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Information Technology use pattern of Non-book materials conversion and selected collection in academic information center

1Vijayanathan R, 2 Satheesh R, 3 Purushothaman.T

1Senior Librarian & Head, 2&3 Scholars,
1Department of Library and Information Science, Cauvery College of Engineering & Technology, Trichy, 639 103 (TN)
2&3Department of Computer Science, Chemistry, Sri Pushpam College of Arts and Science, Poondi,(TN)

Abstract: Academic libraries need to retain collection of age-old books, journals, etc., for longer period. Preservation of select highly useful and valuable materials on optical discs has higher benefit than merely reducing space problem. The chaff can either be consigned to remote warehouses or weeded out with other unwanted editions

Key word: IT technologies, non-book materials, conversion and collection in academic information center

I. INTRODUCTION

Preservation of shared knowledge and information, ever since the dawn of human history, has made basically few shifts as far as storage media are concerned. The earliest records of knowledge have been found on rocks and clay tablets, followed by papyrus rolls animals hides, strips of wood, etc., and finally, on paper, believed to have been first invented in china. Except for the paper, each previous medium must have been difficult to handle and write on with calligraphic effect, therefore, inconvenient and inadequate to record the variety of knowledge produced in the age it belonged paper, especially after the invention of printing press, has been the most convenient medium to store and spread all kinds of knowledge and information. However, reckoning the size of the information produced in the later half of the 20th century, and the scale at which it is exploding now, paper also has perhaps cultivar its archival use any longer. The greatest problem with paper media is that of storage and access.

NEW STORAGE MEDIA

The end of the twentieth century has seen the invention of advanced and new storage media technologies such as: magnetic tape cartridges, floppy disks, computer hard discs, and finally, CD-Rom, DVD-ROM and BLUE-RAY discs. Microforms apparently do not seem to figure any more as storage media. While magnetic tapes permit only sequential access, floppy disks have only 25 to 50 GB storage capacities. Large hard drives may be good for current online bibliographical database. Therefore, removable CD/DVD-ROM and BLUE RAY discs, logical progressions from floppy disks, maybe the preferred choice for use of document preservation in academics libraries needing to retain, economically, some of their age old, brattling and pest-eaten but still valuable collection of books, journals and other reading materials.

OPTICAL DISC DENSITIES

Each CD-ROM disc is capable of storing about 650 MB of information, equivalent to contents of 3, 25,000 pages of text (at the rate of 500 pages per MB). Therefore, CD-ROM and BLUE-RAY discs may be good to preserve contents of one or more individual books. Hoverer, to preserve the contents of large back volumes of journals, likechemische berichte which is brought out since the year 1880 till date, what could be the media either large , costly hard drives, or economical DVD-ROM and BLUE RAY discs. Each DVD-ROM and BLUE RAY disc for text use comes with storage density from 4.7GB to 50GB, and much more one GB can store as many as 500,000 text pages, therefore a single BLUE RAY disc is enough to preserve the contents of one or

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more journals in libraries. Unit lately BLUE RAY DISC (digital video) discs have been in use only for audio- visual data, such as motion pictures, etc., but the same , now described as digital versatile discs can store large text and graphics as well.

WHERE TO BEGIN IN DATA CONVERSION

Libraries may begin data conversion first with PhD theses, internal publications and reports, etc. Later they may go for back volumes of serials, books, etc. Which do not come under copyright? At the end, selected copyrighted material may be taken up for conversion depending on priority. Whenever necessary, it should be done only after taking proper permission from the concerned publishers.

Fortunately, copyright laws in most countries are liberal to libraries in respect of making "fair use" copies – digital or otherwise – which includes archiving lost, stolen, damaged or deteriorating works. In particular, Indian copyright laws [5], too, though dealing with only print works, are equally unambiguous in this respect. Therefore, generally, libraries may not face any legal hurdles in proceeding with the suggested data conversions.

DATABASES ON WEB OR ON OPTICAL DISCS

Before starting out, it needs to be checked out, whether some of the books to be preserved on optical discs are already available free on the internet for full – text access. Many of them are religious texts, classics in humilities, social sciences, science and engineering, etc. Which are, mostly out – of – copyright or are "Public domain" works (Generally, all works published before December 31, 1922 are in public domain). For instance, the website www.acadamicinfo.net, provides a good deal of them. New Zealand Digital Library is another non – commercial portal providing full – text reports and other literature for free. Users may find out many more sites for free digital documents. Each such title may be left out of the "Project paper – to - CD/DVD conversions.

Secondly, libraries should figure out whether it is more expensive to organize a book or journal on CD/DVD and BLUE-RAY discs with efficient access mechanism than to purchase the same from the market, as many publishers have already brought out optical disc editions of their rare an archival publications for sale worldwide. They are also making CD/DVD and BLUE-RAY discs editions of most of their current publications. In the author's opinion the latter must be more economical.

Besides, many dictionaries, encyclopedias, directories, atlases and a variety of other reference tools are available, either on the web for free access or on optical discs for instant acquisition into a library's digital collection. For free web editions, one many carry out a directory search on www.google.com, www.yahoo.com, www.dictionary.com etc, and publishers catalogues for optical disc editions. Libraries need to be very careful and selective in purchasing optical disc edition, and prefer them to print editions for the attached tangible advantages.

ADVANTAGES OF CD, DVD/ BLUE RAYDISC DATABASE HOLDING

A major advantages in that access to a CD or DVD and BLUE-RAY discs database in fast, accurate and through. A proper search by a researcher may get the information needed in seconds. In contrast, traditional print services may take months for the same task, with much of information left out. Libraries cannot afford to continue with the rather slow manual information services in the fast paced environment of today. The present and the future belong of computer savvy professional users needing to stay on in the mainstream of their pursuits. Or, else they're bound to fall behind their peers elsewhere, particularly in developing countries like china, Korea, etc.

Another advantage of CD/DVD& BLUE-RAY discs database holdings is frequency of access. With CD/DVD & BLUE-RAY discs databases permanently mounted on jukeboxes and/or DVD – RAM towers, users could access them with greater freedom. The same is not possible with internet editions. Whether annual subscription or per – connect – hour tariff foe access is paid, For instance, if the library is using DIALOG or BRS resources, users are under tremendous pressure during connect time. Since the library has to pay for every extra minute or second wasted.

On the other hand online databases have certain limitations, Firstly, not all journals or journal volumes are available on the Net. Secondly, the library has to subscribe to print or online editions to print or online editions to obtain access license. Thirdly, web journals permit only limited concurrent access. For instance, IEEE explores permits only four concurrent users at a time of additional user password. Downloads and printouts cost extra. And, fourthly, if the library drops subscription of journal, access permission to all its online editions is also closed, leaving users high and dry.

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Some academic libraries currently lack building space. Paper – to – CD/DVD – ROM& BLUE-RAY discs conversion project can reduce this immediate and compelling problem. The chaff can be consigned to remote warehouses or weeded out with other unwanted editions, to reclaim precious space for reading tables and fresh holdings. More than space saving, it is what users may gain in terms of information in real time that is important.

DISADVANTAGES OF OPTICAL DISC

There are some disadvantages with commercial CD/DVD –ROM & BLUE-RAY discs databases. Firstly, they are not updated timely, while some web journals or indexing services are available online even before their print editions rollout of the press. For Example, engineering index on disc (COMPENDEX*PLUS) is updated quarterly and dissertation abstracts on Disc (DAO), only once in a year.

Secondly, if not acquired from a single producer, CD/DVD – ROM& BLUE-RAY discs databases require skills in using different search engines. Making menu – driven index searching at command prompt, may be easy to use in each system. But, users must make command or Boolean Searches, to get at exact or less abstracts hits. Sometimes user have been found keyboarding DIALOG syntax instead of SPIRS one to search in to MathSci Disc or PsycLIT from silver Platter, and vice versa. Both the search engines are so dissimilar in constructs. Again, generally users keyboards at the command prompt. They are flummoxed to discover that one access engine parses the search statement with OR operator between words, and the other with AND operator. The former results in too many hits, and the latter, in too few. Therefore, all new users require basic education in the techniques of bibliographic database searching. Fourthly, it adequate jukeboxes are not provided for permanent mounting of optical databases, it is a great hassle for users to switch from one disc to another for either a different file or part of the same file. By comparison, on online services like Dialogs the process is just a click away.

Yet another disadvantage with DVDs is, like CDs, they are vulnerable to damage by dust, finger prints and scratches. Therefore, they need very careful handling, Libraries will have to make backup copy of each CD or DVD disc to be kept in safe custody, so fresh copies can be mode.

COST FACTORS INVOLVED

The cost of the "Project paper – to – CD /DVD& BLUE-RAY discs conversion" will cover the development and maintenance of CD/DVD – ROM& BLUE-RAY discs database collection. Major items will include cost of commercial CD/DVD& BLUE-RAY discs databases, costs of computer hardware and software, cost of jukeboxes or CD/DVD towards and CD/DVD & BLUE-RAY discs writers, cost of ergonomic furniture and appropriate physical environmental to conveniently locate and optical discs. Writable blank CD and DVD& BLUE-RAY discs, data conversion cost including cost of training staff to design scheme, handle metadata, write retrieval programs and make data entries, either by keyboarding or through optical scanners etc., and cost of making backup copy of each CD/DVDs & BLUE-RAY discs etc. Lastly, Cost of user education programs on continuing basis too should be included.

The project, through initially expensive, may pay off immensely in the long run, Incidentally, the life – span of a recorded CD or DVD & BLUE-RAY discs is believed to be about thirty years.

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Author Biography



Vijayanathan.R. received his Master of philosophy Library and Information Science from Annamalai University in 1999 Also he obtained his post-graduate degree in Master of Economics in Bharathidasan University in 1996.He is working as a Sr. Librarian, Department of library and Information Science in Cauvery College of Engineering and technology, Trichy from 2009.

He has published 7 research papers in National and International journals. His areas of interested are networking; Cloud computing, IC Technologies, Environmental study, Library Automation, Webometric study, Scientometric study, Bibliometric analysis, and citation study.

Co -author Biography:



Satheesh R received the B.Sc., computer science and perusal (2014) M.C.A., degree in Master of Computer Application, Department of Computer Science from A Veeriya Vandayar Memorial Sri Pushpam College of Arts and Science (Autonomous) , Poondi ,Thanjavur in (Tamilnadu) India,

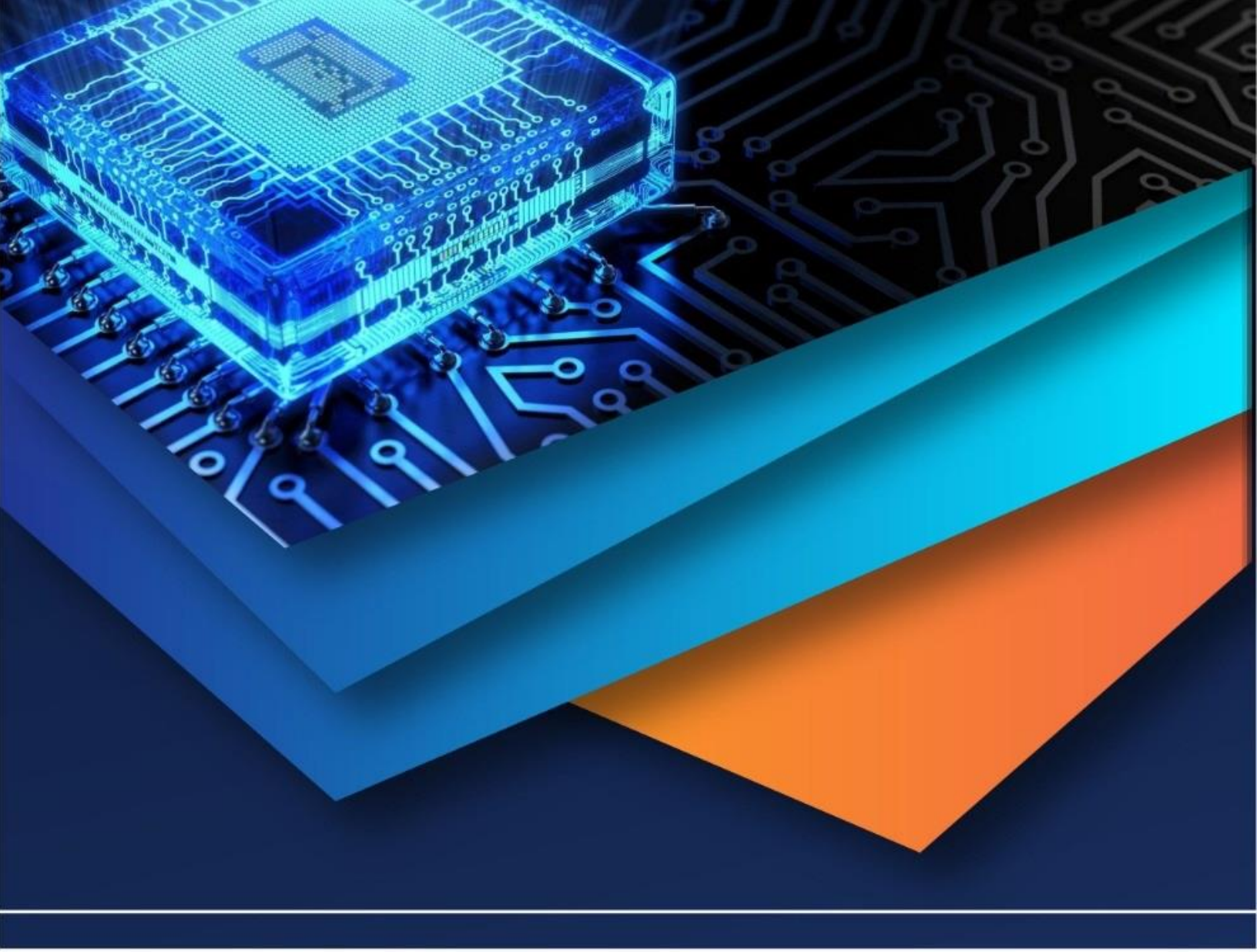
His research interests areas of Computing, Database, Data mining, Security and privacy in Cloud computing and artificial intelligence.



Purushothaman.T received M.Sc., Chemistry from A Veeriya Vandayar Memorial Sri Pushpam College of Arts and Science (Autonomous), Poondi in 2013, Thanjavur . Also he obtained his post-graduate degree in M.Ed ., Master of Education 2014, Department of Education, Vengateshware College, Pudukkottai in (Tamilnadu) India.

His interest's areas of Organic chemistry, Inorganic chemistry, Biochemistry, Teaching Aids, Teaching Methodology and survey analysis.

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