Chapter 1

Introduction to Multimedia

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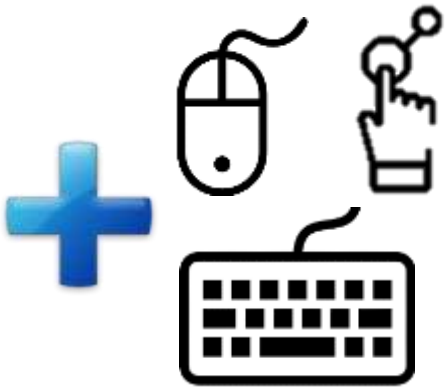
.: Definition

- Multimedia is a representation of information in an attractive and interactive manner with the use of a combination of text, graphics, audio, video, and animation.
- It is delivered to the user by electronic or digitally manipulated means.
- A multimedia project development requires creative, technical, organizational, and business skills.
- Authoring tools are used to merge multimedia elements into a project.



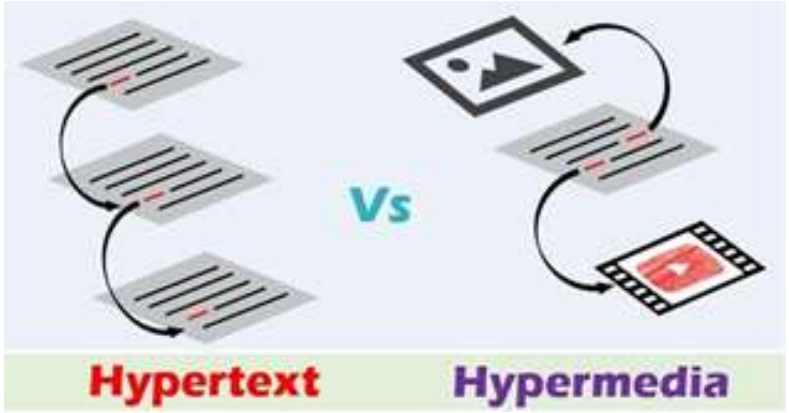
interactivity

.: Multimedia Terminologies

- Multimedia project – developed by multimedia developers. It can be linear or nonlinear.
- Multimedia title – a multimedia project shipped to end users with or without instructions.
- Linear – projects that are not interactive (e.g. montage, video, tv).
- Nonlinear – projects where users are given navigational control / user-interactive (e.g. online quizzes, games or kiosks)

.: Multimedia Terminologies (cont.)

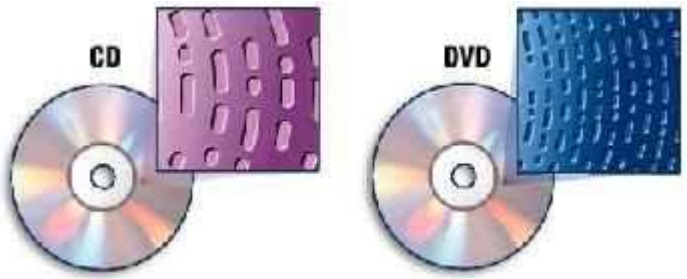
- Hypertext – refers to the system of managing the information related to the plain text.
- Hypermedia – refers to connecting hypertext with other media such as graphics, sounds, video, animations.



.: Multimedia Delivery Media

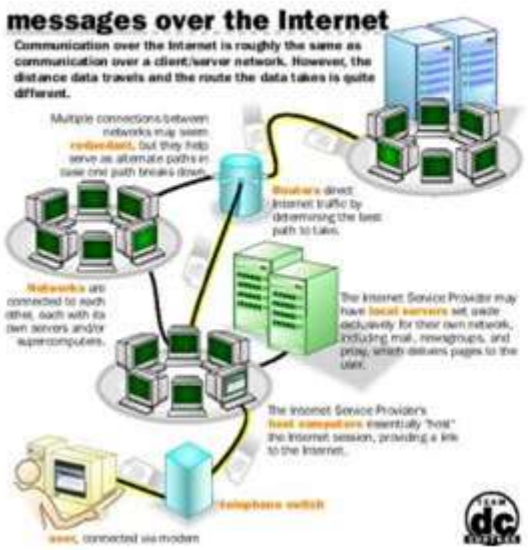
- can be delivered via the Internet/web, or by more traditional methods such as CDs and DVDs.

- Internet
  - easy to update
  - Wide range of distribution
- CD / DVD
  - “set in stone”
  - Quite cheaper



.: Usage of Multimedia

- Business - Business applications for multimedia include presentations training, marketing, advertising, product demos, databases, catalogs, instant messaging, and networked communication.



.: Usage of Multimedia (cont.)

- Education – application/software/courseware can be developed to enrich the learning process.

(source: https://www.slideshare.net/JofredMartinez/multimedia-use-in-education

.: Usage of Multimedia (cont.)

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

(source: https://www.rappler.com/bulletin-board/47554-pldt-leads-homes-multimedia-future/)

.: Usage of Multimedia (cont.)

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

(source: https://oemkiosks.com/blog/self-service-kiosks-can-improve-customer-experience-supermarket/

.: Multimedia extension - Augmented Reality

Definition:

- A fully immersive digital experience that replaces the real world with a computer-generated environment.

Key Features:

- Uses head-mounted displays (HMDs) like Oculus Rift, HTC Vive, or PlayStation VR.
- Provides 360-degree interaction through motion tracking.
- Often requires controllers or hand tracking for interaction.

Applications:

- Gaming and entertainment
- Training simulations (e.g., aviation, medicine)
- Virtual tourism and education

.: Multimedia extension - Augmented Reality

Definition:

- Enhances the real-world environment by overlaying digital elements using devices like smartphones, AR glasses, or tablets.

Key Features:

- Real-world interaction with added virtual objects.
- No need for full immersion or headsets.
- Uses cameras, sensors, and AR software.

Applications:

- Retail (e.g., virtual try-ons for clothes and furniture)
- Navigation (e.g., Google Maps AR)
- Education and training (myWebAR, Aurasma, Vuforia)

.: Multimedia extension - Mix Reality

Definition:

- A blend of VR and AR, where digital and real-world objects interact in real time.

Key Features:

- Allows users to manipulate both virtual and real-world elements.
- Requires advanced headsets like Microsoft HoloLens or Magic Leap.
- Uses spatial computing for interactive experiences.

Applications:

- Industrial design and prototyping
- Remote collaboration and telepresence
- Medical surgeries and diagnostics


Thank
you!


Q&A