Introduction To Multimedia
CT801-4-0-OIMA

Applications of Multimedia

Topic & Structure of the lesson

Benefits of using Multimedia Applications

The application of multimedia in:

Business and Industry
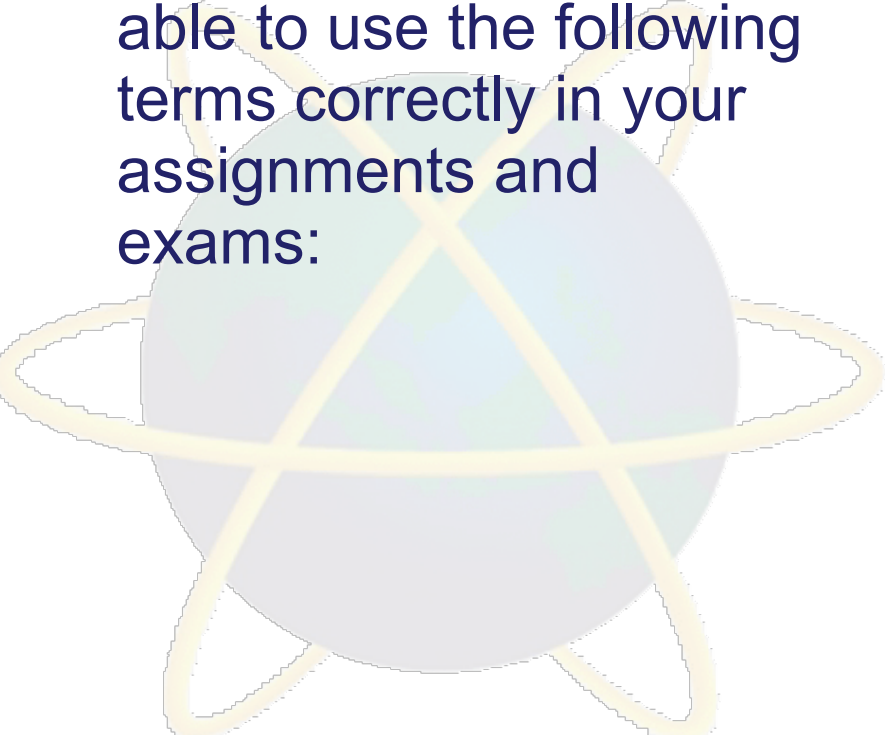Government
Health Sector
Entertainment

Learning Outcomes

At the end of this lecture you will be able to:-

Identify and discuss the application areas of Multimedia Application

Key Terms you must be able to use

If you have mastered this topic, you should be able to use the following terms correctly in your assignments and exams:

Virtual Reality

Video Games

Public Service Kiosks

Benefits of Using Multimedia

Business:
- Information can be converted to dynamic charts, illustrations and colorful graphics

Education and training:
- Computer-based training in CD enable people learn in their own time and pace.

Marketing and sales:
- Electronic catalogues allow companies to send electronic versions of their catalogues to households, increasing exposure of their products and increasing sales by making the shopping process easier.

Application
(Business and Industry)

(A)   Interactive Multimedia Merchandising

- Permit user to do comparison shopping without having to spend all day visiting different stores

(B)   Virtual Shopping

- An online shopping
- A touch-screen kiosk provides online access to dozens of stores
- Can be multilingual
- Recognizes worldwide monetary standards
- A lot graphics and audio
- Can shop from home through *America Online*, and *CompuServe*

Application
(Business and Industry)

(C)   Multimedia Travel Systems

- **Can show a customer about where they will travel, what their accommodations will be like, and what they will be able to do at their destination**

(D)   Real Estate

- **Enable buyers to visit hundreds of properties virtually, view on-screen photos of homes, inspect floor plans, see street maps, and study neighborhood demographics to minimize the number of actual visits required**

(E)   Corporate Training

- **Use multimedia to simulate a live situation**

Application
(Business and Industry)

(F)   Just-In-Time Training

- **Guides employees step-by-step**
- **Help factory workers diagnose and fix production line problems**
- **After the computer performs the diagnosis based on input from workers, appropriate video sequences with instructional commentary show the workers how to correct the problem**

(G)   Pilot Training

- **Reducing the amount of time pilots spend in expensive flight simulators**

Application
(Business and Industry)

(H)　　Advertising and Electronic Brochures

- **A promotional and marketing tool usually consists of a single diskette or CD-ROM**
- **An effective way of advertising**
- **User can design their own car package, get company, history, view customer's testimonials**

(I)　　Mass Market Applications

- **For Entrepreneurs**
- **For example, nearly everyone is concerned about their appearance, multimedia helps user decide what hairstyle suits user best.**

Application
(Education)

(A)   Art

- **The ability of computer to display more than 16 million colours lets computers exhibit artwork in true colours that rival those on the printed page**

(B)   Biology

- **Multimedia bring classrooms to life with animations, full-motion video clips, and stereo sound**
- **Example: Encyclopaedia of Mammalian Biology**

Application
(Education)

(C)   Chemistry

- Problems in teaching chemistry: Students do not get enough time in the lab for experiments; Schools cannot provide quality lab. Use mm applications to

(D)   Foreign Languages

- Digital audio gives them pronunciation capabilities
- Full motion video can put students in real life situations

(E)   Geography

- Highly visual nature of geography
- Example: Picture atlas of the world

Application
(Education)

(F)   History

- History textbooks on CD-ROMs can have video and audio clips with full text search
- Example: The Video Encyclopedia of the 20th Century

(G)   Music

- The music industry has been so totally transformed by multimedia technology
- Can learn about computer music applications, including music recording, editing, arranging, and printing
- E.g, MidiSoft's music Mentor with Recording Session
- Students learn about musical style, melody, rhythm, orchestration, tempo, and accompaniment from the interactive tutorials in MusicMentor

Application
(Entertainment)

(A)   **Video Games**

- **Example: Video arcades**

(B)   **Interactive Movies**

- **Let the viewer influence how the story unfolds**
- **Example: Voyeur (The first interactive movie)**

(C)   **Virtual Reality**

- **The use of a computer to immerse the user into a simulated experience so authentic it seems real**
- **Use Special hardware: Visual displays (monitors, headmounted viewing goggles, periscope booms, and direct eye scanning), tracking devices (data gloves, joysticks, body suits, or infrared tracking), and mobility devices (motion platforms, treadmills, stationary bicycles, and flying mice that let users move in a 3-D space)**

Application
(Government)

(A)   Public Service Kiosks

- Offer citizens and travelers the ability to find information on addresses, points of interest, shops, restaurants, public transportation, opening hours, guided tours, and the cost and location of tickets, buses, museums, and events
- Set up in public areas like train stations, monuments, and other frequently visited places
- Connected to a network that updates them simultaneously
- Example: In Malaysia we are using multimedia kiosks to provide a wide range of government services

(B)   Electronic Town Meetings

- Telephones are used to provide interactivity during television broadcasts from government officials to their constituents
- Number of people who can phone in is limited by the length of the broadcast

(C)   Warfare

- The Gulf War demonstrate how effectively multimedia can wage war
- In control of a smart bomb, users are seated at a multimedia computer aiming a laser that steers the bomb
- Sowing precisely where it is headed

Application
(Medicine and Nursing)

(A)   Medical Training

- **Example: American Heart Association Cardiac Life Support training system developed by Actronics**
- **Providing patients, doctors, and nurses with interactive health care training and medical references**
- **Topics include AIDS education, anatomical studies of various body physiologies, intravenous therapy, and procedures, emergency care**

(B)   Anatomy and Physiology

- **Example: The A.D.A.M. (Animated Dissection of Anatomy for Medicine) CD**
- **Combines interactive tools with superbly rendered color images of human anatomy**
- **Layer by layer, structure by structure, users can slice through tissue to simulate surgical incisions, zoom in for a closer look at muscles and nerves, rotate views, and explore histology**
- **Can observe the human structure in remarkable detail in the 3D animations**

(C)   Virtual Surgery

- **A virtual reality technique that simulates surgical procedures without the need of a patient or cadaver instead it allows the surgeons to practice surgery on 3D models.**

Quick Review Question

01

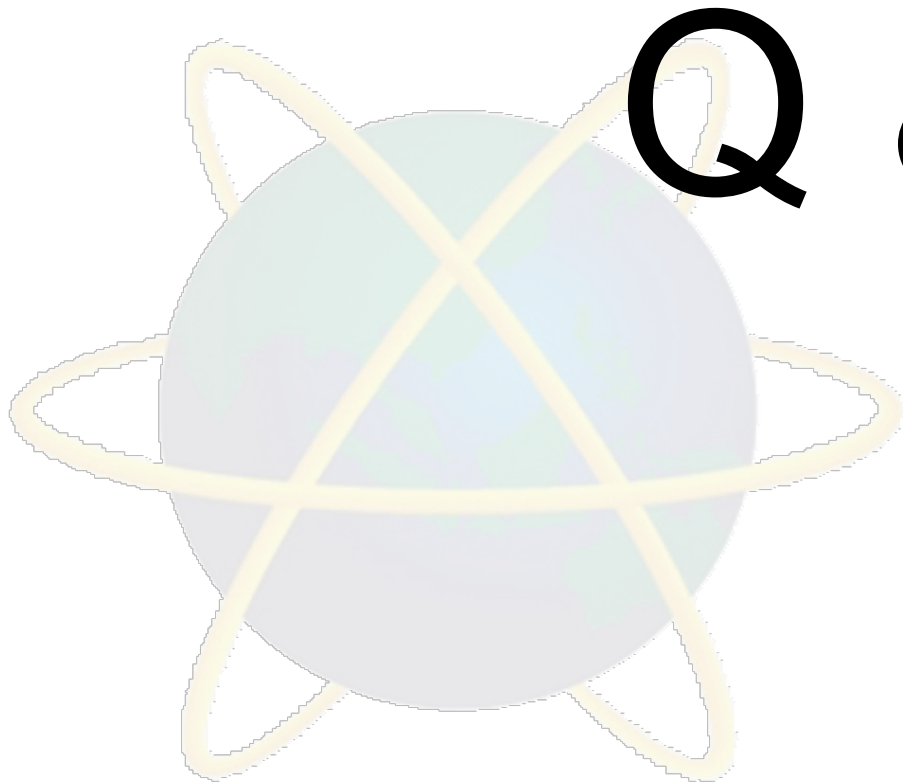Name 3 application area of Multimedia Application

02

List how multimedia is used in the medical area

03

List how multimedia is used in Education

Q & A

Next Session

Hardware and Software in Multimedia