, user can't do anything other than watching the process. Example is an animated movie.

Entertainment Vs Education Multimedia:

Another view of multimedia classifies multimedia into two categories i.e., Entertainment multimedia and Education multimedia. All the animated movies, games etc comes under entertainment multimedia. Edutainment means education through entertainment. So all those multimedia applications, that try to educate people through entertainment are called education multimedia of edutainment.

10.5 APPLICATIONS OF MULTIMEDIA:

Multimedia is used in wide number of fields. It is used in Graphical user interface (GUI) of computer system. It is used in image processing and image management. It is used in advertisement media, Tele-media, in cinematography. In games, animated movies, cartoon films etc. now a day distance education is gaining popularity. The lecture videos are prepared for distance education students using multimedia. In business, people are using multimedia to demonstrate their projects or products. Multimedia is used in medical field also for diagnostic purpose. There are other several fields where people are using multimedia successfully.

10.6 ARCHITECTURE OF MULTIMEDIA SYSTEMS:

Multimedia encompasses a large variety of technologies as well as large variety of hardware and software. These technologies, hardware and software are categorically placed into a few segments which defines the architecture of the multimedia system. Following is the figure of the architecture of multimedia system.

Application	
GUI	Multimedia Extension
OS	Multimedia S/W Drivers
Multimedia Enabled H/W	Extended Multimedia Devices

Fig-10.3: Architecture of Multimedia System

There are two important factors about the architecture of multimedia. One is that the multiple software should be compatible with the standard Operating Systems like Windows, LINUX, UNIX etc and the second one is that all the hardware devices should have drivers compatible with the Operating System. The nature of the hardware should be plug and play as far as possible.

10.7: KEY WORDS:

- Animation
- Audio
- Edutainment
- Entertainment
- Multimedia

10.8 SAMPLE QUESTIONS:

10.8.1 Define Multimedia

10.8.2 Identify the different components of multimedia

10.8.3 Describe each of the following parts of a multimedia system

      (i)   Video

      (ii)   Text

(iii)   Graphics

(iv)   Animation

10.8.4 What do you mean by entertainment and edutainment? Explain.

10.8.5 What are interactive and non-interactive multimedia systems? Explain with suitable examples.

10.8.6 Draw a block diagram to describe the architecture of a multimedia system.

10.8.7 What are the different application areas of multimedia?