

Lecture 7 Multimedia Applications

- “Multimedia is appropriate whenever a human interface connects a human user to electronic information of any kind. Multimedia enhances traditional text-only computer interfaces and yields measurable benefit by gaining and holding attention and interest; multimedia improves information retention. When properly designed, multimedia can also be profoundly entertaining.”
Tay Vaughan, President of Timestream, inc.

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Areas of Multimedia Applications

- There are FOUR major multimedia application areas
 - *Education*
 - *Business*
 - *Home*
 - *Public Places*

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Educational Multimedia Applications

- Have been used in UK schools for quite some time
- Used laserdisc technology
- Ranged from computerised books and encyclopedias, to teaching aides for learning different subjects, e.g. mathematics

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Educational Multimedia Applications

- Due to the extremely rapid growth of computer technology, schools and colleges started to purchase computers equipped with CD-Rom drives to access a wider range of educational titles

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Educational Multimedia Applications

- In the late 1990s, the World Wide Web (WWW) became a serious platform for delivering education
- The majority of large and medium size companies had set up websites
- And more and more schools were encouraged to enter this new world of information

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Educational Multimedia Applications

- With connection to the WWW, schools have access to an unbelievable amount of educational multimedia
- Educational multimedia promotes learning by exploration and discovery
- Adults benefit from this type of learning as children do

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Educational Multimedia Applications

- The Yale university school of medicine provides doctors with a multimedia application for in-depth learning of new clinical techniques through presentations of over 100 case studies
- Multimedia applications in education will not replace teachers, but will enable students to go beyond the limits of traditional teaching methods.

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Business Multimedia Applications

- Multimedia application areas within business include the following :
 - Presentations
 - Training
 - Marketing
 - Advertising
 - Product Demos
 - Databases
 - Catalogues
 - Network communication
 - Video conferencing

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Business Multimedia Applications

- A multimedia presentation at a business conference can make an informative and exiting change
- They can contain video and audio, as well as the usual text and graphics
- The way the content material is presented and structured is as important as the actual content itself

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Business Multimedia Applications

- Education within business is usually called training and this is another area where business benefits from multimedia
- Multimedia simulations are used for airoplanes to manage terrorism, mechanics learn to repair engines and salespeople learn about how their products are created on the manufacturing production lines

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Business Multimedia Applications

- Video conferencing is an application which is fast becoming commonplace within high level business management
- Monitors can now be purchased which have inbuilt microphones and video cameras
- Multimedia has a strong presence within the business domain, and this will only get stronger with time

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Multimedia Applications in the Home

- Multimedia applications within the home include the following :
 - Home and garden design
 - Reference
 - Genealogy
 - On-line shopping
 - Television guides

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Multimedia Applications in the Home

- All the above application types are available via three main methods of delivery :
 - Home computer (via CD-Rom or WWW)
 - Dedicated players (Games machines, DVD players)
 - Interactive Television

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Multimedia Applications in the Home

- The large number of homes within the UK have at least one of the above methods for using applications
- There is currently a UK Internet price war, where ISPs are starting to give free access to the Internet, this will enable more home access to the Internet and therefore more multimedia applications

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Multimedia Applications in the Home

- Some computing companies including Sun Microsystems and Compaq, have been developing Internet only PCs
- These will enable plug and pay connection to the Internet at an affordable price
- All these factors will eventually make the Home multimedia application area the largest area for multimedia

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Public Place Multimedia Applications

- Multimedia kiosks or stand alone platforms have started to appear in some of our public places, such as supermarkets and museums
- Current examples include, tourist information terminals at some train stations, terminals in stores for converting collection points into vouchers

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Categories of Multimedia Applications

- All the applications named in the above application domains can be categorised under specific headings, with each category having a set of criteria that defines it. The categories include :
 - *Briefing*
 - *Reference*
 - *Database*
 - *Education and Training*
 - *Kiosk*
 - *Entertainment and Games*

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Briefing Applications

- Briefing applications are usually small, straightforward, linear products used to present information quickly and concisely. the characteristics of briefing applications are :
 - Relatively short development cycles typically ranging from a few hours to a couple of days
 - A limited number of presentations before they are disposed of or changed for future use

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Briefing Applications

- A predominant use of text to present information with limited use of graphics. This is due to lack of time to develop extensive content.
- ◆ Briefing products include corporate presentations, sales presentations, educational lectures outline.
- ◆ It is extremely important that the content is relevant to the targeted audience

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Reference Applications

- These include a wide range of products including encyclopedias, dictionaries, cook books.
- These are usually accessed via CD-Rom or DVDs
- They are developed and used by a wide range of people, from young children through to technical adults

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Generalised Reference Applications

- Products such as encyclopedias and dictionaries
- They cover a wide range of topics with limited information

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Detailed Reference Applications

- Dedicated to one subject
- Contain very detailed information
- For a practical example, look up '*the planet Jupiter*' in an encyclopedia, then look up the same phrase in the multimedia product "Tour the Galaxy", and note the difference in the information provided

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Reference Multimedia Applications

- Most reference application contain the following features :
 - A layered selection function allowing logically organised information, to make finding a topic easier
 - Bookmarks, these enable the user to access previously visited pages easily
 - Internet type navigation tools such as, back, main menu (home), Search etc.
 - Print and export function for copying and storing information

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Multimedia Database Applications

- These are similar to reference applications in that they provide access to large amounts of information to the users. But they are different in that they concentrate on the actual storage and retrieving of data
- Some examples of Multimedia database applications follow :

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Multimedia Database Applications

- Collections of fonts, pictures, sound and video clips
 - Large libraries of similar material such as Shakespeare's plays
 - Map, chart and imagery collections
 - Scientific survey information
 - Phone number and post code listings
- ◆ These are also delivered via CD-Rom and DVD

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Education and Training Applications

- ◆ These applications make up a significant part of the multimedia application market. Ranging from pre-school children through to postgraduate technical and corporate training packages
- ◆ There are three types of education and training applications, these are described as follows:

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Education and Training Applications

- ◆ *Instructor Support products*
- Used by teachers and lecturers along with other teaching aids. Include resource information from curriculum guides, study notes, lecture slides, handouts and testing and assessment materials
- ◆ *Stand-Alone or Self-paced products*
- These are called Computer Based Training packages. They are designed for the students to use without the need for lecturers. They are used extensively in industry where employees learn new skills without lecturers

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Education and Training Applications

- ◆ *Combination Products*
- These are a cross between the two products described before. They are used by a student under direction of a teacher or lecturer
 - Used in conjunction with lectures and tutorials
 - They provide support material to reinforce what has been discussed in lectures and lessons
 - Again they are usually delivered via CD-Roms and DVDs

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Kiosk Applications

- ◆ Kiosk applications tend to be easy to use as the developers don't know who is going to use the system
- ◆ Kiosks usually have to run on simple machines so should involve little or no maintenance
- ◆ Kiosk applications usually incorporate text, graphics, video and sound to inform the public
- ◆ Kiosk interfaces usually follow a simple menu hierarchy

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Entertainment and Game Applications

- ◆ This type of application is usually accessed via CD-Rom, the WWW or dedicated game machines
- ◆ This is the application domain that pushes the advancement of new technology
- ◆ It is important to know who the users are, e.g. are they young children or are they 18 year old teenagers

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