LESSON 1
MULTIMEDIA CONCEPTS

The word multimedia is commonly used in our life. For example, we send messages through our mobile phones using Multimedia Messaging System (MMS). In schools, we use the multimedia courseware to learn.

DEFINITION OF MULTIMEDIA

Multimedia has been used in many aspects in our lives, for example in the field of business, entertainment and the sciences. “Multimedia” comes from the word “multi” and “media”. “Multi” means various. “Media” refers to any hardware or software used for communicating.

These are some examples of hardware and software that we use in communicating with others.

Examples of hardware are: the radio, television, computer and mobile phone.

Examples of software are: email, Yahoo Messenger, Multimedia Message Service (MMS) and video conferencing.
The usage of text, audio, graphic, video and animation are all involved in describing media. So, multimedia is the presentation of information by using a combination of text, audio, graphic, video and animation.

CURRENT DEFINITION OF MULTIMEDIA IN ICT

In the field of Information and Communication Technology, multimedia means more than the use of the various media. A computer user interacts with the computer to perform tasks such as finding information or play games to develop a skill.

Thus, the meaning of multimedia has changed as technology advanced in our lives.
4.0 MULTIMEDIA

There are five main elements in a complete multimedia system.

MULTIMEDIA APPLICATIONS IN SOCIETY

Multimedia has improved our lives in many ways.

Firstly, multimedia is used as a common source of reference.

Encyclopedias, directories, dictionaries and electronic books are among common multimedia references.
4.0 MULTIMEDIA
Multimedia is also used in education and training. Learning has become more interesting and effective with educational programmes such as “edutainment” that is a combination of education and entertainment.

Besides that, multimedia is greatly used in entertainment industry.

These industries produce computer games, and develop animations or special effects for cartoons and movies.

Multimedia applications are also widely used in scientific research.

For example, from research, new findings can help the researchers to improve the condition of sick people.

MORE MULTIMEDIA APPLICATIONS IN VARIOUS FIELDS
Multimedia has played an important role in other fields, such as business, arts, medicine and engineering.
4.0 MULTIMEDIA

In business, multimedia applications are used in advertising products.

Many companies nowadays develop and distribute catalogues in the form of a CD-ROM as it is more interesting to the consumers.

In art, artists use multimedia elements by combining drawing and animation.

In medicine, doctors can practice or be trained in performing high-risk surgery by using virtual surgery.

In engineering, Computer-Aided Design or CAD is used. By using this application, engineers can view the design from many aspects and improve on it before production.
EXTENSION: MULTIMEDIA FOR THOSE WITH LOW VISION

Multimedia applications have greatly benefited those with low vision as it helps them in performing tasks normally in their daily lives.

Users who have vision problems, can use the multimedia for their educational and rehabilitation program to improve their lives.
INTERACTIVITY

If you use the first multimedia application, the content progresses without you having to control the flow of the movie. Your only control is to press the “play” and the “stop” buttons.

This interaction is called **linear interactivity**.

On the other hand, the second multimedia application allows you to decide which part you would like to view, or how much you want to know about the content.

This interaction is named **non-linear interactivity**.

WHAT IS INTERACTIVITY?

Interactivity refers to the way users interact with a multimedia application or program.

How does a user control the content of a multimedia application? The user can use input devices such as a keyboard, joystick, mouse and touch screen to interact with the application through the computer. The content of the application provided, determines the interactivity for the user. An example is film that does not allow the user to control the content.

Another example is a computer game. It allows the user to use the left and right arrow keys to control the movement of the game.
WHAT IS LINEAR INTERACTIVITY?

In linear interactivity, the user interacts with the multimedia application without controlling the progress of the content.

In other words, the user is a passive receiver of the multimedia content most of the time.

The linear content is usually arranged in sequence. An example of the multimedia linear content is a movie.

Although a movie uses a combination of audio, graphics and animations, the user has no control over the sequence of events.

WHAT IS NON-LINEAR INTERACTIVITY?

Unlike linear interactivity, non-linear interactivity allows the user to interact with the content according to what the user wants from the content. In other words, it is a two-way communication.

The user can control the progress and sequence of the multimedia content by using buttons or links.

Non-linear interactivity uses tools like “hypertext” to connect a word or a phrase to another screen.
**4.0 MULTIMEDIA**

An electronic book with links to another screen is considered as having non-linear multimedia content.

Hypermedia is also used in non-linear interactivity. This tool is similar to hypertext. However, it connects to different media elements such as audio and video.

**EXTENSION : NON-LINEAR INTERACTIVITY AND VIRTUAL REALITY**

Virtual Reality is the best example of multimedia technology which uses non-linear interactivity.

Advanced virtual reality systems today allow users to respond and interact in many ways to its virtual surroundings.

In learning Geography, virtual reality can recreate places and environment for you to interact with. Viewing exploration programs, like Discovery and Animal Planet will be even more interesting.

This is because you will be able to enter different environments virtually and interact with your surroundings. You can learn at your own pace and level of understanding.
COMMON MEDIUMS

Generally, there are two very common mediums used in delivering multimedia contents.

First, multimedia can be delivered through Web pages. Thus, this kind of content is said to be a Web-based multimedia.

Secondly, multimedia can be delivered through compact discs. Therefore, the multimedia content is said to be a CD-based multimedia.

WEB-BASED MULTIMEDIA

Web-based multimedia is a combination of multimedia technology and Internet technology. Web-based multimedia is popular nowadays.

In the past, Web pages were filled only with static texts and graphics as there were problems in downloading large multimedia files through the Internet.

Downloading a video file could take a long time as it is large.
MULTIMEDIA TECHNOLOGY IN THE INTERNET

Now, with the advancement of both technologies, most Web pages integrate elements like text, graphic, audio, video and animation.

These dynamic elements make the process of distributing information through the Internet more interesting and effective to the user.

There are a lot of multimedia software including plug-ins, players and browsers used in the Internet. These software allow better quality multimedia programs to be stored and viewed.

<table>
<thead>
<tr>
<th>Software</th>
<th>Plug-in or Player</th>
<th>Browser</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Flash</td>
<td>• Java</td>
<td>• Internet Explorer</td>
</tr>
<tr>
<td>• Director</td>
<td>• Flash Player</td>
<td>• Firefox</td>
</tr>
<tr>
<td>• FrontPage</td>
<td>• Media Player</td>
<td></td>
</tr>
</tbody>
</table>

Apart from using the software, the quality of a multimedia program received will still depend on the Internet facilities that the user has.
CD-BASED MULTIMEDIA

CDs like CD-ROM (Compact Disc Read Only Memory) have been used to store and deliver multimedia content.

CDs are usually used with computers. An improvement of the CD-ROM is the Blu-ray disc which can store better quality video.

However, the main problem in using CD-ROMs as a medium is that, it can be costly as it takes a long time to produce a complete multimedia program.

DIFFERENCES BETWEEN WEB-BASED AND CD-BASED MULTIMEDIA APPLICATIONS

There are some differences between Web-based and CD-based multimedia applications.

<table>
<thead>
<tr>
<th>Web-based</th>
<th>CD-based</th>
</tr>
</thead>
<tbody>
<tr>
<td>• limited in picture size and low resolution video</td>
<td>• can store high end multimedia elements such as video</td>
</tr>
<tr>
<td>• can be changed, damaged or deleted by irresponsible individuals</td>
<td>• can be permanently stored and are not changeable</td>
</tr>
<tr>
<td>• information for multimedia can be updated easily and is cheaper</td>
<td>• information on a multimedia can be quickly outdated</td>
</tr>
</tbody>
</table>
Interactive television is the use of digital television to deliver high definition multimedia content to the user.

When a user wants to watch interactive television content, the user would download it from the Internet.

An example of interactive television is Apple TV. In order to subscribe to Apple TV services, a client needs to have a widescreen TV, a Mac or a PC, an Internet connection, a High-Definition Multimedia Interface (HDMI) cable and the software, iTunes 7.

Interactive TV or iTV does not only allow users to change channels but also to interact with the content of a tv program.
THE FIVE MAIN ELEMENTS OF MULTIMEDIA

In a multimedia application, basically the elements are divided into two: dynamic (objects that move or change) and static (objects that do not move).

Texts and graphics are two elements that do not move whereas the other three elements: audio, video and animations are moving objects within a multimedia application.

Text

Text is the basic element of multimedia. It involves the use of text types, sizes, colours and background colour.

In a multimedia application, other media or screen can be linked through the use of text. This is what you call Hypertext.

To produce an effective multimedia program there are three things that need to be considered. They are:

- The position of the text on the screen.
- Length of the message
- And legibility of the text.
4.0 MULTIMEDIA

GRAPHIC

Graphics make the multimedia application attractive. They help to illustrate ideas through still pictures.

There are two types of graphics used: bitmaps (paint graphics) and vector (draw graphics).

Bitmaps images are real images that can be captured from devices such as cameras or scanners.

Vector graphics are drawn on the computer and only require a small amount of memory.

AUDIO

A multimedia application may require the use of speech, music and sound effects. These are called audio or the sound element.

There are two basic types of audio or sound: analog and digital audio.

Analog audio refers to the original sound signal. Digital audio refers to the digital sampling of the actual sound. The sound used in multimedia is digital audio.

We can record analog audio file. We can use special audio editors like Sound Forge to convert analog audio files into digital audio files.
4.0 MULTIMEDIA

VIDEO

Video provides a powerful impact in a multimedia program. In multimedia applications, the digital video is gaining popularity because of the following reasons:

- Video clips can be edited easily
- The digital video files can be stored like any other files in the computer and the quality of the video can still be maintained
- The video files can be transferred within a computer network
- It allows non-linear editing in any part of the video

However, these digital video files are large in size. Transferring these files can take a long time especially when using the Internet.

ANIMATION

Animation is a process of making a static image look like it is moving. In multimedia, digital animation is used. Digital animation can be categorised into two broad areas: 2D (2 Dimension) and 3D (3 Dimension) animations.

2D animation refers to creating movements in basic objects. These objects are put into various situations or positions and have movement on the screen.

3D animation refers to creating movements to three-dimensional digital objects from photographs. Movements like spinning and flying across the screen are some samples of animations.
4.0 MULTIMEDIA

STANDARD FILE FORMATS

Each of the five elements mentioned has various standard file formats. File format is a particular way to store information in a computer.

The formats will allow you to make decisions of the type of text, graphic, audio, video and animation to use when developing your own multimedia program.

<table>
<thead>
<tr>
<th>Text files</th>
<th>Graphical icon</th>
<th>Full name</th>
</tr>
</thead>
<tbody>
<tr>
<td>*.doc</td>
<td></td>
<td>Microsoft Word Document</td>
</tr>
<tr>
<td>*.txt</td>
<td></td>
<td>ASCII</td>
</tr>
<tr>
<td>*.rtf</td>
<td></td>
<td>Rich Text Format</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Audio files</th>
<th>Graphical icon</th>
<th>Full name</th>
</tr>
</thead>
<tbody>
<tr>
<td>*.wav</td>
<td></td>
<td>Waveform</td>
</tr>
<tr>
<td>*.mid</td>
<td></td>
<td>Musical Instrument Digital Interface</td>
</tr>
<tr>
<td><em>.aif/</em>.aiff</td>
<td></td>
<td>Audio Interchange File Format</td>
</tr>
<tr>
<td>*.au</td>
<td></td>
<td>Audio</td>
</tr>
<tr>
<td>*.wma</td>
<td></td>
<td>Windows Media Audio</td>
</tr>
</tbody>
</table>
Multimedia has become a part of the telecommunications industry.

Mobile phones can now display texts, graphics, video and play audio. These are the Multimedia Messaging Services (MMS) features incorporated into most mobile phones.
In producing a multimedia program, we need to: Gather data for the 5 basic elements of multimedia: text, animation, graphics, video and audio by using hardware.

To edit the elements, we need special editing software.
HARDWARE FOR PRODUCING MULTIMEDIA

The most common hardware used are scanner, video camera, camera for still photos, audio device, and video capture device. Each of these hardware has its functions and characteristics.

Knowing the functions of the hardware and how to use them are important. This will enable us to integrate the basic elements of multimedia into a program.

DESCRIPTION OF HARDWARE

Each hardware has its own functions.

**Scanners** are used to convert conventional images, texts, drawings and photos into digital form that can be understood by the computer.

There are four types of scanners: flatbed scanner, hand held scanner, sheet-fed scanner and 3D scanner.
There are two types of **video cameras**: analog video camera and digital video camera (DV).

An analog video camera records video in analog signals on a magnetic video tape.

A digital video camera records video in digital signals, which can be stored in various forms of media, such as digital video tape or memory cards.

Data stored in these DV tapes can directly be read by a computer system.

In an ordinary **camera**, images are captured on a roll of film. In a digital camera, images are captured and stored in a media card.

The advantages of having a digital camera is that the images captured can directly be used in the computer.

It saves cost as we do not have to buy films and can choose to keep or delete the pictures in the memory card.
4.0 MULTIMEDIA

**Audio** devices are needed to record analog sound.

The sounds are then changed into digital sound.

Examples of devices used for recording sounds or audio are microphone, sound card and voice synthesizer.

**Video capture devices** help to convert analog video to digital video. The fire wire helps to transfer the video from video camera to the computer.

They also transfer digital video to the computer so that the data can be edited or stored.
4.0 MULTIMEDIA

EDITING SOFTWARE FOR MULTIMEDIA

In producing multimedia, the data in the video camera can be edited, changed, transferred and stored in the computer.

A text editor is used to edit plain text.

Generally a graphic editor can edit images, draw or illustrate pictures or objects.

Animation editors are used for producing 2D, 3D, special effects and animation for the Web.

An audio editor is used for voice recording or producing music and special sound effects.

A video editor is used to edit video.
4.0 MULTIMEDIA

EXAMPLES OF EDITING SOFTWARE

These are examples of editing software that available for producing a multimedia program.

<table>
<thead>
<tr>
<th>ELEMENTS</th>
<th>EDITING SOFTWARE</th>
<th>ELEMENTS</th>
<th>EDITING SOFTWARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text</td>
<td>• Notepad</td>
<td>Video</td>
<td>• Adobe Premiere</td>
</tr>
<tr>
<td></td>
<td>• Microsoft Word</td>
<td></td>
<td>• Pinnacle Studio</td>
</tr>
<tr>
<td></td>
<td>• Open Office Writer</td>
<td></td>
<td>• Ulead MediaStudio Pro</td>
</tr>
<tr>
<td>Graphics</td>
<td>• Microsoft Paint</td>
<td>Animation</td>
<td>• Macromedia Flash (2D)</td>
</tr>
<tr>
<td></td>
<td>• Adobe Photoshop</td>
<td></td>
<td>• Asymmetrix 3DFX (3D)</td>
</tr>
<tr>
<td></td>
<td>• Corel Draw</td>
<td></td>
<td>• Magic Morph (special effect)</td>
</tr>
<tr>
<td>Audio</td>
<td>• Sound Recorder</td>
<td></td>
<td>• Ulead GIF Animator (Web animation)</td>
</tr>
<tr>
<td></td>
<td>• Sony Sound Forge</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Adobe Audition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EXTENSION : ANIME

Have you ever heard of “anime”? Anime is one of the world’s most popular animations.

It originated in Japan. In Japan, anime refers to “animation” and most of them are based on “manga” comics.

Manga is a cultural force in Japan and is gaining popularity in America.

You can add colour to the drawing by putting in a background, adding visual effects and animating the objects to make it more attractive.
4.0 MULTIMEDIA

LESSON 6
AUTHORING TOOL CONCEPT

Authoring tool is a program that helps you write multimedia applications. Authoring tools usually enable you to create a final application by linking together objects such as a paragraph of text, graphic or a video.

By sequencing them in an appropriate order, authoring tools can produce attractive and useful multimedia applications.

MULTIMEDIA AUTHORING TOOLS

Multimedia authoring requires users to develop all the multimedia elements and integrate them into an interactive application.

The tool of the multimedia professional is the authoring software or authoring tool.
4.0 MULTIMEDIA

All multimedia tools are based on a concept where the program organizes elements, sequences events, and delivers the multimedia application.

Multimedia applications can be classified into three concepts, which are:

- time frame,
- icon
- and card.
4.0 MULTIMEDIA

TIME FRAME CONCEPT

With time frame concept authoring tools, the multimedia elements or events are presented and organised along a time line. This type of tool helps users coordinate when each multimedia element (text, graphics, audio, video or animation) plays.

In time frame concept authoring tools, a timeline consists of layers which span several frames.

For example a simple presentation could contain three layers; layer one could contain a picture of a blue sky, layer two could contain a picture of a mountain and layer three a picture of a mountain climber.

If each of the layers span 10 frames and the user presses the "play" button, then the presentation will show a picture containing all of the elements in the layers e.g. blue sky, a mountain and a mountain climber.

If layer one however only spans 5 frames from the beginning, then the blue sky would only show for 5 frames and then disappear for the remaining 5.

Examples of authoring tools using the time frame concept are Flash and Director. These two software can support multi platform.
The icon concept in authoring tools provides the multimedia developer with a visual programming approach to sequencing events in the multimedia application.

In this concept, elements and events are organised in a structural framework.

With icon authoring tools, users can present visually a logical flow of events by dragging icons from an icon menu.

The icon can represent graphics, audio files, animation, text, movies, and other elements should be played in a logical flow or flow chart.

These entire icon concept authoring tools use "drag and drop" to pick up and place icons on the presentation page.

These icons represent:
- events such as mouse clicks, key press
- actions to be performed after an event e.g. a transition, a sound
- routines to perform loops, conditional branches

A presentation is built by inserting one object after another e.g. a simple application could contain just three icons: picture, sound icon and text icon.

When we click on the Restart button, the presentation starts.

Several multimedia authoring tools which use this icon concept are Authorware and IconAuthor. These two software can support multi platforms.
The card concept in authoring tools are based on the idea of card stacks containing graphics, audio, video, text and animation.

Elements and events in card concept authoring tools are organised as pages in a book or a stack of cards.

When card concept authoring tools starts, a blank page is displayed. Certain objects can be inserted e.g. text, pictures and buttons.

By inserting objects into several pages, a multimedia "book" is eventually created.
4.0 MULTIMEDIA

The developer can create transitions between pages and on the objects themselves. Zoom text in and out, causing a picture to flow onto the page.

Examples of the card concept in Authoring Tools are ToolBook, HyperCard and SuperCard.

ToolBook uses the Windows platform. Hypercard and Supercard uses the Macintosh platform.

**EXTENSION : CRITERIA IN EVALUATING AN AUTHORING TOOL**

- It should be easy to use; thus non-programmers do not have to learn a programming language in order to develop multimedia courseware.
- It should have ready-made templates, including popular buttons or signs and navigation tools.
- It offers compatibility with the World Wide Web.
- It has on-line help and learning aids.
WEB EDITOR

Web editor is a program that you use to create Web page. It can be something as simple as the text editor that came with your operating system. It can be something as simple as the text editor. It can also be something that creates the Websites as you point and click away.

A Web page is written in Hypertext Markup Language (HTML) which is a set of "markup" symbols inserted into a file for a display on the World Wide Web (WWW) browser.

```html
<html>
<head>
<title>Ali's Web Sites</title>
</head>
<body>
<p align="center"></p>
<p align="center"><font face="Arial" style="font-size: 25pt">Ali's Web Sites</font></p>
</body>
</html>
```

The markup tells the Web browser how to display a Web page.
There are two types of Web editors. They are text-based and What You See Is What You Get (WYSIWYG).

**TEXT-BASED EDITOR**

A text-based Web editor is a basic editor where you work with Hypertext Markup Language (HTML) tags to create a Web page.

It can be used to change HTML source codes.

Using a text-based Web editor requires you to have HTML knowledge to get started.
Software such as Notepad and PSPad are examples of text-based editors.

PSPad has additional functions that include syntax highlighting and toolbars.

**WYSIWYG WEB EDITOR**
4.0 MULTIMEDIA

WYSIWYG is an acronym for What You See Is What You Get. WYSIWYG web editors provide an editing interface that shows how the pages will be displayed in a web browser.

Using a WYSIWYG editor does not require any HTML knowledge. It is easier for an average computer user.

Examples of WYSIWYG web editor are Microsoft FrontPage and Macromedia Dreamweaver.

CHARACTERISTICS OF TEXT-BASED EDITORS AND WYSIWYG EDITORS

User friendly - a text-based editor is less user friendly compared to a WYSIWYG editor.
4.0 MULTIMEDIA

Junk HTML – There is no junk HTML in text-based compared to WYSIWYG editors.

HTML knowledge – A text-based editor requires HTML knowledge compared to WYSIWYG editors.
4.0 MULTIMEDIA

Inserting a specific tag – It is hard to insert a specific tag using a text-based editor compared to WYSIWYG editor.

Visualize the design – a text-based editor cannot visualize the design compared to a WYSIWYG editor.
The differences between the text-based editor and WYSIWYG editor.

<table>
<thead>
<tr>
<th>Text-based editor</th>
<th>WYSIWYG editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less user friendly</td>
<td>More user friendly</td>
</tr>
<tr>
<td>No junk HTML</td>
<td>Has junk HTML</td>
</tr>
<tr>
<td>Requires HTML knowledge</td>
<td>No HTML knowledge needed</td>
</tr>
<tr>
<td>Difficult to insert a specific tag</td>
<td>Easy to insert a specific tag</td>
</tr>
<tr>
<td>Cannot visualise the design</td>
<td>Easy to visualise the design</td>
</tr>
</tbody>
</table>

**EXTENSION : WEB SITE BUILDER**

A Web site builder is a software application that lets users create a Web site. It will offer the user a collection of templates and can be modified by the user.
User interface is a program that provides an interface or medium for humans to interact with the system.

USER INTERFACE PRINCIPLES

User interface is a way a computer program communicates with the person who is using it. There are eight main principles of the user interface.

1. Consistency
2. Clarity
3. Context
4. Navigation
5. Search
6. Personalisation
7. Learnability
8. Flexibility

CONSISTENCY

Consistency means the interface design is in harmony and the same applies to all screen in a software program.

The same words or commands perform the same functions throughout the user interface.
CLARITY

Clarity means clearness of labels on all icons to make the system easy to understand. Users should use relevant icons or graphics to indicate the information.

Icons, words or commands should be clearly labelled so that users can understand them easily.

CONTEXT

Context means every part of a lesson should be relevant to a particular title. Ideas presented need to relate to the title.

The user interface should be structured. For example, if the lesson is about Flow Chart, all the sections including the introduction, content, activity, evaluation, summary and extension should be related to the Flow Chart.
NAVIGATION

Navigation means users can move around the menus, help files or other screens in a system.

SEARCH

Search means the system enables users to search keywords or glossary. The user interface should have a search function. It should provide multiple ways for users to make queries by grouping or sorting.

The system should provide users a preview in order to get a word in the correct page.

LEARNABILITY

Learnability means the system provides support information and help files to make the system easy to understand.

Support information is important, especially in helping the user to use the system.

The help function should be available to speed up the interaction for both experienced and inexperienced users.

FLEXIBILITY

Flexibility means a user has the authority to navigate through all the sections without any limitations.

For example, the user is allowed to access any of the lessons, sections and pages of the program.
PERSONALISATION

Personalisation means the users can make their own personal or individual learning.

Users can choose their display options.

EXTENSION : GRAPHICAL USER INTERFACE (GUI)

Graphical User Interfaces is a set of screen presentations that utilise graphic elements such as icons to make an operating system easier to use.

Graphical User Interfaces, such as Microsoft Windows has the following basic components:

**Pointer:** A symbol that appears on the display screen that you move to select objects and commands.

**Icons:** Small pictures that represent commands, files, or windows. By moving the pointer to the icon and pressing a mouse button, you can execute a command or convert the icon into a window.

You can also move the icons around the display screen as if they were real objects on your desk.

**Desktop:** The area on the display screen is referred to the desktop.

**Windows:** You can divide the screen into different areas. In each window, you can run a different program or display a different file.

You can move windows around the display screen, and change their shape and size as well.

**Menus:** Most graphical user interfaces let you execute commands by selecting a choice from a menu.

These features has made Microsoft Windows easy to use and a popular operating system.
LESSON 9
INSTALLATION OF TOOLBOOK ASSISTANT 2004

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Minimum requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer</td>
<td>Pentium @ 166</td>
</tr>
<tr>
<td>RAM (Random Access Memory)</td>
<td>32 MB of RAM for playback and 48 MB of RAM for composing</td>
</tr>
<tr>
<td>Hard disk space</td>
<td>70MB</td>
</tr>
<tr>
<td>Operating system</td>
<td>Microsoft Windows 95 Release 2 or later</td>
</tr>
<tr>
<td>Graphic card</td>
<td>A Video Graphic Adapter (VGA) to show at least 256 colours at a resolution of 640 x 480 pixels.</td>
</tr>
</tbody>
</table>

INSTALLING TOOLBOOK ASSISTANT 2004

1. Insert the CD into the drive.
2. The installation wizard will pop up.
3. Click the Next button.
4. Agree to the license agreement.
5. Enter your customer information.
6. Choose the destination location for the installation.
4.0 MULTIMEDIA

EXPLORE THE INTERFACE OF TOOLBOOK 2004
4.0 MULTIMEDIA

ADDING MULTIMEDIA ELEMENTS INTO TOOLBOOK

Go to Quick Start Tab choose Blank Native ToolBook Book and click ok.

Confirm Deployment method dialog box pops up. Read through the message and click yes.

Adjust screen.

Draw some objects. Click on the Catalog. Choose draw objects and double click circle and triangle.
4.0 MULTIMEDIA

Adjust and resize the shapes.

Add colours to the shapes.

To make the triangle behind the circle, Right click the triangle and click properties, change layer 2 to layer 1. Then close the properties box.

To close ToolBook, click file, then click exit or press Alt+F4.

Save this project in your student folder.
EXTENSION : TOOLBOOK AUTOPACKAGER

Toolbook Autopackager utility gathers all the files together in the same directory.

The AutoPackager wizard will walk you through the steps to create this installation set.
4.0 MULTIMEDIA

AutoPackager will scan this book for required multimedia files such as video clips and images. To include other files in your package, such as audio files, place them in this book's directory or in subdirectories of it, and check the appropriate box.

Include all files in this book's directory

You have selected to distribute your application via compact disk and have an Autorun file created.

Do you want the Authorrun file to automatically run the ToolBook application being packaged or to the Install application?

- Run installation application
- Run ToolBook application

You may provide your score with the optional Custom Setup. A user who chooses a Custom Setup will see a list of the components of your application and be able to choose which components will be copied to the hard disk. Unselected components will remain on the compact disk, requiring the compact disk to be inserted for the application to run.

Provide the Custom Setup option to users
ToolBook Assistant 2004 is an authoring tool used by non-technical people to create Web-based training, computer based training, and interactive e-learning contents.

Wizards, templates and catalog make it easy for teachers, students and staff to learn and use.

Features like the drag-and-drop environment do not require any programming. It enables fast and easy creation of online content.

THE FEATURES OF TOOLBOOK ASSISTANT 2004

Supports a wide range of multimedia elements:
ToolBook Assistant 2004 allows users to integrate text, graphic, audio, video, hyperlinks and variety of exercises.

Easy-to-use and powerful hyperlink objects:
The hyperlinks can link to a variety of elements such as documents, pop-ups, Web pages and applications.

Synchronisation Tool:
Coordinating images and sound in time becomes a very simple task that can be performed by anyone without specialised skills.

Easy document editing:
With ToolBook Assistant 2004, the design of interactive multimedia training courses are fast and easy. Work is done directly in a WYSIWYG environment.

There are many functions in this application. For example, drag and drop user interface allows users to immediate in creating multimedia presentation.

Test the document at any time:
Using the reader mode, we can preview our multimedia presentation. While using the author mode, we can edit multimedia documents.

A variety of Customisable Learning Templates:
To speed up and simplify the multimedia presentation, ToolBook Assistant 2004 provides a variety of templates that can easily be customised by users.
Course Publishing Made Easy:
The multimedia presentation can be automatically published in any of the available delivery formats, including publishing to Web and CD-ROM.

Compliance HTML courseware:
ToolBook Assistant 2004 is an e-Learning solution for HTML Web-based courseware content. The courseware can be viewed with Internet Explorer, Netscape Navigator and Mozilla Firefox.

**Main features of ToolBook Assistant 2004:**
- Supports a wide range of multimedia elements
- Easy-to-use and powerful hyperlink objects
- Synchronisation Tool
- Easy document editing
- Test the document at any time
- A variety of customisable learning templates
- Fully customisable pre-defined exercises
- Course publishing made easy
- Compliance HTML courseware

CREATE A BOOK WITH QUICK SPECIALIST
CREATING QUESTIONS

TRUE/FALSE

The interaction between a user and multimedia program involves the use of text, graphics, audio, video and animation.
4.0 MULTIMEDIA

MULTIPLE CHOICE

Companies nowadays make multimedia ________ to promote their products.

- catalog
- indirectly
- opportunity
- encyclopedias

Correct!

FILL IN THE BLANK

1. Multimedia generally means the use of various

Show Score
High-quality interactive multimedia applications are the products of a production team.

A multimedia team will produce fine-quality high-end applications such as games, information kiosks, commercial training and educational applications. They are usually produced by a specialised team.

MULTIMEDIA PRODUCTION TEAM

A multimedia production team consists of a Project Manager, Subject Matter Expert (SME), Graphic Artist, Audio-Video Technician, Instructional Designer and Programmer.

THE PROJECT MANAGER’S ROLES

The Project Manager’s roles are to define the scope of the project and discuss with the client.

A project manager has to search for financial resources, equipment and facilities.

The project manager also needs to coordinate the production team.
THE SUBJECT MATTER EXPERT'S ROLE

The Subject Matter Expert's role is to do research on the content of a multimedia program.

The Subject Matter Expert has to provide content for the multimedia content.
THE GRAPHIC ARTIST'S ROLE

The Graphic Artist's role is to develop the graphic elements of the program such as backgrounds, buttons, photo collages, 3D objects, logos and animation.

THE AUDIO-VIDEO TECHNICIAN'S ROLE

The Audio Technician is responsible for recording the voice. He edits the sound effects. He records and edits music. The Video Technician is responsible for capturing, editing and digitizing the video.
THE INSTRUCTIONAL DESIGNER'S ROLES

The Instructional Designer's roles are to decide on the best educational strategies and practices to present the information.

THE PROGRAMMER'S ROLE

The Programmer’s role is to write the program code lines or scripts using the authoring tool.

He combines the multimedia elements into a multimedia program.
New technology has now made it very easy for many people to access the Web.

Designing interesting Web sites is very important for many businesses.

The webmaster's main job is to create and maintain the Web site.

He should be able to integrate the multimedia elements into a Web page.

He also handle enquiries and feedback.
LESSON 12
MULTIMEDIA PRODUCTION PHASES

A multimedia program are developed by multimedia developers that must go through multimedia production phases.

Multimedia developers have to plan a series of phases to produce multimedia application.

PHASES IN MULTIMEDIA PRODUCTION

There are six phases involved in the production of a multimedia project.

The six phases involved can be categorised into 3 main stages.
Pre-production is the process before producing the multimedia project.

Production is the process of producing the multimedia project.

Post-production is a process after producing the multimedia project.

OVERVIEW OF THE PHASES

Analysis Phase
During the Analysis Phase, the multimedia developers interview the clients to find out their needs and write the Problem Statement and a Proposal.

Design Phase
Based on the needs of target users, the multimedia developer will design a Flow Chart and Storyboard. This phase is known as the Design Phase.

Implementation Phase
Once the Storyboard is confirmed, the multimedia developers will start Implementation Phase.

The Implementation Phase refers to the process of converting the design plan into a multimedia program. This is the phase where the multimedia program is produced.

Testing Phase
The multimedia developers will use a Checklist to test the multimedia program. If there are any errors, the programmer will fix the program.

Evaluation Phase
In the Evaluation Phase, selected users will use an Evaluation Form to try out the program and give feedback.

Publishing Phase
Finally, when the multimedia program is completed, it will be published to CD.
Many multimedia production companies try to shorten the production phase. One of the ways is to use a prototype.

Prototype means a standard or model example.

A prototype is a basic model of a new multimedia program that is to be developed.

This is done so that the new design can be tested and changed before the stage of actual production.

By using a prototype, users can help to decide suitable designs of the multimedia project.
The Analysis Phase is the main phase of a multimedia production.

It will enable multimedia developers to set the focus of the project.

In this phase, the multimedia developers will identify the project title, problem, objectives, possible solution and target users.

### PROBLEM STATEMENT AND PROPOSAL

#### EXAMPLE

We are to develop a multimedia project for our school. From observations we found that students need to be informed on the danger of drugs.

The followings are questions that we can use to determine the focus of our project:

- **What is the project title?**
- **What is the problem?**
- **What are the objectives to achieve?**
- **What is the possible solution to the problem?**
- **Who are the target users?**
We need to analyse the findings and identify the problems.

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>RESPONSE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Title</td>
<td>Say NO To Drugs</td>
</tr>
<tr>
<td>Problem</td>
<td>Students do not know about the dangers of drugs.</td>
</tr>
<tr>
<td>Objectives</td>
<td>- to inform about the dangers and effects of taking drugs</td>
</tr>
<tr>
<td></td>
<td>- to show prevention measures of discouraging students from taking drugs</td>
</tr>
<tr>
<td>Possible solution</td>
<td>Multimedia project containing text, audio, video, animation and graphics.</td>
</tr>
<tr>
<td>Target users</td>
<td>Students</td>
</tr>
</tbody>
</table>

After identifying the problems, write a Proposal for a multimedia project.

**Proposal**

This multimedia project is about the campaign “Say NO To Drugs” for students. In this project, students will be informed of the dangers and effects of taking drugs. Steps taken to discourage students from taking drugs will be discussed.

**EXTENSION : ANALYSIS TOOLS**

In order to understand a problem, we need to use analysis tools. These tools will point out what needs to be done.

There are three types of analysis - namely the Focus Group Analysis, Content Analysis and Goal Analysis.
4.0 MULTIMEDIA

**QUESTIONNAIRE**
As you probably know, we are developing a multimedia presentation about the ICT training program. We request your completion of this questionnaire to help us learn more about your training and information needs and preferences. The information you and others provide will assist us in our continuing effort to provide better multimedia presentation.

Thank you for your time and assistance.

1. To help us evaluate your answers, please indicate by checking...
   - your computer experience.
   - 1 year or less
   - 5 to 9 years
   - 2 years
   - 10 years or more

**CONTENT ANALYSIS FORM**
Subject Area Title: Multimedia presentation on ICT training program
**Content Description and Relevant Definitions:**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Tools Used</th>
<th>Standards for Performance</th>
<th>Conditions of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Web based ICT training program</td>
<td>Web browsers</td>
<td>Weak</td>
<td>Average</td>
</tr>
</tbody>
</table>

**GOAL ANALYSIS FORM**

<table>
<thead>
<tr>
<th>Procedures</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1 - Form a goal.</td>
<td>Develop a Web based ICT training program.</td>
</tr>
<tr>
<td>Step 2 - Brainstorming:</td>
<td>1. Students demonstrate skills learned practically.</td>
</tr>
<tr>
<td>Step 3 - Sort the items listed in step 2.</td>
<td>2. Students are able to explain concepts behind the skills.</td>
</tr>
<tr>
<td>Step 4 - Write a sentence to describe the items in step 3.</td>
<td>3. Students are able to answer an evaluation test.</td>
</tr>
<tr>
<td>Step 5 - test the sentence for completeness.</td>
<td>At the end of this ICT training program, students are able to achieve skills learned by demonstration.</td>
</tr>
<tr>
<td></td>
<td>Students shows skills learned through ICT training program.</td>
</tr>
</tbody>
</table>

**ANALYSIS TOOLS**

<table>
<thead>
<tr>
<th>Types of analysis</th>
<th>Types of form used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus Group Analysis</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>Content Analysis</td>
<td>Content Analysis Form</td>
</tr>
<tr>
<td>Goal Analysis</td>
<td>Goal Analysis Form</td>
</tr>
</tbody>
</table>

Focus Group Analysis uses the Questionnaire to find the needs of target users.

The Content Analysis helps multimedia developers to choose the contents for the multimedia program by using Content Analysis Form.

In Goal Analysis, we use the Goal Analysis Form to guide multimedia developers.

It helps them to set up the focus of the project.
Before any product or invention can be made, it needs to be designed. Similarly, in producing a multimedia program, design plays an important role.

**DESIGN PHASE**

The Design Phase is the second phase in multimedia production.

The Design Phase refers to the planning of the design of the multimedia program to be developed.

There are two popular tools used in the Design Phase, namely the Flow Chart and Storyboard.

**FLOW CHART**

In the example of "Say NO To Drugs", the multimedia developers drew a Flow Chart.

Flow Charts help multimedia developers to lay out the flow of a multimedia program.
STORYBOARD

Storyboards are rough sketches of everything that are included in a multimedia program.

The multimedia developers write a Storyboard for the program based on the Flow Chart.

In the Storyboard, we have to consider the content of the program, navigational system to be used and the layout of the program.

Next, multimedia developers produce the Storyboard in detail.
The storyboard lays out how the multimedia elements are to be put in a multimedia program.

**CASPER SCREEN DESIGN PRINCIPLES**

Screen design refers to how the multimedia program will look when it is displayed on the computer screen.

In screen design, CASPER design principles are used.

**CONTRAST**
Contrast refers to the usage of different types of multimedia elements.

It is one of the way to make the multimedia program more attractive.

Alignment refers to the arrangement of multimedia elements on the screen.

For example, graphics or text should be arranged at the most suitable position.

**SIMPPLICITY**
Simplicity refers to the simple and easy way of presenting the multimedia program. For example, using a simple design with less graphics, animation and text makes the multimedia program more attractive and easy to understand.

**PROXIMITY**
Proximity refers to the concept of grouping a similar or related element. For example, the arrangement of "Main Menu" and graphics must be in one group.
EMPHASIS
Emphasis refers to creating the focus point on the screen. It will highlight the important part of the screen to attract the user's attention.

REPETITION
Repetition refers to the concept of repeating the same texture, colour, size of font and style in the multimedia program. Repetition adds a visual interest into the multimedia program.

CASPER principles are used to make sure that the multimedia program is user-friendly.

EXTENSION : WEB DESIGN STORYBOARD
A Web Design Storyboard is an outline of what your Web site will include before it is actually created.

A business Storyboard may include: Main page or index, About us, Services offered, Product offered, Contact us.

It needs to include the title, navigation buttons, content and graphics.
IMPLEMENTATION PHASE

The third phase of multimedia production is Implementation.

In the Implementation Phase, the multimedia developers will convert a design plan such as a Storyboard into a multimedia program. This is the phase where the multimedia program is produced.

In the Implementation Phase, we use Toolbook Assistant 2004 as the authoring tool to integrate the multimedia elements.

IMPLEMENTATION OF PROGRAM

See demonstration from the CD.

CREATING TEXTS

Insert text in the presentation area. Look at the storyboard and create the text as stated in the storyboard.

See demonstration from the CD.

INSERTING GRAPHICS

We can insert graphics by taking pictures using a digital camera, scanning printed photo through a scanner and downloading pictures from the internet.

See demonstration from the CD.

INSERTING ANIMATION

Animation can be applied on the graphics we have inserted.

See demonstration from the CD.
4.0 MULTIMEDIA

INSERTING AUDIO

Before inserting the audio we must make sure that the audio format complies with the multimedia authoring software we are using.

We can obtain audio files by recording our voices in a digital form, downloading audio from the Internet and creating our own audio file by using a special software.

*See demonstration from the CD.*

INSERTING VIDEO

We can get video files by using a digital video camera, downloading video files from the Internet, creating our own video files and buying ready-made videos from multimedia publishers.

*See demonstration from the CD.*

INSERTING HYPERLINK

Another element that will apply in the Implementation Phase is the interactivity, we let the user use our multimedia program according to their needs.

To do so, hyperlinks are used. Each page can be linked through objects or text in the presentation area.

*See demonstration from the CD.*

EXTENSION: COPYRIGHTS

Producers and users of multimedia programs need to be aware of copyright laws and abide by them. Multimedia productions combine a variety of elements from many different sources.

It is important to know that the use of these materials must be legal and does not go against copyright laws. In most cases you have to pay to use other people’s material.

It is also necessary to be aware of copyright issues for elements we use in the Implementation Phase.

Use royalty free audio, video, animation and graphic downloaded from Web sites.
4.0 MULTIMEDIA

Learn more about copyrights on the Internet and Cyberlaw from the following Web sites:

http://publishing.wsu.edu/copyright/internet_copyright/
http://www.piercelaw.edu/tfield/copynet.htm#aut
http://www.cyberspacelaw.org/dogan/index.html

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TESTING PHASE

The Testing Phase begins after the Implementation Phase.

The Testing Phase involves multimedia developers.

The purpose of testing is to ensure that the program runs correctly without errors.

CHECKLIST

Sample of a Checklist used for a multimedia program.

In this Checklist the aspects focused are content, interface and navigation.

Multimedia developers usually test the content, interface and navigation of multimedia program.

The content refers to the goals of the program, text, graphics, audio, video, animation, language used and how informative the program is.

For the interface, CASPER principles are used for the items in the multimedia program.

They are Contrast, Alignment, Simplicity, Proximity, Emphasis and Repetition.

For Navigation, aspects tested are the navigation aids and consistency.

GO THROUGH A CHECKLIST
Test the program using the checklist.

It is important to test the design and the functions of the multimedia program that we have developed.

After testing, the program is then fixed.

**EXTENSION : ALPHA AND BETA TESTING STAGES**

When we test a multimedia program, we must make sure our product is error-free.

The Alpha testing is about testing the newly developed product at the developer's site.

Then, a group of selected users would test the revised product at their computers.

This type of testing is known as Beta testing.

After that, the final release of the product will be delivered to the target users.
EVALUATION PHASE

The Evaluation Phase begins after the Testing Phase. Selected users are involved in the evaluation of multimedia programs.

The Evaluation Phase focuses on overall presentation and effectiveness of the multimedia.

EVALUATION FORM

Evaluation of the product needs to be evaluated in 2 aspects: content and user interface.

In the presentation of the contents, all items are complete and all key ideas have been included.

A suitable introduction, reason, effect, prevention and conclusion make up the key ideas of the content.

A good user interface will have consistency, clarity, context, navigation and flexibility of the multimedia program.

The Evaluation Form has features that allow selected users to check the multimedia program. They can give their remarks based on the features.

See demonstration from the CD.
Before publishing the multimedia program, we need to test and evaluate the program thoroughly to ensure they are free from error.

We also need to confirm the program is finalised and there would not be any modifications and changes.

**PUBLISHING PHASE**

The Publishing Phase is the last phase in a multimedia production. Generally, we have two options of mediums used in delivering multimedia contents.

First, multimedia can be delivered through Web pages. Thus, we can package our multimedia program to be a Web-based multimedia.

Secondly, multimedia can be delivered through compact discs.

**PRODUCING A MULTIMEDIA CD**

By using the AutoPackager wizard, multimedia developers are able to gather all the necessary multimedia files such as audio, graphics and video into an installation set.

The installation set makes the "Say NO To Drugs" program run automatically.

*See demonstration from the CD.*
PRODUCING A CD, CD COVER AND CD LABEL

In the Publishing Phase, the process of producing a CD and its cover is done.

Multimedia developers require a CD writer to produce a multimedia CD.

Use the software that comes with the CD writer to produce the CD.

See demonstration from the CD.

Use the software that comes with the CD writer to produce the CD cover and CD label.

See demonstration from the CD.
CASING FOR PACKAGING

In this phase, the casing for packaging also needs to be considered. Here is an example of a CD jewel case. It is a three-piece plastic case that usually contains a compact disc along with an insert for a CD cover and an inlay.

CD sleeves are another popular solution for storing CDs.

EXTENSION: DUPLICATION AND REPLICATION

The first step to be taken in duplication or replication of CDs is to have a master copy of the program. A CD-ROM Writer or a DVD-ROM Writer is more suitable for duplication.

If many copies need to be produced, then the replication process should be taken. It reduces cost and time.

The types of equipment involved in replication are recorders, tower, automated, copies, CD printers and other packaging equipment.

Replication of CDs are normally done by an established replication factory.
To produce a multimedia project, we need to undergo a series of steps. We must go through the Analysis Phase to define our project title.

We need to gather the materials such as text, graphics, audio, video and animation.

We use Toolbook Assistant 2004 as the authoring tool to create a multimedia program.

We need to test our program. We also need someone to evaluate the program and give feedback.

Once we are satisfied with the program, we can use a CD writer to produce a CD.

**PRODUCING A MULTIMEDIA PROGRAM**

Co-curriculum activities are important to students. Students will need to join a society, a sports club and a uniformed body.

As you analyse the problem faced by students, you found that students have problems in selecting suitable co-curriculum activities for themselves.

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>RESPONSE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Title</td>
<td>Reporters’ Club</td>
</tr>
<tr>
<td>Problem</td>
<td>- not enough promotion given on the Reporters’ Club</td>
</tr>
<tr>
<td></td>
<td>- lack knowledge in selecting suitable co-curriculum activities</td>
</tr>
<tr>
<td>Objectives</td>
<td>- promote Reporters’ Club</td>
</tr>
<tr>
<td></td>
<td>- to recruit new members</td>
</tr>
<tr>
<td>Possible solution</td>
<td>Multimedia project containing text, audio, video, animation and graphics.</td>
</tr>
<tr>
<td>Target users</td>
<td>Students</td>
</tr>
</tbody>
</table>

One of the causes of the problems is that there is not enough promotion given to the students on co-curriculum activities.

Being in the Reporters’ Club, you need to produce a multimedia program for the club. This program will promote the club and you will be able to recruit new members.

Based on the problem analysis, we write the Problem Statement and a Proposal.
DESIGNING THE MULTIMEDIA PROGRAM

In the Design Phase, the Flow Chart and Storyboard are used.

The Flow Chart will show the flow of the program.

EXAMPLE OF A PROPOSAL

This multimedia project is about the promotion on “Reporters’ Club”. In this project, students will be informed of the activities on Reporters’ Club. Benefits of joining the Reporters’ Club will be mentioned to recruit new members.

Multimedia developers will provide the Storyboard.
MULTIMEDIA PRODUCTION TEAM

A multimedia production team consists of a Project Manager, Subject Matter Expert (SME), Graphic Artist, Audio-Video Technician, Instructional Designer and Programmer.

PREPARE RESOURCES

We need to prepare our resources before the project begins.

Our main resource for content matter is in text form. Most of the time, this comes through the Storyboards provided by the content writers.

Other sources for text would be from the Internet, school textbooks and other reference books in the market.

We can use the ready made animation tools provided by the multimedia authoring software. Besides this, free animation can be downloaded from the Internet.

We can gather graphics by taking pictures with digital cameras, scanning printed photos with scanners and downloading pictures from the Internet.

Firstly, we must confirm that our audio resources comply with the audio formats of the multimedia authoring software that we are using.
We can obtain audio files by recording voice overs in digital form, downloading audio from the Internet and creating our own audio files by using audio editing software.

We can gather video resources by using digital video cameras, downloading video files from the Internet, creating our own video files and buying ready made video from multimedia publishers.

**IMPLEMENTATION PHASE**

*See demonstration from the CD.*

**APPLY MULTIMEDIA PRODUCTION PHASES**

After you have completed your multimedia program, you can use the checklist to view your program.

Test the functionality of your program. See whether your program fulfills the criteria in the Checklist. If the multimedia program has problems, fix and repair it.
After testing, you can ask your friends to help you evaluate your program. It is advisable to let other people such as your teacher, club advisor or your principal to evaluate your program.

When everything is finalised, you can proceed to package your CD by using Autopackager. You need to use a CD writer to produce the multimedia program. You can also design your CD cover and CD label.

EXTENSION: WHAT IS PROJECT MANAGEMENT?

Project management is about managing resources. There must be enough resources for the project to finish on time. These resources must also be within budget. The satisfaction of the end user should be the final aim of project management.

Projects are planned to be completed within a period of time. Project management can be divided in this way:

Division into sub-tasks
This means breaking down the overall task into a series of sub-tasks.

Team allocation
People with different skills are brought together to work as a team.

Working in teams means that the expertise of individuals can be grouped together. Ideas can be shared and developed dynamically.
INTRODUCTION TO IMMERSIVE MULTIMEDIA

The history of Immersive Multimedia began with the concept of Virtual Reality.

In the late 1960s, the desire of computer scientists and artists was to create, digitally-made ‘near-to-reality’ experiences through Interactive Multimedia.

This became known as Virtual Reality. Virtual Reality, today, is a computer-created environment that a user can experience through the senses of sight, hearing and touch.

Immersive Multimedia is a combination of multimedia elements and interactivity in Virtual Reality.

EXAMPLE OF IMMERSIVE MULTIMEDIA

Education

Medical students today can perform surgical operations on virtual patients.

This enhances learning as these students can freely practice doing many operations without any risks.
Business

Virtual tours give you a 360 degree view of physical space. These tours provide customers with a detailed viewing experience.

Customers can navigate through the environment as if they are taking a walk-through tour.

Come of these virtual tours even allow customers to add their own design.

Immersive Multimedia is very useful for property agents and hotels.

Entertainment

Video games like the Star Wars, Ages of Empire II, Worldwide Soccer Manager and The Sim2 brings its players to take on different roles and live in different environments and lifestyles.

Another popular application in entertainment is "Home for PlayStation3".

"Home for PlayStation3" is where the user becomes a resident in a 3D virtual world. This virtual world has its own population, social activities and virtual lands where the residents can own and live in.

EXTENSION : VRML

VRML, also pronounced as 'ver – mul’, is the term for Virtual Reality Modeling Language. V

RML is a programming language used to create 3D interactive graphics or environments for use on the Internet, such as virtual galleries and virtual gaming.

It is also used to develop multimedia presentations where users can interact with animation, sound, lighting and other objects in a virtual world.