

18MCA41C – COMPUTER GRAPHICS AND MULTIMEDIA

Unit 4 – FUNDAMENTALS OF MULTIMEDIA

FACULTY

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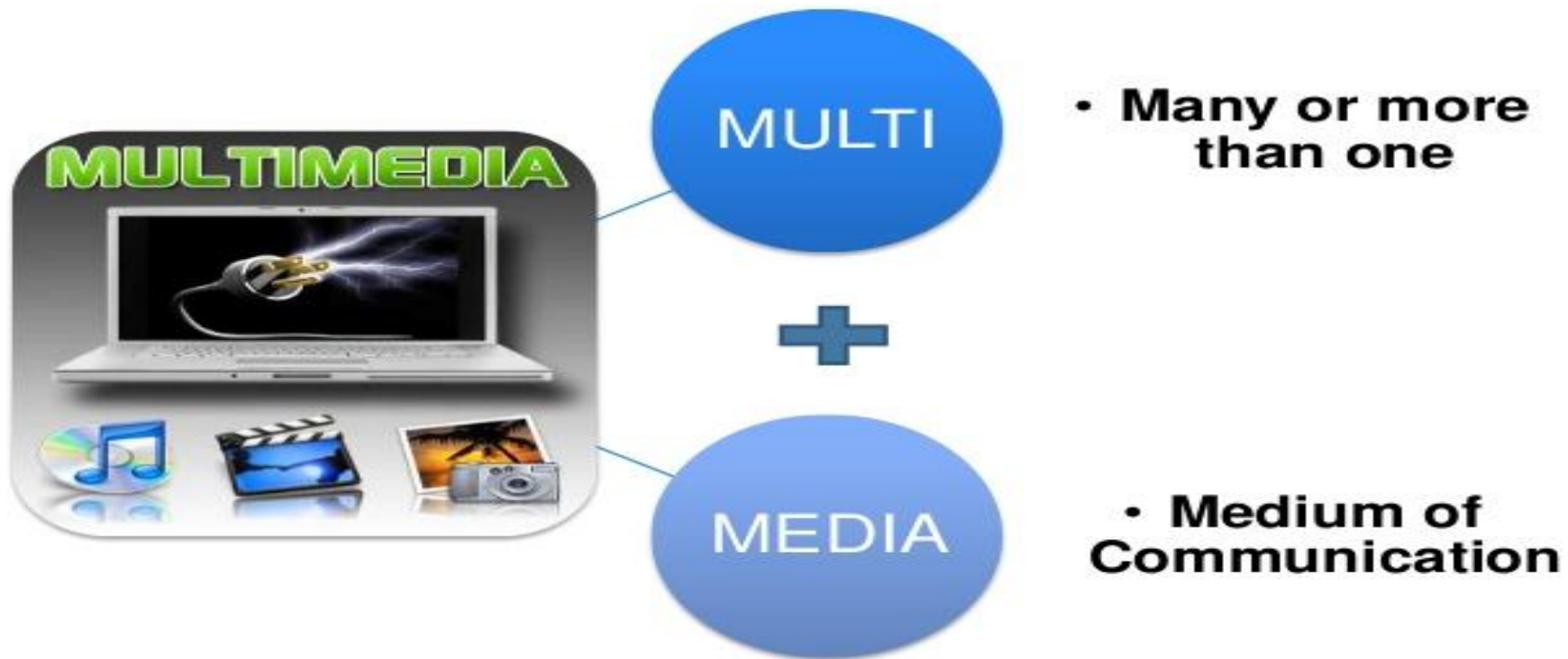
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WHAT IS MULTIMEDIA ??



MULTIMEDIA..

- **Multimedia** is media and content that uses a combination of different content forms.
- The term is used in contrast to media which only use traditional forms of printed or hand-produced material.
- Multimedia includes a combination of
 - Text
 - Audio
 - Still images
 - Animation video
 - Interactivity content forms.



History

- The term “**MULTIMEDIA**” was first used by **BOB GOLDSTEIN** in July 1996 to promote opening of his light works.
- In 1970s the term was used to describe presentations consisting of multi-projector slide shows timed to an audio track.
- In 1990s ‘multimedia ‘ took on its current meaning.
- **TAY VAUGHAN** declared “Multimedia as combination of text, graphic art, sound, animation, and video that is delivered by computer.



CONTD..

- In common usage, the term multimedia refers to an electronically delivered combination of media including video, still images, audio, text in such a way that can be accessed interactively.
- Computers marketed in 1990s were referred to as “**MULTIMEDIA COMPUTERS**” because they contained a CD-ROM drive.



types

LINEAR MULTIMEDIA	NON-LINEAR MULTIMEDIA
<p>Linear active content progresses without any navigational control for the viewer.</p>	<p>Non-linear content offers user interactivity to control progress as used with a computer game .</p>
<p>Cinema presentation is an example of linear multimedia.</p>	<p>Hypermedia is an example of non-linear multimedia.</p>



characteristics

➤ Multimedia formats include



- The following extensions commonly used to lay up multimedia documentation:
 - MOV
 - MP4
 - 3GP
 - VOB
 - FLV.
- Files with augmentation **MOV** are used to lay up capture on film and song in order.
- **MP4** is fundamentally identical to MOV format and lone differs by provided that roughly added metadata.
- MP4 put on record augmentation is supported by multiple applications with Apple iTunes, XBox 360.



CONTD..

- **MPEG** is a align of compressions methods designed for audio and visual data.
- **3GP** on PC may perhaps be viewed VLC media player, RealPlayer, QuickTime, GOM Player and Media Player Classic.
- File Extension **VOB** (Video Object) is commonly locate such documents in DVD-Video media.
- File Extension **FLV** is used to deposit Macromedia Flash Player collection. It can assign vector graphics, spill videocassette, audio and text.



Features of multimedia

- Text
- Audio
- Pictures
- Video
- Animation
- Interactivity



TEXT

- Text is the most widely used and flexible means of presenting information on screen and conveying ideas.
- Text is an essential aspect of presenting the information.
- Like each element of the multimedia design, effective use of text can either direct users/readers attention or divert it.



AUDIO



- Audio refers to sound. Multimedia can include files which contain sounds.
- Audio songs also come under the heading multimedia.
- Multimedia presentations often have some audio tracks which makes it easier for people to understand.
- Multimedia phones have music players to run audio music.
- Various audio software include VLC media player, real player, etc.



PICTURES



- Pictures(images) is a two-dimensional screen display, and as well as a three-dimensional, such as a statue or hologram.
- Graphs, pie-charts, painting etc. all come under images.
- Images are a very useful feature of multimedia. Multimedia presentation uses pictures or clip-art to make people understand.
- Various file formats of images are .jpg, .png, .gif etc.



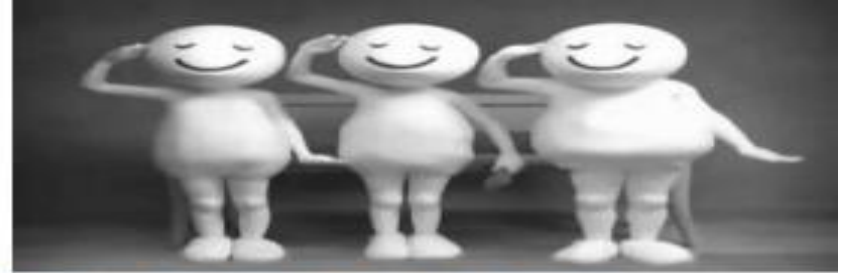
VIDEO



- A video is unedited material as it had been originally filmed by movie camera or recorded by a video camera.
- The embedding of video in multimedia applications is a powerful way to convey information which can incorporate a personal element which other media lack.
- Video enhances, dramatizes, and gives impact to your multimedia application.
- The advantage of integrating video into a multimedia presentation is the capacity to effectively convey a great deal of information in the least amount of time.



ANIMATION



- **Animation** is the rapid display of a sequence of images of 2-D or 3-D artwork or model positions in order to create an illusion of movement.
- The effect is an optical illusion of motion due to the phenomenon of persistence of vision.
- Animation adds visual impact to the multimedia project.
- Animation are used in cartoons, scientific visualization.



INTERACTIVITY



- Interactivity can be termed as the dialog that occurs between an individual and a computer program.
- Interactive multimedia refers to the multimedia applications that allow users to actively participate rather than being passive recipients of information.
- Technologies such as DVDs and digital TV are classic examples of interactive media devices, where a user can control what they watch and when.



CONTD..

- Interactivity also relates to new media art technologies where humans and animals are able to interact with and change the course of an artwork



MULTIMEDIA TODAY

- Multimedia and its related applications have almost become synonymous with modern technology; given the kind of explosion the technological realm has seen.
- Multimedia makes our life easier several times fold. It is through multimedia that mobile phones can be used for a number of purposes.



SCOPE OF MULTIMEDIA

- The technology of multimedia design utilizes various features like animation, video, graphics, audio and sound to impress the users.
- Multimedia technology is used for 3D cinema applications and mobile 3DTV environments.
- Animation is also being used in titling films, creating special effects or in web entertainment programs. Thus scope of animation is huge in context to market.



- In the field of education multimedia is being used extensively especially for online courses and trainings.
- Multimedia is also used in advertising purposes.



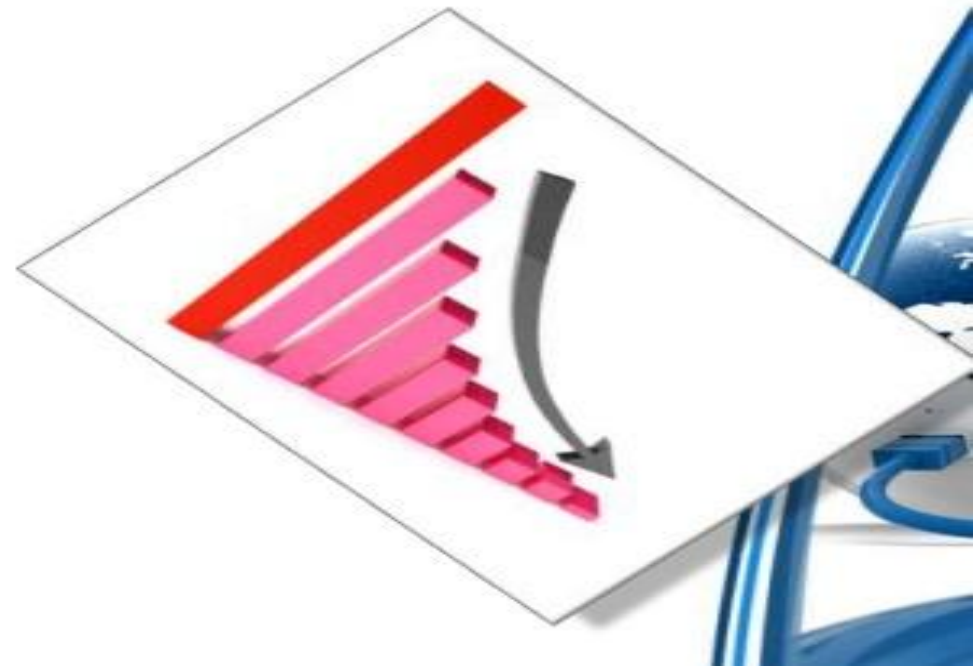
ADVANTAGES

- Multimedia enhances the effect of text presentations.
- Improves the quality of presentation and retains the attention of audience.
- It can be used for educational as well as entertainment purpose.
- It is quick and easier to operate for the instructor.
- Multimedia presentations can be modified very easily.
- Multimedia is Entertaining as Well as Educational.



Dis-advantages:-

- Non-interactive – if one-way, no feedback.
- Complex to create.
- Time consuming.
- Use of multimedia is expensive.



Uses

➤ COMMERCIAL

- Much of the electronic old and new media used by commercial artists is multimedia.
- Exciting presentations are used to grab and keep attention in advertising.



➤ ENTERTAINMENT AND FINE ARTS

- Multimedia is heavily used in the entertainment industry, especially to develop special effects in movies and animations
- Multimedia games are also very popular.

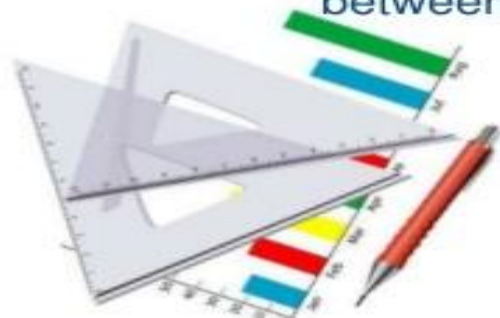


➤ EDUCATION

- Multimedia is used to produce computer-based training courses.
- Edutainment is an informal term used to describe combining education with entertainment, especially multimedia entertainment.

➤ ENGINEERING

- Software engineers may use multimedia in Computer Simulations.
- Multimedia for software interfaces are often done as a collaboration between creative professionals and software engineers.



- Design could benefit tremendously from open and collaborative multimedia research.
- Multimedia and graphics can be a very effective tool to communicate, educate, compel, and convince you and/or your audience.
- Multimedia can help to gain and hold attention, make points clearer, stimulate discussion, and in general, enhance the learning process, if it also includes the appropriate human elements.



THANK YOU

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prescribed in the syllabus.**