



Multimedia

Lecture: Types of Multimedia

Components of multimedia

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BY

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Types of Multimedia

- 1) Linear multimedia
- 2) Non-Linear multimedia:
 - a. Interactive multimedia
 - b. Hyperactive multimedia(Hypermedia)

Types of Multimedia

- **Multimedia is *linear***, when it is not interactive and the users just sit and watch as if it is a movie.
- **Multimedia is *nonlinear***, when the users are given the navigational control and can browse the contents at will.
- **Multimedia is *interactive*** when the end-user is allowed to control what and when the elements are delivered.
- **Interactive Multimedia is *Hypermedia***, when the end-user is provided with the structure of linked elements through which he/she can navigate.

Linear VS Non-Linear

LINEAR

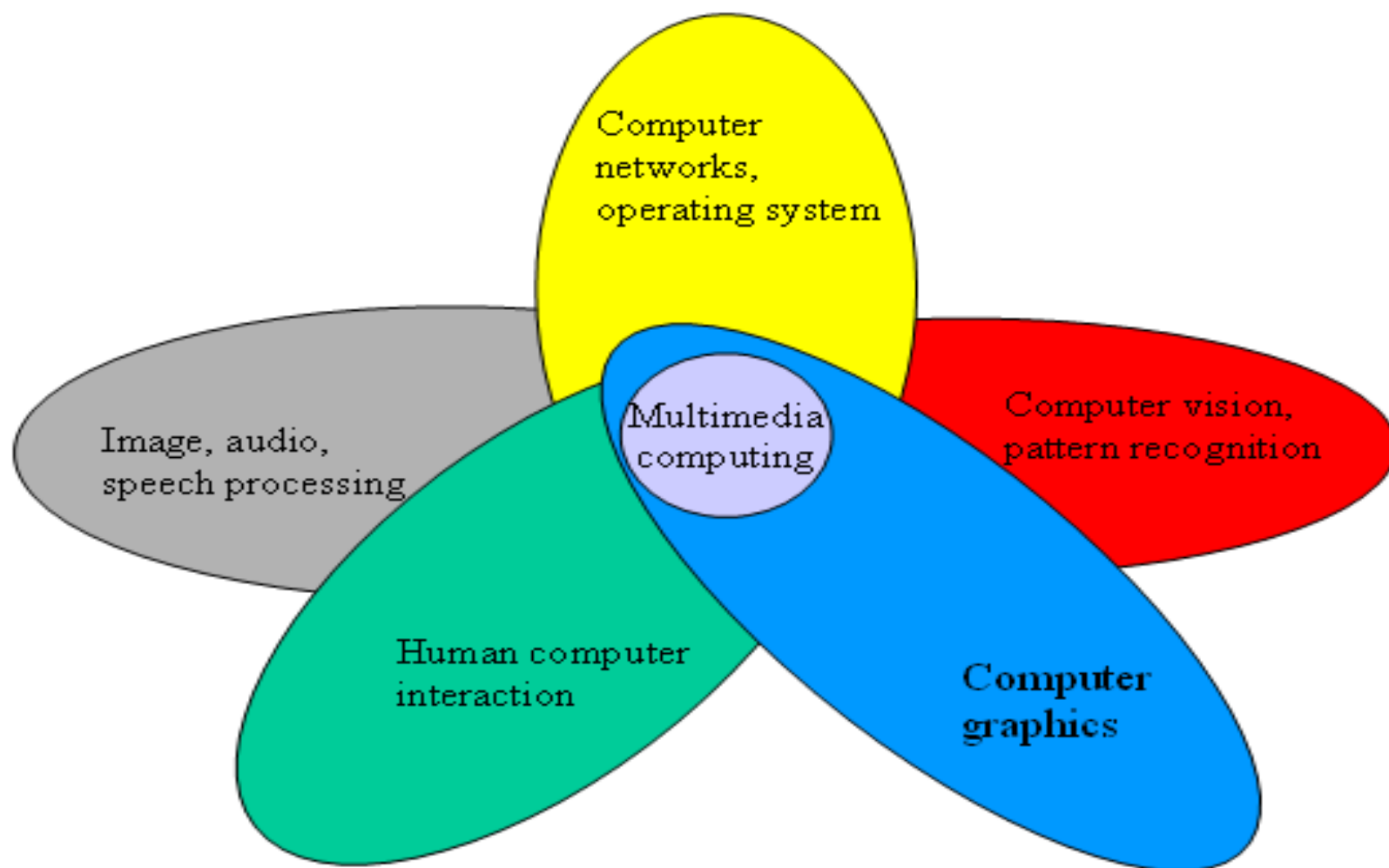
- A Multimedia Project is identified as Linear when:
 - It is not interactive
 - User have no control over the content that is being showed to them.
 - Example:
 - A movie
 - A non-interactive lecture / demo show
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Linear VS Non-Linear

NON-LINEAR

- A Multimedia Project is identified as Non-Linear when:
 - It is interactive
 - Users have control over the content that is being showed to them.
 - Users are given navigational control
 - Example:
 - Games
 - Courseware
 - Interactive CD
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Multimedia is Multidisciplinary



Benefits of using multimedia in software

- **Ease of use**
 - User friendly, increase user's effectiveness
- **Intuitive Interface**
 - Allows user to determine functions of an application by their own intuition
- **Immersive Experience**
 - Software application takes over the entire computer screen, allows user to focus on application



Benefits of using multimedia in software

- **Self-paced interaction & better retention**
 - allows information processing at one's own pace
- **Better understanding**
 - simultaneous presentation of different media provides richer & broader range of information.
- **Cost effectiveness**
 - less training, less technical support

Problems with Multimedia

- **Investment costs**
 - multimedia involves high volume of content
 - expensive copyright and royalty
- **Technical barriers (accessibility issues)**
 - upgrade IT & PC infrastructure
- **Sociopsychological barriers**
 - *Generation gap*
 - *Learning rates*
 - *Learning in group/individual*
 - *Importance of teacher*
- **Legal problems**
 - Copyright

Components of Multimedia

- **Multimedia involves multiple modalities of text, audio, images, drawings, animation, and video.**
- **Examples of how these modalities are put to use:**
 1. **Video conferencing.**
 2. **Distributed lectures for higher education.**
 3. **Tele-medicine.**
 4. **Co-operative work environments.**
 5. **Searching in (very) large video and image databases for target visual objects.**
 6. **“Augmented” reality: placing real-appearing computer graphics and video objects into scenes.**

- 7. Including audio cues for where video-conference participants are located.**
- 8. Building searchable features into new video, and enabling very high- to very low-bit-rate use of new, scalable multi-media products.**
- 9. Making multimedia components *editable*.**
- 10. Building “inverse-Hollywood” applications that can re-create the process by which a video was made.**
- 11. Using voice-recognition to build an interactive environment, say a kitchen-wall web browser.**