

CD-ROM BASED DATABASE SERVICES AT INFLIBNET PROGRAMME : A PROPOSAL FOR SOCIAL SCIENCE FIELD

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ABSTRACT

This paper briefly discusses the CD-ROM history, hardware and software part of it. Looking at the scope, it reveals wide variety of CD databases available all over the world in Social Sciences. By highlighting the necessity, urgent need, problems and prospects of researchers, academicians and students, it proposed on INFLIBNET to start such services by procuring minimum number CD's covering maximum subject concepts in order to cater the needs of Social Science users.

0. INTRODUCTION

Availability of precise and timely information is important for the benefit and progress of an individual or an organisation. But information is growing in an exponential rate and the amount of new information is bewildering the users. Obviously the challenge was to make this vast and latest information available to the researchers, academic communities and the other kind of users. Consequently the idea of creating large databases on specific materials was implemented and for efficient use of these databases started. CD-ROM (Compact Disc Read Only Memory) is accepted as the easiest method which once stored, can be used many times globally.

CD-ROM is a significant new technology which enables millions of bytes of data to be stored on compact disc. CD-ROM provides numerous benefits compared with other forms of information storage and retrieval medias.

1. CD-ROM's BRIEF HISTORY

Read only optical media, as their name implies all the end user receives is a replicated read only disc, that he plays in a player in order to read the data, text, or video information contained in the disc.

The first read only optical disc to become available commercially was the 12 inch optical video disc in 1978, followed by the 8 inch optical video disc and the 4.72 inch (12cm) compact audio disc in

1982, hybrid 12 inch videodisc systems in 1984, Compact disc have showed in 1980 and launched commercially in 1983, 4.72 inch CD-ROM in 1985, 12 inch Laser version ROM in 1986, the 4.72 inch CD-video in 1987.

When CD-ROM comes in market it centered around getting used to having so much textual data, and next focused on retrieving and displaying the data. Further attempted to combine text with images and audio. Future of CD-ROM will see a constant evolution of changes.

2. CD-ROM: HARDWARE AND SOFTWARE

CD-ROM is Compact Disc Read Only Memory. CD-ROM disc are circular, 12 mm diameter objects made from bullet proof polycarbonate with a shiny underlayer that stores digital information. Only one side of the disc is used for data storage.

Physical Characteristics

- Diameter 12 cm
- Diameter of the Spindle hole 1.5 cm
- Thickness 0.12cm
- Density 6299.21 turn/cm (approx)
- Total length of tracks 4.828 Kilometers

CD-ROM, are made of polycarbonate disc can store upto 660 megabytes of information, this approximately 2,70,000 pages of A4 size paper text. CD-ROM drivers are computer peripherals and

can be attached to an installed base of host computer or supplied as part. There are two types of interfaces commonly used with IBM PC The de facto IBM PC bus interface and SCSI (Small Computer System Interface) standard I/O bus interface

Software includes four areas, first, host computer's operating system, second, file creation program used to structure the files and build directory on CD-ROM, third is device drivers, that act as a link between the file server software and the CD-ROM controller, lastly the application software.

3. SCOPE OF THE SERVICES

At present, UGC has undertaken the work of serving the information seekers of different communities in different regions. It has started National Centre for Science Information at IISc campus, Bangalore, Social Science Centre at M S University, Baroda and Humanity Centre at SNDT Women's University Bombay.

All these centres engaged in their own activities at their destinations. Due to the inadequate financial assistance, manpower and resources no centre except NCSI, Bangalore for science and technology is in a position to start such CD-ROM database based services till the date. So it is felt necessary that gap must be filled by starting services in the field of Social Sciences. INFLIBNET being a UGC centre in the field of Library & Information Science, has to consider this field to serve users along with the co-operation of Social Science Centre, at M S University Baroda.

Social Science covers large subject areas and concepts and on the other side, the wide varieties of CD databases available in market, to cover all subject area by subscribing all CD's is impossible task and wastage of resources also. So, looking at the exact need and subjects by avoiding unnecessary duplication or overlapping of resources it is proposed on INFLIBNET to procure, minimum number of CD's to cover maximum subject areas in order to cater the needs of Social Science users.

4. NEED FOR CD DATABASE BASED SERVICES

The size of Social Science community is increasing at a faster rate, resulting in the growth of volume of Social Science knowledge and information. Any information by itself has no value, its value comes from its communication and use, so there should be easy access to information that already exists.

- Social Science field of activities are hindered by the non availability of information. Hence no such remarkable gain we will be able get out of society

with research.

- Due to unawareness of field of activities recent developments and further research of other countries, our researchers in this field are seriously handicapped.

- No single Information Service at National level is available in Social Science field of activity to the researchers in the universities for providing latest information through CD database based services, and on the other side plenty of services, and information products available in these fields.

- Even though many governmental and non-governmental organization established to take care of social science activities, but no organisation has started such services at the University environment level till the data due to lack of sources, skilled manpower, as well as resources.

- Being a National centre with the aim to automate all Indian Universities and R & D Organisations, INFLIBNET should consider this area for serving essential needs of information seekers of social sciences.

5. TYPES OF CD DATABASES

When CD-ROM comes to market, publishers utilized this media for distribution of textual information. Further developments in this media leads to utilise it for combination of text, audio along with video.

Present scenario of CD-ROM publication in textual information reveals, there are wide range of products available in almost all fields. A brief description of electronic databases are :

A. Bibliographic Databases

1. **CA-SEARCH (Chemistry)** : References of more than million chemistry publications dating from 1967. Produced by Chemical Abstracts Service, USA. Equivalent of the printed Chemical Abstract.

2. **COMPENDEX Plus (Engineering)** : machine readable version of 'Engineering index'. About 3 million bibliographic records, since 1970. Producer : Engineering Information Inc., USA.

3. **ERIC (Education Resource Information Centre)**
Publisher : Silver Platter
Period : 1982 - Present

4. **LISA (Library and Information Science Abstracts)**
Publisher : Bowker Plus
Period : 1969 - Present

5. ECONOLIT (Economics)

Publisher : Silver Platter

Period : 1969 - Present

6. SOCIAL SCIENCE CITATION INDEX - With Abstracts

Publisher : Institute for Scientific Information

Period : 1995 - 1996

B. Full text and Image Databases

1. Full text Databases :

The examples for full text databases includes S & T journals like 'Science' 'Electronic Design', 'Byte' etc. Handbooks and encyclopedias like 'Kirk-Othmer Encyclopaedia of Chemical Technology' and 'Beilstein handbook' and the news databases like NEXIS, Financial Times, etc. All these include only textual information, without any graphics like diagrams, charts etc.

2. Image Database :

Contains complete images of print publications, captured using optical scanning. The examples are ADONIS CD covers over 500 full text journals in the field of medical sciences. Another example is of Harvard Business Review : Producer John Willey & Sons Inc, USA contains over two thousand five hundred records.

C. Directory Databases

Examples include 'Research Centres and Services Directory', by Gale Research Inc., providing detailed information on over 26,000 research organisations worldwide; 'Computer Readable Databases', by Gale Research Inc., providing description of more than 6,000 publicly available databases; 'D & B Dun's Market Identifiers', by Dun's Marketing Services, providing detailed information on business establishments in USA, Europe, Africa, Asia and other countries.

D. Scientific Numeric Databases

Examples include 1. CSD - Cambridge Crystallographic Databases, produced by University Chemical Laboratory, Cambridge, UK. CSD contains crystallographic, chemical and bibliographic information for organic solids and includes unit cell data, atomic coordinates, chemical connectivity, and reference information; 2. Metals Datafile, produced by Institute of Metals, UK. Includes mechanical properties like crack propagation, elongation, fatigue life, etc. and physical properties like density, electrical resistivity, etc. of metals and alloys; 3. GENBANK, produced

by Intelligenetics Inc., USA. Contains information on nucleotide, DNA and amino acid sequences; 4. Hybridoma Data Bank, produced by American Type-Culture Collections, USA. Contains information on hybridomas and monoclonal bodies.

6. PROPOSAL TO SUBSCRIBE CD DATABASES

It is proposed INFLIBNET to subscribe the following CD databases in the field of Social Sciences.

1. ERIC (Education Resource Information Centre)

Publisher : Silver Platter

Period : 1982 - Present

Contains : Covers a broad spectrum of educational subjects industry adult & vocational education, counselling, educational management, reading, communications skills. Bibliographic references and abstracts from 750 educational Journals & thousands of research reports.

2. LISA (Library and Information Science Abstracts)

Publisher : Bowker Plus

Period : 1969 - Present

Contains: Providing comprehensive coverage of international materials in the field of library and information science about 2 lakhs of record.

3. ECONOLIT (Economics)

Publisher : Silver Platter

Period: 1969 - Present

Contains : Covers subject areas in economics, human conditions, finance and manufacturing etc.

4. SOCIOFILE (Sociological Abstracts)

Publisher : Silver Platter

Period : 1969 - Present

Contains : Covers the worlds literature in sociology and related disciplines in the social and behavioural sciences. Over 1600 journals and other serial publications are covered.

5. PSYCHLIT (Psychological Abstracts)

Publisher : Silver Platter

Period : 1974 - Present

Contains : Contains literature in Psychology and the related behavioural and social sciences including psychology and linguistics.

6. SOCIAL SCIENCE CITATION INDEX - With Abstracts

CITATION INDEX

11. Details of project / research topic

1. Objectives

2. Scope and coverage

12. Give titles and references of any two published papers which are relevant to your project.

13. List the terms which can be used for search as alternate terms (Abbreviations/Synonyms)

PAYMENT DETAILS

DD. No _____ Date _____ Amount _____

Details of person whom the receipt should be prepared

CERTIFICATION FROM THE SUPERVISOR/HEAD OF INSTITUTION

To
The Director
INFLIBNET Programme
UGC, Ahmedabad.

Mr/Ms _____ is student/staff

working with me. His / Her application may kindly be processed for CD-ROM search

Faculty member

Signature

Department _____

(seal)