


MPT 1203: TECHNOLOGY AND MEDIA DESIGN

# INTRODUCTION TO MULTIMEDIA



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## What is Multimedia

- ❖ Multimedia has many different meanings to many different people. To some, multimedia means their computer has a CD-ROM and can play audio & video.
- ❖ Some defines multimedia as using a combination of elements to create a dynamic, visual presentation that catches the viewer's attention and maintains their interest throughout the presentation

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## What is Multimedia

### Multi

- ❖ refer to many or multiple

### Media

- ❖ Tools used as the medium of communication (such as newspaper, radio and television).
- ❖ Store and manipulate information in many different forms.
- ❖ Multimedia-many media : the simultaneous use of data from multiple sources of elements of media.

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## What is Multimedia

### Definition multi-media (Original):

- ❖ Multimedia means using two or more media for a presentation, such as videos and slides.

### Definition Multimedia (2<sup>nd</sup> version):

- ❖ Multimedia refers to computer-centered presentation that combines elements of photo, video, text, graphics, audio and animation

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## What is Multimedia

### Definition multimedia (Latest):

- ❖ Computer-based interactive communications process includes the use of text, graphics, audio, video, and animation
- ❖ Using multimedia, then, is simply using a variety of media, whether visual or auditory, with the intent of communicating.

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## Elements of Multimedia

- ❖ Text
  - ❖ Graphics
  - ❖ Audio
  - ❖ Video
  - ❖ Animation
  - ❖ Interactivity
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- ❖ *Because a photo is worth a thousand words...*
  - ❖ *Because an animation and video is worth a thousand graphics...*

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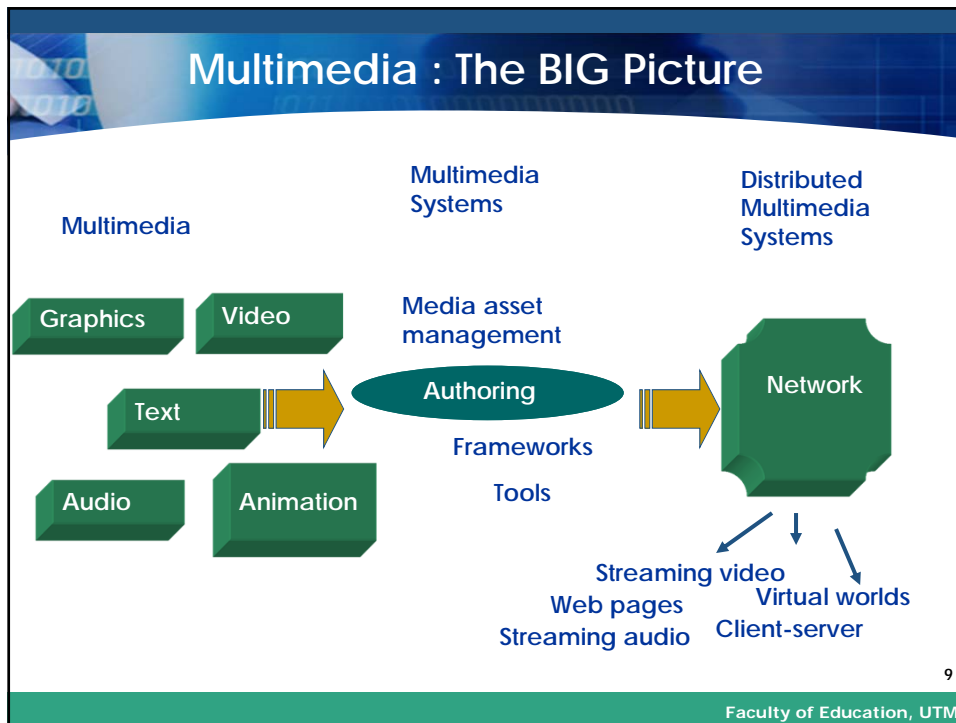
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## Categorization of multimedia

- ❖ Multimedia may be broadly divided into linear and non-linear categories.
- ❖ Linear active content progresses often without any navigational control for the viewer such as a cinema presentation.
- ❖ Non-linear uses interactivity to control progress as with a video game or self-paced computer based training.

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- ## Multimedia : The BIG Picture
- ❖ **Multimedia :**
    - Computer-based interactive communications process includes the use of text, graphics, audio, video, and animation
  - ❖ **Multimedia Systems**
    - encompass the computer and software systems that are used in multimedia environments
    - Interactive control
  - ❖ **Distributed multimedia systems**
    - operate over some form of network infrastructure
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## Multimedia Product : Characteristics

- ❖ Information present on a computer-based media. Without this feature → Polymedia or Mixed Media
- ❖ Links. Without this feature → Book
- ❖ Navigation tools (icon, button, hot spot, etc).
- ❖ Interactive presentation. Without this feature → Conventional Television

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## HISTORY OF MULTIMEDIA (TECHNOLOGY DEVELOPMENT)



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## History of Multimedia

- ❖ Multimedia only gaining attention in recent years because of previous computer did not reach the level of capability and reasonable price as now.



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## History of Multimedia

1975

- ❖ Low-power processors, monochrome screen.
- ❖ used primarily for the purpose of accounts and inventory management.

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## History of Multimedia

**1980**

- ❖ began the era of hard disk in the form of disk storage and a simple graphical display.
- ❖ used primarily in the areas of forecasting & statistics.

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## History of Multimedia

**1995**

- ❖ The ability to display digital video, audio, animation and text into a software and hardware package.
- ❖ The ability to share information via telecommunications and computer networking.
- ❖ Computer simulations, Internet, communication and presentation.



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## History of Multimedia

1999

- ❖ Multimedia began to reach its peak when the storage space and increasing computer speed and its size and the price has dropped.

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## History of Multimedia

2005

- ❖ All computers are equipped with multimedia capabilities. CD-RW, DVD-ROM, the ability to display graphics, video, audio and high-quality animation and so has become common.
- ❖ Nowadays, Internet connections are more stable and faster. This provides more opportunities in using multimedia technologies



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## History of Multimedia

2010-2015

- ❖ Web based multimedia, streaming media, virtual reality, **mobile media**, **social media**, **immersive multimedia**, **augmented reality** and many others..



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## IMPORTANCE OF MULTIMEDIA



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## Importance of Multimedia

**Stimulating & Efficient Format**

- ❖ Interactivity in multimedia permits self-paced learning adapting to individual's skills and motivation

Method	Percentile of Learners Achieving Mastery of Subject
Conventional Methods	50%
Interactive Methods	75%

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## Importance of Multimedia

**Effective Communication of Information**

- ❖ The dynamics of sound, video, and animation are powerful supplements when added to text and graphics.

The collage features a clapperboard and film reels on the left. On the right, several overlapping presentation slides are shown. The top slide is titled 'Classifying Ecological Systems' with the subtitle 'Describing Terrestrial Biomes'. Below it is a slide titled 'Algae' with the subtitle 'Algal Systematics and Evolution', which includes a world map and text about 'The nine taxonomic groups of algae'. The bottom-most slide is titled 'What is Biodiversity?' with the subtitle 'Aspects of Asian Biodiversity', featuring a grid of images of various Asian species and a navigation menu with buttons for 'Contents', 'Introduction', 'Algae', 'Diversity', 'Evolution', 'Taxonomy', 'Systematics', 'Phylogeny', 'Biogeography', and 'Conservation'.

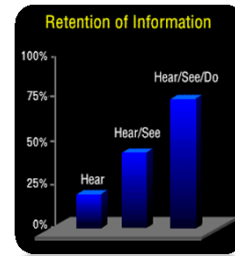
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## Importance of Multimedia

### Better Retention of Information

- ❖ Interactivity gets the viewer involved at a self-directed pace allowing the information to make optimum impact.
- ❖ Retention of Information :
  - 20 % of what we hear
  - 40 % of what we see and hear
  - 75 % of what we see, hear and do



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## WHY Multimedia ??

- ❖ Ease of use
- ❖ Intuitive Interface
- ❖ Immersive Experience
- ❖ Self-Paced Interaction and Better Retention
- ❖ Better Understanding of the Content
- ❖ Cost Effectiveness
- ❖ More Fun = Greater Efficiency

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