Lapai Journal of Economics; Volume 4, No.2; 2020
Print ISSN: 2659-028X
Online ISSN: 2659-0271
Published by Department of Economics, IBB University Lapai, Niger State, Nigeria

Science, Technology and Innovation: The Importance of Multi-Media in Academic Libraries

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Abstract
In the present academic and special library setting the educational videos, instructional visual aids and audio learning resources form a significant collection. Time is fast catching up the world over that the traditional forms of collection development techniques and collection maintenance strategies need replacements with the upcoming trends in the profession. Connoting the essence of libraries as a collection of sources of information and similar resources, selected by experts and made accessible to a defined community for reference or borrowing, often in a quiet environment conducive for study. The study discuss briefly main elements of multi-media, types, methods of presentation, types of software, access methods and its advantages in academic libraries.

Keywords: Academic Library, Multimedia, Software, Learning, Video Resources
JEL Classification: O14

1. Introduction

Libraries have always made information available to users. From the earliest days, they housed and facilitated access to information through the selection, aggregation, organization, service, and ongoing care of the materials as a shared good and in supporting the academic, university, or college community and curriculum. Information contained in these materials could be in text, video, pictures, images or merged together in the same device. This leads us to the concept of multi-media as that device that uses a combination of different content forms such as text, audio, images, animation, video and interactive content.

According to Chambers 21st Century Dictionary, multimedia involves the use of a combination of different media especially in entertainment and education such as TV, radio, slides, In-fi, and visual arts. Typically, this is the field concerned with the computer controlled integration of text, graphics, drawings, still and moving images (video), animation, audio and other media where every type of information can be

represented, stored, transmitted and processed digitally. It could also be referred to as; a computer system that is able to present and manipulate data in a variety of forms e.g. text, graphics, and sound often simultaneously. Information are imbibed in various formats that is needed to be processed, organized and made available for easy accessibility for the users Information could be either in text, pictures, images, video etc. or merged as one in the same devise.

The growing importance of documents represented in nontraditional media is challenging the traditional notion of a library collection. These new technologies offer students, teachers and researchers access to materials as never before. Multimedia can deliver large amounts of information in ways that make it manageable, approachable, and useful. And by making it possible to access illustrations and photographs, sound and video, as well as large amounts of text, interactive multimedia programmes. Present learning information to teachers, students, and scholars in newly engaging and meaningful ways. The integration of multimedia programmes into libraries and classrooms promise not only to change the kinds of information that is available for learning, but also way learning takes place.

Multimedia is a content that uses a combination of different content forms such as text, audio, images, animation, video and interactive content. This differs from the media that use only rudimentary computer displays such as text only or traditional forms of printed or hand provided materials. Kate (2011) opines that, electronic information and multimedia in general, is about to become a vital part of our cultural heritage. Libraries from time immemorial have ensured a democratic independent and free access to the knowledge and intellectual value represented by conventional books. To some extent libraries should be at all times able to make information available to the users of the library in simple and clear way.

According to Bhatt (2018), many big libraries including the Library of Congress (LC), British Library, OCLC, etc, are building their collections in multimedia form. Apart from multimedia collection development in 1990, LC began the American Memory Project, aided by Annenberg Fund; the David and Lucile Packard Foundation and others for preparing multimedia CDs. This covered several kinds of information including country's historical books, pamphlets, photographs, folk songs, movies, genealogical works, etc. There are a few surveys in the literature that are focused on the usage of multimedia technology in public libraries, academic libraries and special libraries. These studies primarily cover the use of multimedia CD-ROMs in libraries and also the use of World Wide Web and internet. Singh (2016) opined that technological development have given rise to the new ideas relating to collection, processing and dissemination of information. These developments and ideas include use of multi-media technology, the study went further to say that, multimedia technology is a combination of several forms. The form of information could be text, audio, visual, graphics, image audio or video etc. With advancement in information

technology, multi- media systems plays a more important role and had an impact on our lives. From home entertainment, through training, education, medicine and health services and financial services to business communication multi- media plays an important role.

In common usage, the term multi- media refers to an electronically delivered combination of media including video, still images, audio, text in such a way that can be accessed interactively. Much of the content on web today falls within this definition as understood by millions. Multi- media is a media that uses multiple forms of information content and information processing (e.g. text, audio, graphics, animation and video, interactively to inform or entertain the user (audience.).

2. Main elements of multi-media

Basically multi-media are constituted by seven elements. These elements include: text, data, graphics, photographic images, animation, audio and Video. Referring to text, these are the information about an object event such as notes, captions, subtitles, contents, dictionaries, and help facilities. The first element of multi-media consists of tables, charts, graphs, spreadsheets, statistics and raw data from the major data in multi-media. In the same vein, both traditional and computer generated such as drawings, prints, maps etc are the graphics in multi- media environment, while photographic images include negatives, slides, and prints among others. Computer generated videos are examples of animations. Music digitized and speeches from cassettes, tapes, CDs etc are audio element of multi-media, and finally, video include anything converted from analogue could it be film or entirely created within a computer.

A multi- media system records, processes, stores and delivers all types of information in binary code the same way as a computer does. This is entirely different from the traditional analogue technology of radio. TV, A-V tapes gramophone records or the combination of digital audio and analogue video in interactive video class. For a better performance especially in playing digital audio and video, a multi-media system will have a powerful PC with high-end graphics processors, a soundcard, CD drive and multi-media extension and functional drivers.

Types of Multimedia and their Patens of Presentation

There are three mayor types of multimedia in use. These are online, offline and hybrid multimedia. Online Multimedia is a product that needs to communicate with distant resources and sometimes distant users. Examples include web sites, mobile services among others. Through this forum, communication is made fast and is easily passed to the targeted audience, thereby making service delivery more efficient. In the case of offline multimedia which is a self-contained product and which does not communicate with anything outside its immediate environment. This simple means that, communication is contained within the environment. Examples of offline multimedia include CD, DVD, and Multimedia Kiosk etc.; while hybrid multimedia contains elements of both on-and offline products e.g Computer games.

Patens of multimedia presentation follow two major dimensions. They are linear and user active. The two dimensions have their peculiarities. With linear multimedia, users have little access or control over the presentation. What happens is for the users to sit and watch as the presentation goes. Users can only watch and comprehend the information therein. Again in linear multimedia, presentation could go on playing from the start to end or even loops over continuously to give or present the information to the user(s).A movie is a typical common example of a linear multimedia presentation.

In the case of user active multimedia presentation, users could go on to dictate the flow of information presentation. That is to say, users have the ability to move around or follow different path through the information presentation. It has advantage of presenting a complex domain of information. Its biggest disadvantage is users might get lost in the massive information highway.

3. Multimedia Software and Access Methods

Software is what makes the computer worthwhile. Eventually, there are two types of software and they are system software and application software. While system software helps the computer perform essential operating tasks and enables the application software to run, application software on the other hand enables one to perform specific tasks—solve problems, perform work, or entertain one self. Hence multimedia software is the software with which one can easily combine texts, videos, audio and image files. They have the ability of enhancing texts of any type the user want to use. With these software one can create, arrange, mix and record different types of music and videos. It could also be connected to computer with some musical instruments to enhance its performance. The most patronized multimedia software includes: VLC player, moviemaker, Windows Media Player, Adobe Photoshop, Media Monkey and Inks cape Windows.

VLC media player is a free and open –source portable cross – platform media player software and streaming media player developed by the Video LAN project and most available for desktop operating systems and mobile platforms, e.g Android, IOS, IPadOS etc. Moviemaker however, is discontinued video editing software created by Microsoft it can be used in editing and publishing audio tracks. While Windows Media player (WMP) is a media player and media library application used for playing audio, video and viewing images on personal computers running the Microsoft Windows operating system among others. Adobe Photoshop on the other hand is sophiscated tools that designers, graphic artists, photographers and web developers use. It is equally used for image compositions, website mockups and adding effects. But Media Monkey is a digital player and media library application used for organizing and playing audio on Microsoft Windows operating systems. The software was developed by Ventis Media Inc. and Inks cape is graphic software which runs on Windows, MacOS X and GNU/Linux. It is used by designers and hobbyists for creating wide variety of graphics such as illustrations, icons, logos, diagrams, maps and web graphics.

4. Multimedia in Libraries

Multimedia helps users in providing information from different media on one platform and also saves on space, money, maintenance, operational inconveniences among others. Multimedia has a lot of advantages in the library, for it enhances its operations in the process of service delivery. Among the major advantages of multimedia in libraries are: It is user friendly. That is to say, it is interesting and easy to use over the existing form such as print, microforms, online, etc.; it can create forum for meeting various types of information preferences of the users, such as scholarly, scientific, vocational, artistic, and recreational among others; it can help in satisfying different information needs such as reference, enrichment, entertainment, and leisure among others.

Information can also be accessed by remote users on a network; it can also help in overcoming the barriers of boundaries, proximity and physical capacity of a library to accommodate users; it control and interactivity helps the users and provides the benefits of books to human beings; it increases learning effectiveness. Offers significant potentials in improving personal, communications, education and training efforts; it reduces training costs, and educationally. It provide students with opportunities to represent and express their prior knowledge; allow students to function as designers, using tools for analyzing the world, accessing and interpreting information, organizing their personal knowledge and representing what they know to others; it engages students and provide valuable learning opportunities and Create personally meaningful learning opportunities. From afore mentioned benefits one can therefore conclude that multimedia is of much importance in the library as one of library information data base that enhances learning.

5. Conclusion

In this paper we arrived at the conclusion that multimedia is strong information medium. This is to say being digitized information medium; it plays a major role in explaining and interpreting information in virtually all forms with ease. Data could be transformed in text, video, pictures or even in animation as the case may be. This makes it possible for the readers to access, understand, and comprehend the message contained therein. It enhances interactivity in training session thereby making the users livelier in the course of lecturing and training. Predominantly multimedia collection of a library comprises video resources (educative as well as entertainments), audio recordings, computer-based training materials (CBTs), Web-Based Training materials (WBTs), illustrations, photographs etc. Depending on the nature of parent institutions goals, academic focus, research thrust its resource allocations and financial capabilities, their collection strength may considerably vary.

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