## PRELUDE

- ✓ Hypermedia is used as a logical extension of the term hypertext in which graphics, audio, video, plain text and hyperlinks intertwine to create a generally non-linear medium of information.
- ✓ It is a network containing several interlinked information units called nodes and the connection between the nodes are called links.
- ✓ It contrasts with the broader term multimedia, which may be used to describe non-interactive linear presentations as well as hypermedia.
- ✓ The World Wide Web is a classic example of hypermedia, whereas a non-interactive cinema presentation is an example of standard multimedia due to the absence of hyperlinks.
- ✓ Most modern hypermedia is delivered via electronic pages from a variety of systems including Media players, web browsers, and stand-alone applications. Audio hypermedia is emerging with voice command devices and voice browsing.
- ✓ Multimedia development software such as Adobe Flash, Adobe Director, Macromedia Authorware, and MatchWare Mediator may be used to create stand-alone hypermedia applications, with emphasis on entertainment content.
- ✓ Some database software such as Visual FoxPro and FileMaker Developer may be used to develop stand-alone hypermedia applications, with emphasis on educational and business content management.
- ✓ Hypermedia applications may also be developed on embedded devices for the mobile using the specification from W3C (World Wide Web Consortium).

CHARACTERISTICS

- ✓ It must be possible to use hypermedia both for writing and reading information.
- ✓ The information comprises non sequential structures and may thus be followed along alternative paths.
- ✓ The information must follow natural association from one information unit to another.
- ✓ The information may be hierarchically structured.
- ✓ Each information unit is presented in a separate on screen window.
- ✓ It must possible to share the information or parts of it among several users.
- ✓ It must be possible to have several people working against the database at the same time.
- ✓ The information resides in a database.

COMPONENTS OF HYPERMEDIA

- ✓ the different components of a hypermedia consists of nodes, links, hyperdocuments, database diagrams, a search engine and a programming interface.
- ✓ The information itself in hypermedia consists of a number of hyperdocuments shown in dotted areas in the figure. The hyperdocuments again are built by a collection of nodes and links. Each hyperdocument comprises an independent, limited topic and each node is an independent information unit. Links handle a natural switch from one node to another thus structuring the hyperdocument.
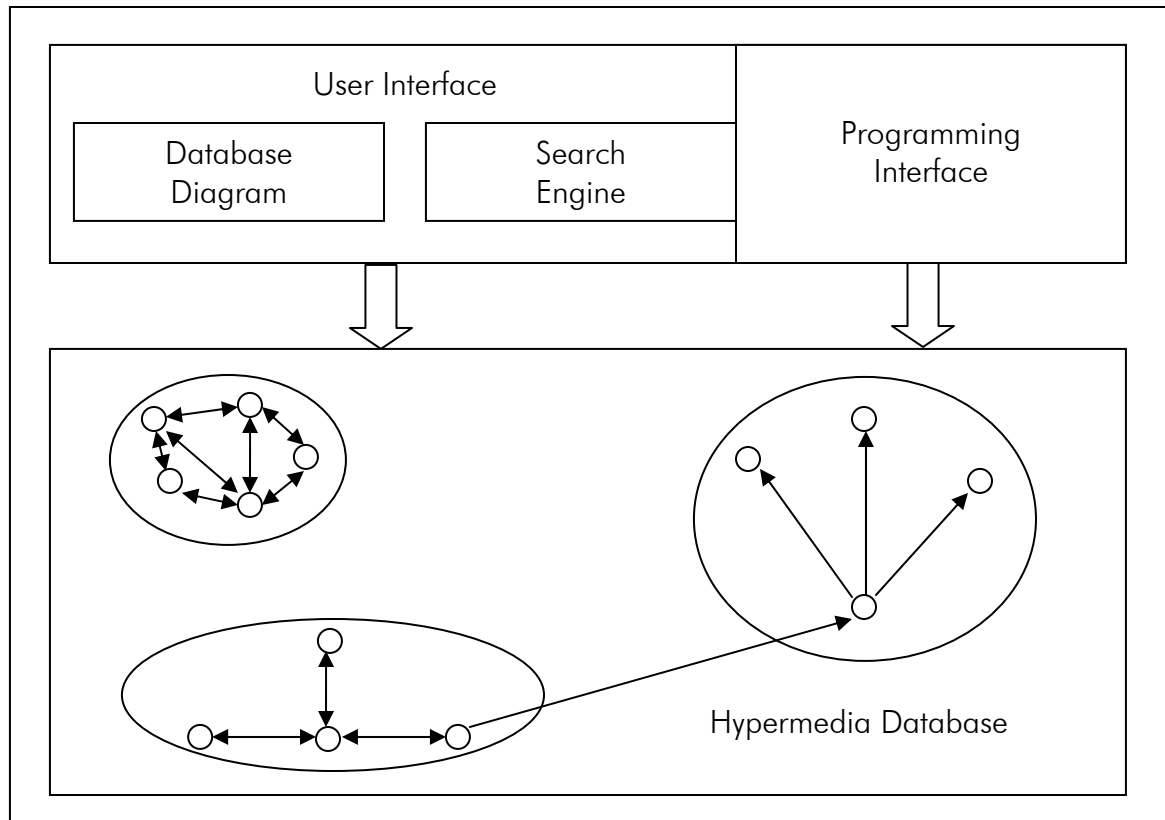
✓ The user's access to information occurs through the user interface which directly goes to the hypermedia base. The user then follows the links from node to node based on the information contained in each node.

✓ A database diagram is a graphic overview of the hyperdocument. It allows the user to navigate directly between nodes in the hyperdocument, without following the links.

✓ A search engine is a mechanism that allows a user to search directly for information in the hypermedia database. Search engines may find nodes of a certain type or names or nodes containing specific information. Advanced hypermedia systems may have search engines which allow the formulation of direct query in the hyperbase.

✓ The programming interface enables the creation of special applications for the existing hypermedia systems. It may also be used to add new features to the system. It may, for example, be used to connect the hypermedia database to more advanced search routines or to link to other applications allowing these to access the information in the hypermedia database.

APPLICATION AREAS OF HYPERMEDIA

- ✓ **Literature Systems:** Different types of literature require organizing the material, as well as references to other liteture. Literature systems lend themselves well to the rich ways of structuring information afforded by hypermedia. Documents are kept together by mean of organization links. This structure may be created by the author,or it may be the original structure of a document which has been converted from printed text to hypermedia. References to other parts of the document and to other documents are handled by reference links. This allows direct references to other documents, if the other document are in the hyperbase.

- ✓ **Publishing:** Compared to traditional printed information media, hypermedia has the advantage of being able to present other information that text and pictures. Information objects such as audio and film may be included in a document. As this publishing is electronic, it will be easier to distribute than traditional printed matter.

- ✓ **Instruction System:** Hypermedia is often employed in interactive instruction systems. The student may move around at will in the information, hopefully learning while jumping from node to node. Instruction systems require the ability to guide the student through the material, creating recommended paths to follow. A simple way to add comments is also required.

- ✓ **Problem Solving Systems:** This types of system is used for inter-group communication. When using hypermedia's opportunites for allowing a number of users to access the same information set, a work group may seek solutions to different issues. Discussions, document sharing, and the ability to let work group members comment on the work of other members are typical features of such systems.

- ✓ **Idea Tools:** A number of experts have argued that the linear structure of traditional documents is inadequate for representing thoughts and ideas. As hypermedia offers a non-linear structure, it may well be an appropriate tool for structuring thoughts and ideas.