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## Multimedia / Hypermedia

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## Computers and multimedia

- **The increasing processing power and storage capacity of computers has allowed applications with not only text and numbers, but also with**
  - » images
  - » sound
  - » animations and video with sound
- **All together are named "multimedia".**

## !! Task - Assignment !!

### Read

Brain, Marshall

**How analog and digital recording works. [online]**

Available from:

<http://electronics.howstuffworks.com/analog-digital.htm>

[cited 2006]



## !! Task - Assignment !!

### Read

Brain, Marshall

**How MP3 files work. [online]**

Available from:

<http://www.howstuffworks.com/mp3.htm>

[cited 2005]



## !! Task - Assignment !!

**Read about  
Streaming media**

[online]

Available from:

[http://en.wikipedia.org/wiki/Streaming\\_media](http://en.wikipedia.org/wiki/Streaming_media)

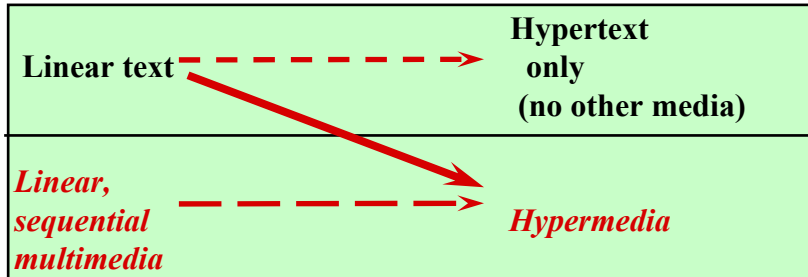
[cited 2005]



## Computers and hypermedia

- Since the end of the 1980s the capacities of computers have been applied more and more to establish links between information items, to allow users to access information by following pre-established links.
- This method of accessing information is not as well possible when more classical media are used (like printed books for instance).
- Instead of the very general word documents, the words "hypertext" and "hypermedia" are used to indicate information organised in this way.

## Trends to Multi-, Hyper-, ... media



## Hypertext and hypermedia: description

- A hypertext is a text containing “anchors”.
- Each anchor is linked to other texts.
- Selecting an anchor brings the reader to the linked text.
- Together, the texts can form a “web”.
  
- Extension from text to other media brings us to “hypermedia”.

## Hypermedia: example of a document

Graphics and sound about “panpipe flutes” copied from an encyclopedia on CD-ROM and embedded here

Sound



## ?? Question ??

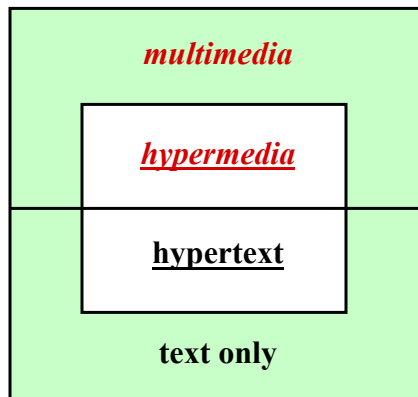
Can you give some *examples* of  
hypertext and hypermedia?



## Hypertext and hypermedia: examples of applications

- help in *Microsoft Windows*
- help in programs for *Microsoft Windows*
- multimedia/hypermedia on CD-ROM
- **documents in the World Wide Web (in the Internet) !**
- ...

## Hypertext and hypermedia: scheme



## Multimedia: methods / carriers

*CD*  
*DVD*  
*RAM*  
*Internet computers*

## Multimedia: categories of applications

- **Training**
  - **Education**
  - **Encyclopedias on CD-ROM**
  - **Entertainment / Infotainment**
  - **Kiosk-based applications**
  - **Business presentations to an audience**
  - **Medical information to patients**
  - **World Wide Web**
- + mixtures of the above



## ?? Question ??

Which technical problems and bottlenecks hinder the application of digital video?



## Multimedia: digital video: problems and bottlenecks

- Large storage capacity required
- Data transfer rate from network server or cd or dvd disk to the CPU in the computer
- Processing power of the CPU to decompress the compressed digital video data in real time
- Lack of real standard  
= multiple “standards” exist:  
AVI; MP(E)G; Quicktime, QT, MOV; RM and RAM;...

## **Multimedia: problems and drawbacks**

- **High costs of “contents” product development**
- **Requires powerful hardware which is not yet universally available**
- **High costs of the required hardware**
- **Requires high storage capacity**
- **...**

## **Multimedia: information sources about multimedia**

- **news: alt.binaries.multimedia**
- **news: alt.binaries.multimedia.d**

## **Multimedia PC = MPC: the standard**

- **The MPC standard is set by the Multimedia PC Marketing Council.**
- **MPC software is designed to run on MPC-compatible machines.**
- **The first version of the standard, MPC 1, has been superseded by MPC 2, 3...**



## **Multimedia: future trends**

- **Increasing quality / price ratio for the required hardware**
- **More applications**
- **Increasing integration in more computer applications**

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