

Multi-Media System

The term “Multi-Media” derived from the word “Multi” and “Media”

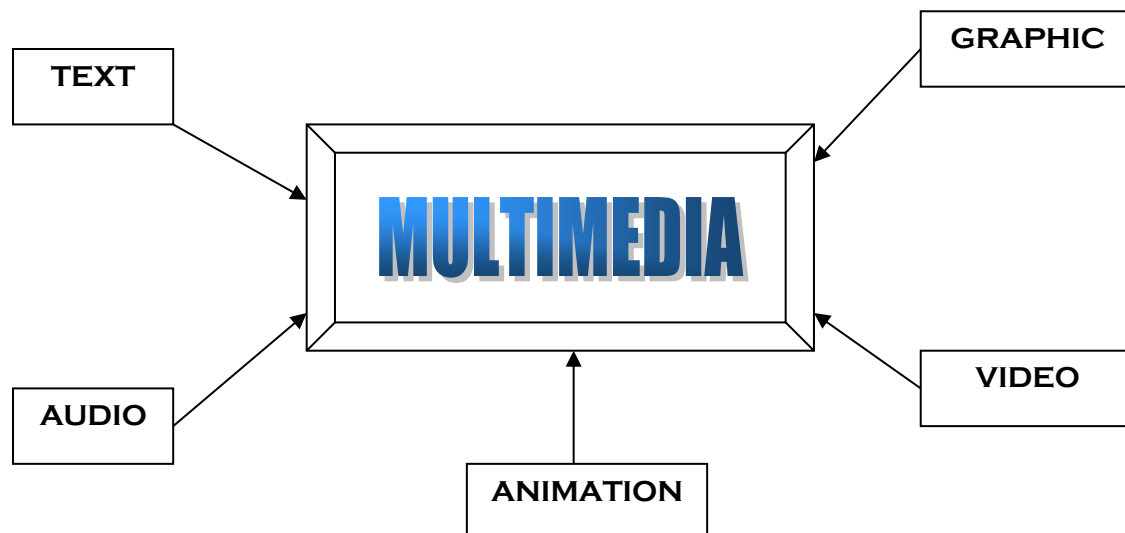
Multi, Many, Multiple,

Media: Tools that is used to represent or do a certain thing.

Delivery medium, a form of mass communication – newspaper, magazine / tv.

Distribution tool information presentation – text, graphic, voice, images, music etc.

Multimedia is a combination of text, graphic, sound, animation, and video that is delivered interactively to the user by electronic or digitally manipulated means.



1. The Five Elements of Multimedia

Multimedia fall into one of five main categories and use varied techniques for digital formatting. One or any combination of this content can be used to enhance

your website or social media platform. Here's an overview of each of the multimedia elements:

1.1 Text

Text is a component of multimedia. The text consists of alphanumeric characters, which are used to create information. The text provides information that has a meaning. Text is the simplest data type that requires the least storage. We can design the text accordingly. As a multimedia option, text can easily be overlooked, but it is still the most fundamental element and most effective way to communicate in multimedia. Text is used as headlines, subtitles, and slogans. Its purpose is to express specific information or reinforce information in other media. It involves the use of text types, sizes, colors, and background color. For example, you can choose the font and its size and color to set a tone or project an image, or you can choose the mood you want to evoke with background color. Text can make the intended message you want to convey through multimedia more understandable, it can be used as an alternative in case a digital image is not available in a visitor's browser, and other media or related information can be accessed by clicking on text links. Text options in multimedia are limitless.

- **.doc** and **.docx** - [Microsoft Word](#) file
- **.odt** - [OpenOffice](#) Writer document file
- **.pdf** - [PDF](#) file
- **.rtf** - [Rich Text Format](#)
- **.tex** - A LaTeX document file
- **.txt** - Plain text file
- **.wpd** - WordPerfect document

1.2 Graphics

Graphics are an important part of multimedia because humans are visually oriented. Images including photographs, illustrations, drawings, clip art, icons, or

any other non-text elements on a website or in social media are an example of graphics. There is no movement in these types of pictures. Still/static pictures typically accompany text to illustrate the point or ideas the text makes. Photos in a multimedia application go beyond using them just as decoration. In a multimedia context graphics may consist of slide shows or galleries that a website or social media visitor can view. They may have click ability that leads the viewer to another element, such as audio or video. Graphics appear in many multimedia applications providing communication through attractive visual effects.

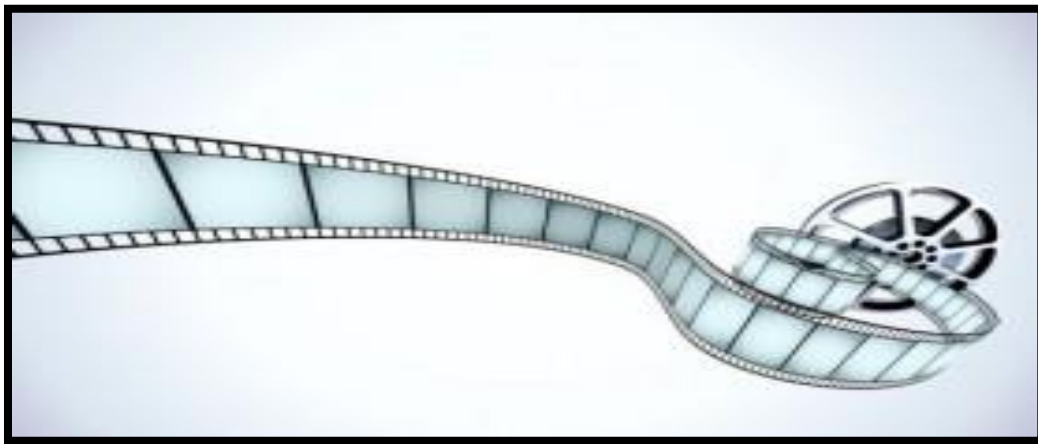


- **.ai** - [Adobe Illustrator](#) file
- **.bmp** - [Bitmap image](#)
- **.gif** - [GIF image](#)
- **.ico** - [Icon](#) file
- **.jpeg** or **.jpg** - [JPEG image](#)
- **.png** - [PNG image](#)
- **.ps** - [PostScript](#) file
- **.psd** - PSD image
- **.svg** - Scalable Vector Graphics file
- **.tif** or **.tiff** - [TIFF image](#)

1.3 Animation

Animated elements are common multimedia applications. Animation is a series of images put together to give the effect of movement. In multimedia, 2D and

3D digital animation is used. Movement, rather than just viewing a still image, is especially useful for illustrating concepts that involve movement. Animation is used to add visual interest or bring attention to important information or links. It can illustrate how things work or present information in entertaining ways. Animation can also include interactive effects allowing visitors to engage with the animation action using their mouse and keyboard. Animation is a dynamic and media-rich content that stays within one container on a page – a very powerful form of communication.



- 1. Animated GIF**
- 2. SWF**
- 3. MOV**
- 4. AVI**

1.4 Audio

Sound can enhance your website design and social media platforms. It is a multimedia application that uses dialogue, recorded narration, music, and sound effects. These are called the audio or sound elements. When used in moderation,

adding multimedia such as sound to your presentation can be a great way to catch and focus the visitor's attention, to deliver information to visitors, and to help reinforce the visitor's comprehension of the information presented. For example, narration can be used to describe what is being seen in an animation clip enhancing the understanding of what the clip is all about. Featuring related music and special sound effects are also very effective multimedia applications that can add to the visitor's experience.

There are several [audio](#) file formats, standards, and file extensions used today. Below is a list of the most common audio file extensions.

- **.aif** - AIF audio file
- **.cda** - CD audio track file
- **.mid** or **.midi** - [MIDI](#) audio file.
- **.mp3** - [MP3](#) audio file
- **.mpa** - [MPEG-2](#) audio file
- **.ogg** - Ogg Vorbis audio file
- **.wav** - [WAV](#) file
- **.wma** - [WMA](#) audio file
- **.wpl** - Windows Media Player playlist



1.5 Video

Video is a visual multimedia application that combines a sequence of images to form moving pictures and sound. Video can have an impact on websites and on social media platforms in a unique and powerful way. You can inform the world that your company exists, spread the word about your company, grab attention to show your visitors how to do something, showcase a new product, build brand awareness, or even promote an upcoming event. You name it, you can do it with video!

Video on websites, and especially on social media platforms, already has a great presence and will only continue to gain popularity as more and more visitors demand

it. Social media sites like Facebook, Twitter and LinkedIn all provide video integration capabilities which allow marketers to share relevant videos on these platforms. Short videos can be a smart marketing advantage and an excellent way to differentiate yourself from your competitors.



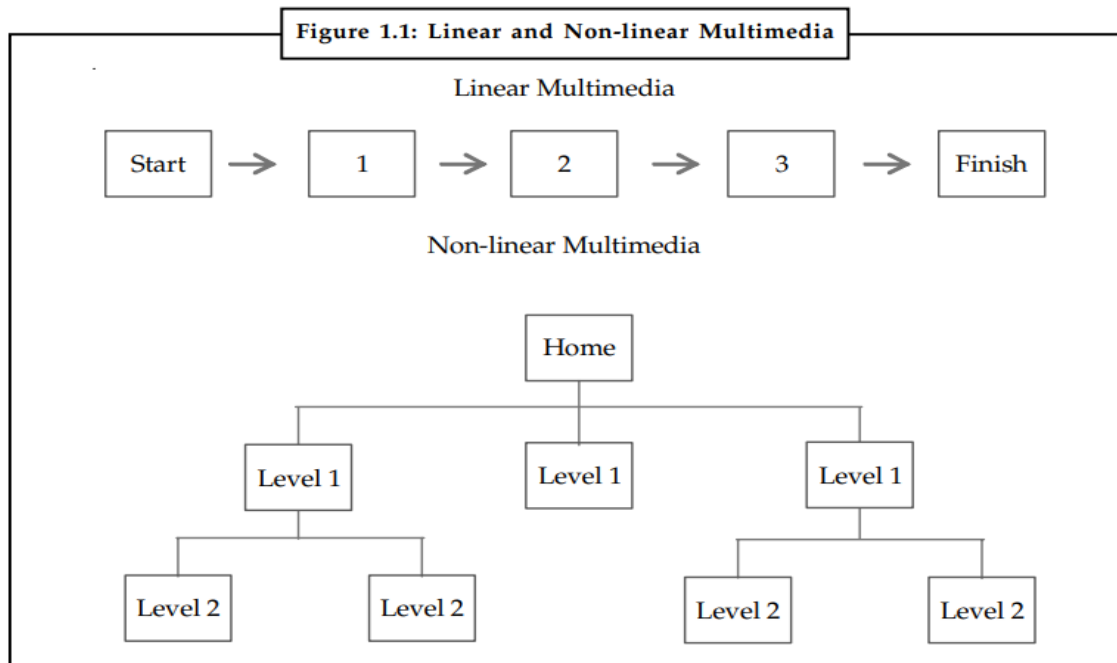
- MP4.
- MOV.
- WMV.
- AVI.
- AVCHD.
- FLV, F4V, and SWF.
- MKV.
- WEBM or HTML5.

2.1 Categories of Multimedia

Based on how multimedia programs are used, multimedia can be divided into two forms – **linear multimedia and non-linear multimedia**.

In linear multimedia, information is read or viewed in a continuous sequence. Usually, these presentations begin at a predetermined starting point and end at a predetermined end point. They can be automated so that each screen comes after a fixed time interval. Example: Power point presentation is one of the most common examples of linear multimedia.

On the other hand, **non-linear multimedia information** is not presented in sequential or chronological manner. Non-linear multimedia programs are usually interactive and require audience interaction.



2.2 Characteristics of Multimedia

A multimedia system has four basic characteristics:

- a) Multimedia systems must be computer controlled.
- b) Multimedia systems are integrated.
- c) The information they handle must be represented digitally.
- d) The interface to the final presentation of media is usually interactive.

➤ Computer Controlled

- Producing the content of the information e. g. by using the authoring tools, image editor, sound, and video editor.
- Storing the information: providing large and shared capacity for multimedia information.
- Transmitting the information: through the network.

- Presenting the information to the end user: make direct use of computer peripheral such as display device (monitor) or sound generator (speaker).
- **Integrated**
- All multimedia components (audio, video, text, graphics) used in the system must be somehow integrated.
 - Every device such as microphone and camera is connected to and controlled by a single computer
 - A single type of digital storage is used for all media type.
 - Video sequences are shown on computer screen instead of TV monitor.

➤ **Interactivity**

Level 1: Interactivity strictly on information delivery. Users select the time at which the presentation starts, the order, the speed, and the form of the presentation itself.

Level 2: Users can modify or enrich the content of the information, and this modification is recorded.

Level 3: Actual processing of users input, and the computer generate genuine result based on the users' input.

➤ **Digitally Represented**

Digitization: process involved in transforming an analog signal to digital signal

➤ **Authoring Tools**

Example:

- Macromedia Authorware
- Macromedia Director
- Macromedia Flash
- Microsoft Power Point

