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DIGITAL LIBRARIES: NEEDS,TECHNOLOGY AND BENEFITS

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Abstract:

In modern era the communication and information technology are changing very fast and huge impact on libraries.This impact is seen in the form of the digital library,the electronic library,the virtual library,the hybrid library,etc.In all these the information is stored in digital formats and access over a network.Many benefits of libraries are well known.

KEYWORDS: Digital Libraries, Technology and Benefits, communication and information technology.

INTRODUCTION:

In the recent past, the information technology revolution has changed the face of many institutions.In developing country the IT has changed the rapid growth in mobile,e-mail,fax etc.In 1938 H.G.Wells dreamed of a world encyclopedia in which all human knowledge would be available everywhere. In 1945 Vannever Bush had a vosopm pf a scholar consulting any book by trapping its code on keyboard. This articles mainly focuses on benefits of digital libraries and its purpose is also the need of digital libraries and technology involvement.

DIGITAL LIBRARIES

A library is an accumulation of wellsprings of data and comparative resources,made open to a characterized network for reference or harrowing(1) It gives physical or computerized access to material, and might be a physical structure or room,or a virtual space,or both(2) A library's gathering can incorporate books, periodicals, newspapers, manuscripts, films, maps, prints, documents,microform, CDs, cassettes, video

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tapes, DVDs, Blu-beam Discs,e-books, audiobooks, databases, and different formats.Libraries go in size from a couple racks of books to a few million things. In Latin and Greek,the thought of shelf is spoken to by Bibliotheca and Bibliotheca (Greek: Bibliotheca): subordinates of these mean library in numerous cutting edge languages.e.g.French bibliotheque.

The primary libraries comprised of documents of the soonest type of composing the mud tables in cuneiform content found in Summer,some going back to 2600 BC.Private or individual libraries made up of composed books showed up in traditional Greece in the fifth century BC. In the sixth century,at the exceptionally close of the Classical period,the incredible libraries of Mediterranean world remained those of on stantinople and Alexandria.

For the Digital Library Federation in the U.S.A:

Digital libraries are organizations that provide the resources,including the specialized staff,to select,structure,offer intellectual access to,interpret,distribute,preserve the integrity of,and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities.

WHY DIGITAL LIBRARIES?

Enormous scale digitization ventures are in progress at Google,the million Book undertaking, and Internet chronicle with proceeded with enhancements in book taking care of and introduction innovations, for example, optical acknowledgment and books and advancement of elective storehouses and plans of action computerized libraries are quickly developing in fame. Similarly as libraries have wandered into sound and video accumulations, so have advanced libraries, for example, Internet Archive. Google book venture as of late got a court triumph on continuing with their book-checking venture that was ended by the Author's society. This helped open the street for libraries to work with Google to all the more likely arrive at supporters who are familiar with modernized data.

As per Larry Lamom, Director of Information Management Technology at the not-for-profit organization for National Research Initiatives(CNRI)," every one of the issues related with advanced libraries are enveloped with documenting". He proceeds to state." If in 100 years individuals can in any case read your article,we'll have understood the problem."Daniel Akst,author of the Webster Chronicle,proposes that "the eventual fate of libraries and of data is digital."Peter Lyman and Hal variation data researchers at the

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University of California,Berkeley,estimate that "the world's absolute yearly creation of print,film,optical,and attractive substance would require generally 1.5 billion gigabytes of storages."Therefore,they accept that'soon it will be innovatively workable for a normal individual to get to for all intents and purposes all recorded data."

There are such a large number of purposes behind structure up computerized libraries,such as Information explosion,budgets of the library spaceproblem,high data demand,available technologies,etc. As we know,today in spite of having very much supplied libraries and all around prepared asset centres,users of data is never met. In 1990 Alvin Toffler evaluated in his book,"power move" that in one year the United States runs out 1.3 trillion documents.According to another estimate,there are around 50,000 periodicals just identified with science and innovation.

TECHNOLOGY DEVELOPMENT

In modern day, the information technology is rapidly changing and the personal computer are getting cheaper and cheaper also available in any country.Varities of software are available to the market which are capable of manipulating and rendering information.The availiability of computers the high speed version and large storage capacity,it is feasible to digitize and store information in the form of high quality graphics,colour images,voice signals and video clips at a low cost.

DIGITIZATION HARDWARE

Today compters are very cheap.Apart from this,in the past,lack of hardware and absence of proper technology was also a hindrance in creating a digital library.In the present time, however, we have many hardware equipment's available for digitization process.some of these are mentioned below:

FLATBED SCANNER

As optical resolution has increased,the distinction between document scanners and film scanners are fading.some affordable document scanners support sufficient image density that they include adapters for the scanning of transparent materials such as film negatives. In the $100 price range and below the range of image densities is as high as4,800*9600 dots per inch(dpi) and as low as 1,200*1,200dpi.

Realize that above about 2,400dpi the human eye is challenged to discern a qualitative difference and images scanned at the highest pixel densities that the scanner can achieve produce massive files. The actual density is the useful number.Vendors will also market "interpolated"numbers.Interpolation involves statistical guessing about which pixels

to insert in order to inflate an actual scan up to a higher apparent resolution. The interpolation algorithms are not perfect and they can produce inaccurate colors.

Scanners hit depth is another attribute to consider. The previous generation of scanners employed 24 or 36 bit technology that required three passes to capture the red,green and blue color information. All of the current $100 products support 48-bit scanner depth to capture 250 trillion colors in a single pass.

If a scanner supports Optical character Recognition (OCR),then it is possible to scan a text document in such a way that it is possible to edit the document from text editor. Without OCR,every text document will be similar to a read-only PDF document,which will not open in a text editor. There are scanners without OCR,but all flatbed scanners can create PDF's and scan to e-mail. All scanners include image-editing software,but there are usually better image editors available from vendors that specialize in image-editing software.

Sheet feders-Sheet feeders are very useful in case a library is having loose leaf documents for processing.The benefits of this type of scanner is its remarkable speed and one can leave it churning through the documents unattended.However,one cannot load more than 100 pages into the feeder at one time.

DRUM SCANNERS:

ICG's model 370 provides 12,000 dpi of optical resolution for service bureau quality scanning.Drum scanners provide the ultimate in scanning quality and resolution and are widely used for commercial graphics production as wellas applications that turn photos into posters and wall-sized images.(Image courtesy of ICG North America)

Digital Camera: A digital camera is a camera that includes digital images and videos digitally and stores them for later reproduction. [1] Most cameras sold today are digital. [2] and digital cameras are incorporated into many devices ranging from PDA's and mobile phones [called camera phones] to vehicles.

Digital and film cameras sare an optical system, typically using a lens with a variable diaphragm to focus light onto an image pickup device.[3]The diaphragm and shutter admit the correct amount of light to the images,just as with film but the image pickup device is electronic rather than chemical.However,unlike film cameras,digital cameras can display images on a screen immediately after being recorded,and store and delete images from memory. Many digital cameras can also record moving videos with sound. Some digital cameras can crop and stitch pictures and perform other elementary image editing.

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DIGITIZATION SOFTWARE:

Software for digital imaging covers three main area

i)Capturing the image

ii)Processing the image

iii) Delivering the image

Initially,we will need a piece of software having interfaced with the peripheral device used for scanning such as the camera or scanner.The JPEG (Joint photographic Experts Group) and the GIF(Graphic Interchange Format) are the most popular image files delivered via the web and are ideally suited for displaying ina all brwosers.Mnay digitization projects create JPEG or GIF files format from their TIFF masters for subwequent delivery via the web.

BENEFITS:

Benefits of Computer Power:- Today computers are available which can compute at very high speed and also have large disc storage space. Computer power made feasible to digitize and store information in the form of high quality graphics, colour graphics,colour images,voice signals and video clips at a low cost. Internet,a worldwide network of thousands of networks interconnecting millions of computers,locatedworldwide,has become a most important channel for intercommunication,information exchange and information dissemination. World wide web(WWW) technology based on Hyper Text Markup Language(HTML) and emergence of advanced web browsers have provided very user-friendly interface,giving clickable access to vast amount of multimedia information stored on millions of web servers all over the world.

The digital Library shifts the library to the user.A traditional library a user must go there ,if he wishes to consult it. If a person does not have a library nearby or the timings of the library does not suit, he cannot get benefited from the library resources.

Easy way to post latest information on contrary,we can post latest information with less labour if any life is stored on a central computer in a digital format. Todaymany libraries maintain online version of directories,encyclopedias and other reference works. When revisions are want and the publisher received,they are installed on the library server.Round the clock information availiability: Materials are never borrowed by the user,nor wrongly shelved,nor stolen.Precisely we can say that in comparison to traditional library,information is much more likely to be available at the disposal of the user in the case of digital library.

CONCLUSION

Any library considering digitization of its holding will need to evaluate potential digitization projects.They will also need to assess the actual and potential user base,and consider whether their thirst to view the material will remain in digital form.The library should take precautions in not digitizing that material which might the desire to see the original.

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