

## Augmenting Computer Performance to Achieve the Best Functions of Digital Library

B. Shanthi<sup>1</sup>, S. Thanuskodi<sup>2</sup>

<sup>1</sup>Ph.D. Scholar <sup>2</sup>Professor & Head, Department of Library and Information Science, Alagappa University, Karaikudi, Tamil Nadu 630003, India.

### Abstract

Information Explosion has revolutionised the traditional Libraries to Digital Library. Requirement for digital information is escalating. This paper illustrates the concept of Digital Library, lists the resources needed to setup digital Library and the advantages of Digital Library. It also describes how to improve computer performance to get the best benefits of the digital library.

**Keywords:** Library; Digital Library; Computer Performance; Operating System.

### Introduction

In the present century Digital Libraries are becoming more popular. Requirement and demands for Digital information has increased tremendously as there is fast advancement in Information Technology. Library functions have been revolutionised due to this. Printed materials are expensive which is still available in traditional libraries. Now a days to satisfy the library user needs dynamic electronic resources are provided instantly through digital libraries in addition to the printed materials. Digital Library provides instant access to digitized information such as text, Audio, video and multimedia. The main idea of the digital library is to link the past and present and save the future by preserving all the records.

### Address for correspondence

**S. Thanuskodi**  
Professor & Head,  
Department of Library & Information Science,  
Alagappa University, Karaikudi, Tamil Nadu 630003, India.  
E-mail: [thanuskodi\\_s@yahoo.com](mailto:thanuskodi_s@yahoo.com)

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### Concept of Digital Library

According to William Y Arms (2000), "A digital library is a collection of documents in organized electronic form on computers and available on the internet." The information is organized, archived and made available to the users universally. This might be small or big. There is a digital library wherever there is a computer and network. User will be able to access books, journals, papers, magazine articles, image sound and video files. To transform the traditional library to Digital library voluminous amount of massive digitization has to be made. Digital library will replace the printed journals by electronic journals. The universities and organisations can create their own digital content and make it available to all.

### Characteristics and Functions of Digital Library

The scholars search for the information required through online easily in no time. Now a days scholars and professionals are using internet and library web sites extensively for the information they are

searching. Digital Library will contain resources useful for the users for teaching and learning. Based on digital technologies the electronic information can be accessed by all (whether new user or experienced user) and maintained by professionals. Search and Retrieval can be done in an user friendly manner. Storage, retrieval and exchange of digital resources is done with the help of telecommunication. Navigation is possible using hyper text links. Digital libraries can be maintained by Universities, Institutions, Organisations and individuals. The digital content may be stored in the computers and will be made available to the users with the help of computer network.

#### **Resources needed for setting Digital Library**

- *Infrastructure*: Desktop Computer, Scanner, Printer, UPS and External Storage Devices. The computer should perform well for the digital library to function efficiently.
- *Digital Collection*: Text, Audio, Video, Visual, multimedia
- *Telecommunication facilities*: Telephone, Internet Connection and Modem. The internet connectivity should be uninterrupted for the digital library to function efficiently.
- Trained Human resources

Obtaining preeminent performance of the existing computer

The following guidelines should be followed to get the best performance of the computer

#### **Ensure minimum icons on Desktop**

The desktop should not be messy with too many icons; it should be clean with minimum icons. The computer resources are utilised to display the icons and the desktop is displayed whenever we log on to our PC. More resources are utilized if the icons are displayed as image files, or if the icons are customised. We can put those icons in a folder and move to some other place. System thumbnails with extensions are better than icons. If desktop is run rampantly then the battery life will not last long.

#### **Ensure minimum programs at the startup**

The system performance will be retarded if extraneous and unimportant programs are run at the startup. More number of icons on the taskbar shows the system will take more time to start. Icons

other than the speaker, network status, antivirus and firewall are unnecessary.

#### **Ensure to update the Operating system**

Operating system should be updated for the best functioning of the computer. Updating keeps the computer more secure and reliable as well as compatible with devices and applications. The newer Operating system will be user friendly with aesthetic factors. Time will be saved as it will be very easy to use. Programs will run smoothly and our data and software will run securely and smoothly. Software patches can be obtained for newer Operating system and it will not be available for older versions. For the effective functioning of the antivirus the Operating system should be updated. The latest version will always be more stable.

#### **Ensure to load and update the Antivirus**

Computer virus is a software program that attacks computer and network systems. It will damage the system and at times it will hack the data and system information which are saved in it. It can spread from one computer system to another and cause interferences with computer operations. Antivirus is a software program which will prevent the computer from the virus, protect the data and provide better performance. Antivirus has to be loaded to prevent the computer from Virus. Consistently the antivirus has to be updated for proper functioning. Downloading and installing the latest security updates is essential to detect the current virus and to remove from the computer.

#### **Ensure that unnecessary toolbars are closed**

System performance will be affected when multiple toolbars are used on the same browser and there is a chance of computer virus to attack. Unnecessary toolbars have to be removed completely with the help of toolbar remover as some files will be left behind the screen if we uninstall through normal methods. A browser toolbar resides within a browser's window. Browser plugins must be updated for better performance

#### **Eliminate unnecessary browser tabs**

Simultaneously do not open more than 12 browser tabs, We cannot work at the same time

and the Browser will function slowly. When Many browser tabs are open we can view only the favorite icons (favicons) and not even the page titles. We will waste more time in extracting vague/unnecessary pages.

### **Eliminate Screensavers**

Screen savers with bright colours or 3D effect will slow down the system performance - The processor heats up which in turn decreases the life of the processor and the performance of the system slows down. Due to the screensavers the plasma monitors get permanent discoloration of areas on the monitor i.e. screen burn. Screen savers and animations can be disabled to improve the system performance

### **Eliminate Dust**

Dust will not allow the air to impede into the system. Due to this the processor will be heated and the performance will go down. The computer should be free from dust and has to be cleaned. Cleaning has to be done after a lapse of half an hour of switching off the system and removing the cables.

### **Uninstall Programs and applications which are used occasionally**

Uninstall the programs that have become obsolete or if it is used occasionally. Uninstall the rarely used programs in a proper way such that they do not reside at the backend.

### **Delete Temporary Internet Files and Cookies**

Web services store Cookies in our computer hard disk by which our user ID, password, internet histories are recorded when a website is browsed. Clearing Cookies will free hard disk space and not reveal our private information & the browsing history.

### **Restart the Computer at least once a day**

An operating system which is run for a long time tends to accumulate all sorts of unwanted code - temporary files, disk caches, memory leaks, etc. Daily shut down improves the computer performance by clearing out the memory. Shutting down the computer when not in use saves energy.

### **Conclusion**

The main advantage of Digital library is multiple access to large amount of information globally, round the clock and integrate other digital libraries. All these are possible if the computer performs well and the internet connectivity is uninterrupted. All other advantages of the digital library can be obtained up to the optimal level if all the guidelines suggested in this paper are ensured. Students, scholars and other library users are provided with successful learning resources impetuously. All the users will be benefitted by the digital library if the computer performance is boosted.

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