Multimedia Approach to Information Processing

Meaning

The word multimedia is made up of the two Latin words "multi" which means many and "media" which is the substance through which something is transmitted. In this case multi is the multiple data types such as voice, video, image, animation, text etc. and media is the computer environment used to transmit the information made up of this multiple data types. Multimedia data imposes new requirements to the computer networks due to the large volumes involved. In addition to huge Volumes the way we look at multimedia information is also different.

A multimedia information system aims at integrating the various tools needed for the acquisition, management, processing and dissemination of multimedia information related to environment

Provides to the systems designers a `generic information system' in form of a toolbox to be used to implement their own information system

The variety of media types is an important feature of modern information systems. In order to deal with the variety, integration is a critical concern. Therefore,

Multimedia Information System (MIS) is then one which allows end-users to share, communicate and process a variety of forms of information in an integrated manner

MIS is attempting to solve the problems of information management by integrating the various forms of media into the computer/communications infrastructure.

Nature of Multimedia Approach

❖ Multimedia approach uses a number of media, devices, techniques in the teaching learning process.

❖ Multimedia approach can convey vast information and provide many sources from which student can access the information.

❖ Multimedia approach will improve the teaching learning process.

❖ Multimedia approach is not restricted to a single type of learning style. It can provide the support of a wide range of activities.

❖ Multimedia approach aims at providing meaningful learning experience via a mix of media in order to achieve predetermined objectives.

❖ Multimedia approach provides the opportunity to gain mastery of competencies and skills.

❖ The choice of the media has to be done carefully so that one does not hamper or reduce the effect of the other. That is each media must complement the other.

❖ Multimedia approach will enable the learner to get access to information in dynamic environment.

Procedure for Adopting Multimedia Approach

The following are the six steps to be followed while adopting the Multimedia Approach

Stage 1

- In this stage the teacher initiates the teaching – learning activities.

- Teacher deliver a well prepared lesson based on the objectives formulated.

- Teacher could use a variety of media for his presentation.

Stage2

- Teacher demonstrates a specific and specialized unit using a mix of media.

- The teacher may provide learner with programmed learning materials, cassettes, CD's etc.

Stage 3

- This is a preparatory stage for the learner before he stars independent learning.

- The student discusses with peer students and teachers his plan of action.

Stage 4

- In this stage the learner actively participates.

- He uses variety of media and materials in his self-study.

Stage 5

- In this stage the learner integrates theory and practice.

Stage 6

- In this stage learner finds that teaching – learning activities have to be organized on a higher level.

- The student involved in critical analysis, critical evaluation and exchange of ideas.

Advantages of the Multimedia Approach

- ❖ Multimedia approach enables the student to represent information using several different media.

- ❖ Can arouse the curiosity among the learner and provide them vivid impressions.

- ❖ Multimedia can take into account different learning styles – some pupil learn by interpreting text, while others require more graphical representations.

- ❖ Can develop a positive attitude among the learners towards the teaching-learning process.

- ❖ Multimedia Approach allows for self-pacing

- ❖ Technique of simulation can be effectively applied through the multimedia approach.

- ❖ Helps in development of higher order thinking skills.

- ❖ Multimedia approach provides the student the flexibility of 'any where', 'any time' learning.

- ❖ Helps in developing group and interpersonal skills.

* Effective remediation programmes can be implemented through the multimedia approach.

* Multimedia approach can bridge language barriers since audio is not the only means of communication.

Disadvantages of the Multimedia Approach

* Requires highly sophisticated infrastructure facilities, which may lead to heavy financial burden.

* Expertise and skill are required to operate the multimedia devices, which will lead to the problem of non-availability of human resources.

* Not feasible in the all topics of study.