



CHAPTER 1 : INTRODUCTION TO MULTIMEDIA

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INTRODUCTION TO MULTIMEDIA

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- **Benefits/Advantages of Using Multimedia**

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APPLICATIONS / IMPORTANCE OF MULTIMEDIA

- **Home**
- **Business**
- **School**
- **Public Places**
- **Virtual Reality**



LESSON OUTCOMES

Upon completion of this chapter, students should be able to:

- **Define** basic **terms** and concepts related to **multimedia technologies**
- **Distinguish** between the types of **linear** and **non-linear** multimedia systems
- Identify **various applications** of multimedia

INTRODUCTION TO MULTIMEDIA

DEFINITION OF MULTIMEDIA



- 1 Multimedia is a **combination** of **text**, **graphic**, **sound**, **animation**, and **video**.
- 2 It is **delivered** to the user by **electronic** or **digitally** manipulated means.
- 3 A multimedia project development requires **creative**, **technical**, **organizational** and **business skills**.

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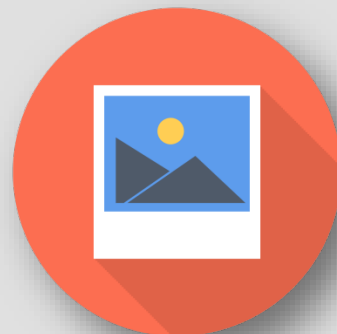
MULTIMEDIA IS A COMBINATION OF : **(ELEMENTS)**



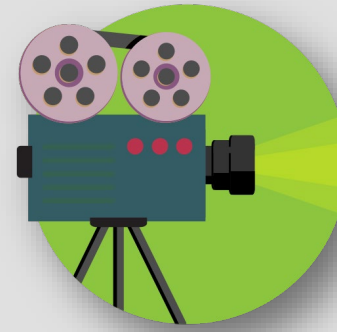
TEXT



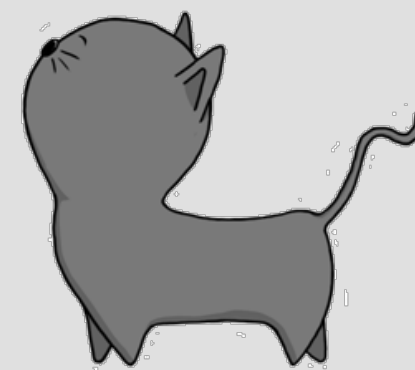
SOUND



GRAPHIC



VIDEO



ANIMATION

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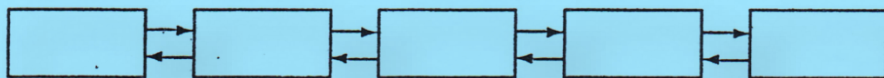
- Multimedia becomes **interactive multimedia** when a **user** is given the **option of controlling the elements**.
- Interactive multimedia is called **hypermedia** when a user is provided a **structure of linked elements** for navigation.
- **Multimedia developers** develop multimedia projects.

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TYPES OF MULTIMEDIA PROJECTS

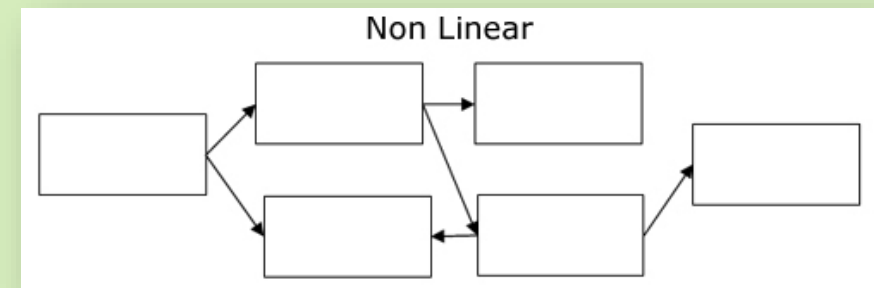
LINEAR MULTIMEDIA

- Projects that are **NOT interactive**.
- Users have **very little control** over the presentation
- Example :
 - **Movie**
 - **Promo video**
 - **Non-interactive lecture notes**



NON-LINEAR MULTIMEDIA

- Projects that are **interactive**.
- Users **have control** over the presentation
- Example :
 - **Games**
 - **Online quizzes**
 - **Interactive CD**



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TYPES OF MULTIMEDIA PROJECTS

LINEAR MULTIMEDIA



- The users sit back and watches the presentation.
- The presentation normally **plays from the start to end** or **even loops continually to present the information**.
- A **movie** is a common type of linear multimedia.

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TYPES OF MULTIMEDIA PROJECTS

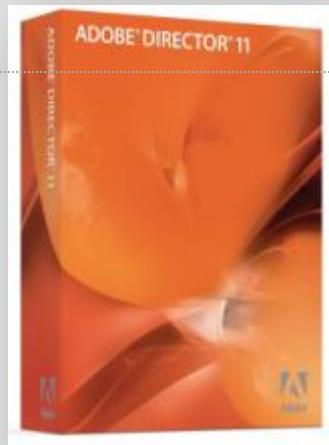
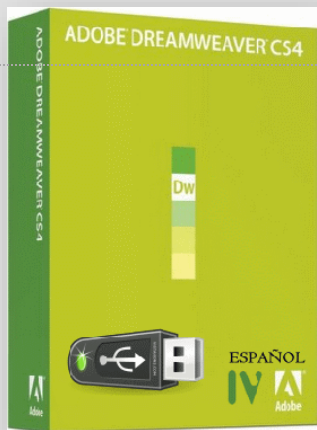
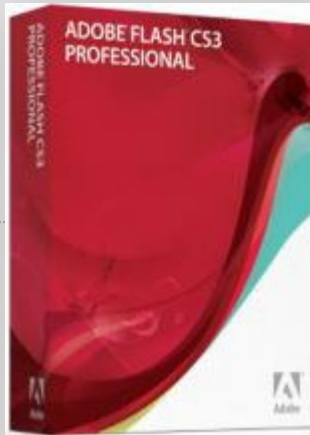
NON-LINEAR MULTIMEDIA



- Users have the ability **to move around** or **follow different path** through the information presentation.
- **Advantage:** **complex domain** of information can be presented.
- **Disadvantage:** users might lost in the massive "**information highway**".
- Useful for: **information archive (encyclopedia)**, education, training and **entertainment**.

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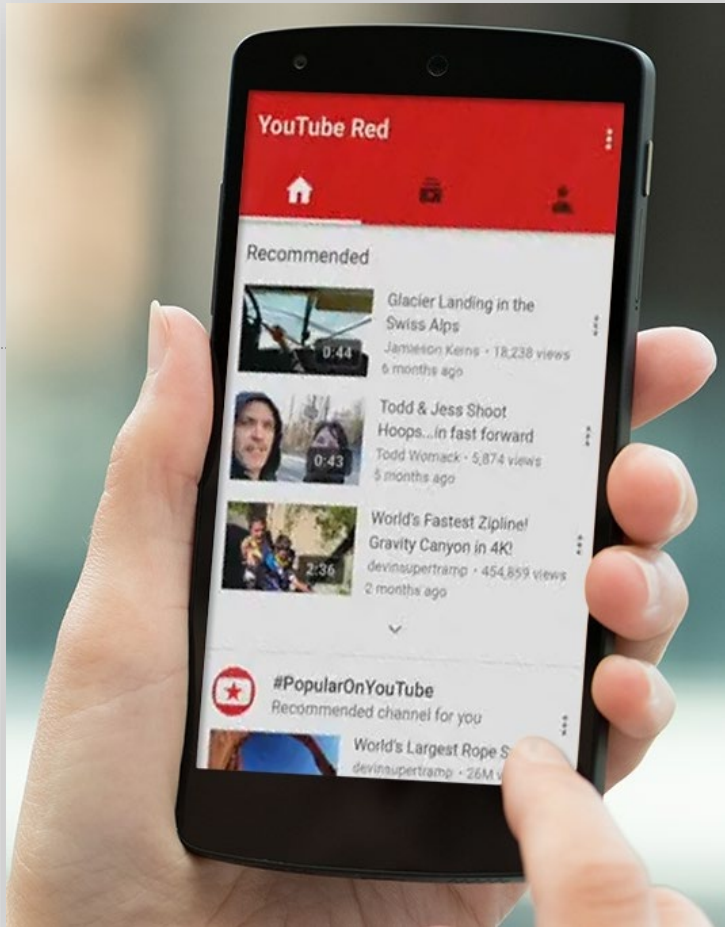
MULTIMEDIA **AUTHORING TOOLS**



- **Authoring tools** are used to merge multimedia elements into a project.
- These software tools are designed to **manage individual multimedia elements** and provide user interaction.
- **Examples :**
 - Macromedia **Authorware**
 - Macromedia **Director**
 - Macromedia **Flash**
 - Microsoft **Power Point**

INTRODUCTION TO MULTIMEDIA

DELIVERING MULTIMEDIA



- Multimedia Projects can also be delivered **online (webs)** and through **PDA's/Hand-held Devices**.
- The **primary media** for delivering multimedia projects are:
 - **Compact disc read-only (CD-ROM)**
 - **Digital Versatile Disc (DVD) / Blu-ray disc (BDA)**

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DELIVERING MULTIMEDIA

CD-ROM



- The most **cost-effective distribution medium** for multimedia projects.
- It can contain up to **80 minutes** of full-screen video or sound

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DELIVERING MULTIMEDIA

DVD



- The **Multilayered DVD** technology increases the capacity of current optical technology to **18 GB**.
- DVD authoring and integration software is used **to create interactive front-end menus for films and games**.
- Both **CD and DVD burners** are used for **reading discs** and **converting the discs to audio, video, and data formats**.

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DELIVERING MULTIMEDIA

BLU-RAY DISC



- **Blu-ray disc (Blu-ray Disc Association BDA)** is next-generation format for high-definition video and high-density data.
- A **single-layer disc can fit 23.3, 25, or 27 GB** (enough for approximately four hours of high-definition video with audio).
- It supports **25GB** for one layer, **50GB** for two and **100GB** for four.

WHY MULTIMEDIA?

BENEFITS/ADVANTAGES OF MULTIMEDIA

Ease of Use

Intuitive
Interface

Immersive
Experience

Self-paced
interaction and
better retention

Better
Understanding

Cost
Effectiveness

APPLICATIONS/IMPORTANCE OF MULTIMEDIA

HOME



Most multimedia projects reach homes via **television sets** or **monitors** with built-in user inputs.

Other applications

Video On Demand
(VoD)

Satellite TV

Games

Home
Shopping

APPLICATIONS/IMPORTANCE OF MULTIMEDIA

BUSINESS

Business applications for multimedia include:

Applications



Marketing

Advertising

Training Presentations

Product
Demonstration

Online
Catalogs

APPLICATIONS/IMPORTANCE OF MULTIMEDIA

SCHOOL

Educational software can be developed and used to enrich the learning process.



Applications

Courseware

Simulation

e-Learning/open
learning

Instructional
Videos

Info searching

APPLICATIONS/IMPORTANCE OF MULTIMEDIA

PUBLIC PLACES

Multimedia will become available at stand-alone terminals or kiosks to provide information and help.

Applications

Information Kiosks

Check-in kiosks

ATMs



APPLICATIONS/IMPORTANCE OF MULTIMEDIA

VIRTUAL REALITY



- Virtual reality is an **extension of multimedia**.
- It uses the basic multimedia elements of **imagery**, **sound** and **animation**.
- It requires **terrific computing horsepower** to be realistic.

APPLICATIONS/IMPORTANCE OF MULTIMEDIA

VIRTUAL REALITY



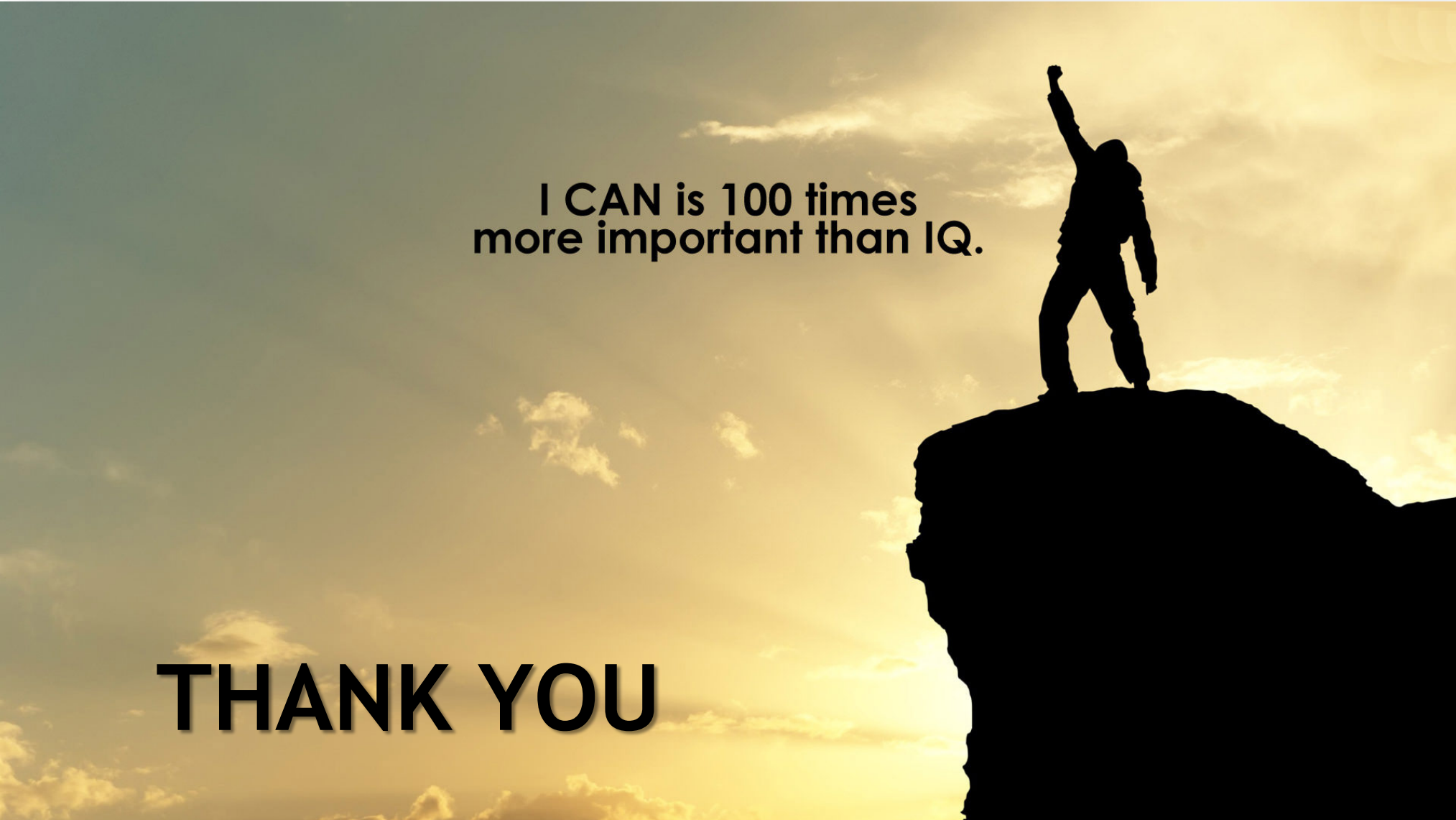
- In VR, cyberspace is **made up of thousands of geometric objects** plotted in **three-dimensional space**.
- The standards for transmitting VR in **Virtual Reality Modeling Language (VRML)** documents have been developed on the World Wide Web.
- VRML documents have the file extension **.wrl**.



SUMMARY

We have gone through...

- Multimedia is a combination of **text, graphic, sound, animation, and video**.
- There are **two types of multimedia projects** : **linear** or **nonlinear**.
- Multimedia projects are often stored on **CD-ROM** or **DVDs**. They can also be **hosted on the Web**.
- Multimedia is widely used in **business, schools, public places**, and at **home**.
- **Virtual reality** is an extension of multimedia



**I CAN is 100 times
more important than IQ.**

THANK YOU