Power point Slide for Post Graduates of SOS in LIS

Topic: **MICROGRAPHIC INFORMATION RETRIEVAL SYSTEM (MIRS)**

- For M.Lib. I.Sc. (Second Semester)
- Course Code: MlIS 202
- Course Title: Information Storage and Retrieval System

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Introduction

- Microforms are scaled-down reproductions of documents, typically either films or paper, made for the purposes of transmission, storage, reading, and printing. Microform images are commonly reduced to about one twenty-fifth of the original document size. For special purposes, greater optical reductions may be used.
- Three formats are common: microfilm (reels), microfiche (flat sheets), and aperture cards. Micro cards, a format no longer produced, were similar to microfiche, but printed on cardboard rather than photographic film.

History

- In 1939, John Benjamin Dancer, an English optician, produced micro-documents, which could be viewed with a microscope. He reduced a 20” documents to an image of 1/8” in length. Utilizing Dancer’s techniques a French photographer and chemist Rene Dagron obtained the first patent for microfilm in 1959 and began the first commercial microfilming enterprise. In the 1970’s the information explosion forced libraries and institutions and their users to microforms as an alternative to bulky expensive print materials. by 1972 micropublishing was receiving unprecedented emphasis with more than 50 million work of microforms being produced annually in the United States.

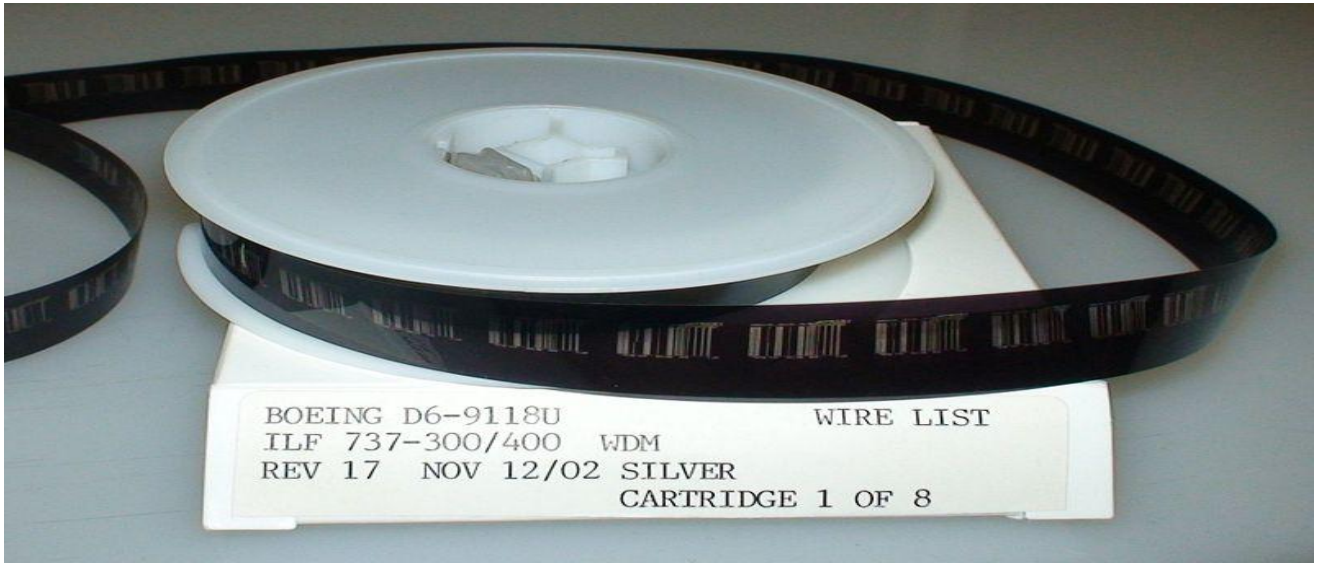
Uses

- The application of this technique came into prominence only during the Franco-Prussian war in 1870 when carrier pigeons were used to transport microfilmed messages across German lines to the besieged city of Paris. During World War II microphotography was used extensively for espionage and for regular military mail. Letters going overseas were sent on microfilm, and a hardcopy was produced and forwarded at the receiving side. Because of war a threat of destruction to the records of civilization was realized, which led to the need for the microfilming of records, documents, archives and collections. Over 25 books, journals and newspapers are now available in microform e.g., The New York Times, Times of India, Time Newsweek, Reports of the USERDA, National Aeronautics and Space Administration (NASA), etc.

Types of Microforms

1. Roll film
2. Micro Card
3. Micro-fiche
4. Ultra-fiche
5. Aperture Card
6. Ultra strips
7. Chips

- **Roll Film:-** Microform in roll form was one of the first microforms and it is simply a length of microfilm with 16 mm, 35 mm or 105 mm in width on a reel, spool or core. Roll films can be contained in a cartridge or cassette which protects the processed film from finger prints, excessive dust , and other similar damages.

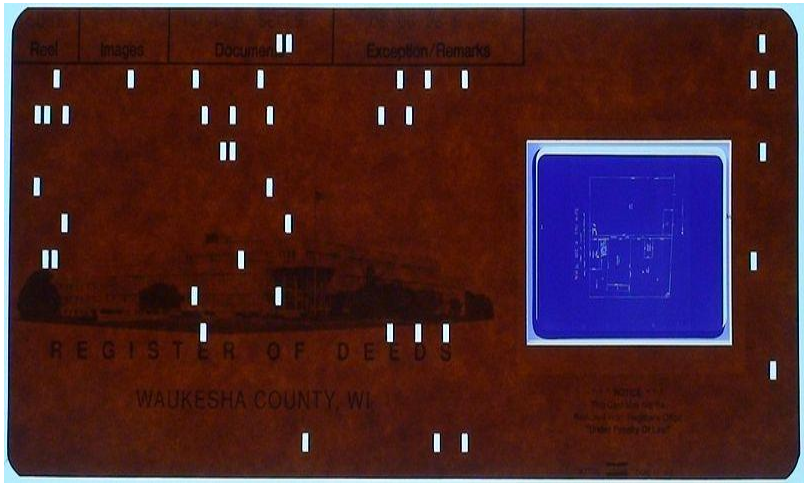


- **Micro Card:-**A micro-opaque has unitized multiple images printed on photograph paper arranged both sides and is used primarily for reading because it cannot be easily duplicated. Micro-opaques are now obsolete and are replaced by microfiches.

- **Micro-fiche:-** A microfiche is a sheet of microfilm containing multiple micro images (negative or positive) in a grid pattern. The microfiche usually contains identification information which can be read without magnification. A standard microfiche has the dimension 6” x 4” or 105” x 148 mm and can take 60-98 pages on reduction scale 1:20 or 1:24 respectively.

- **Ultra-fiche:-** Ultra fiche is another form of microfiche which contains about 2000-3000 pages having high reduction ratio exceeding 90x. Ultra fiche is not in common use.

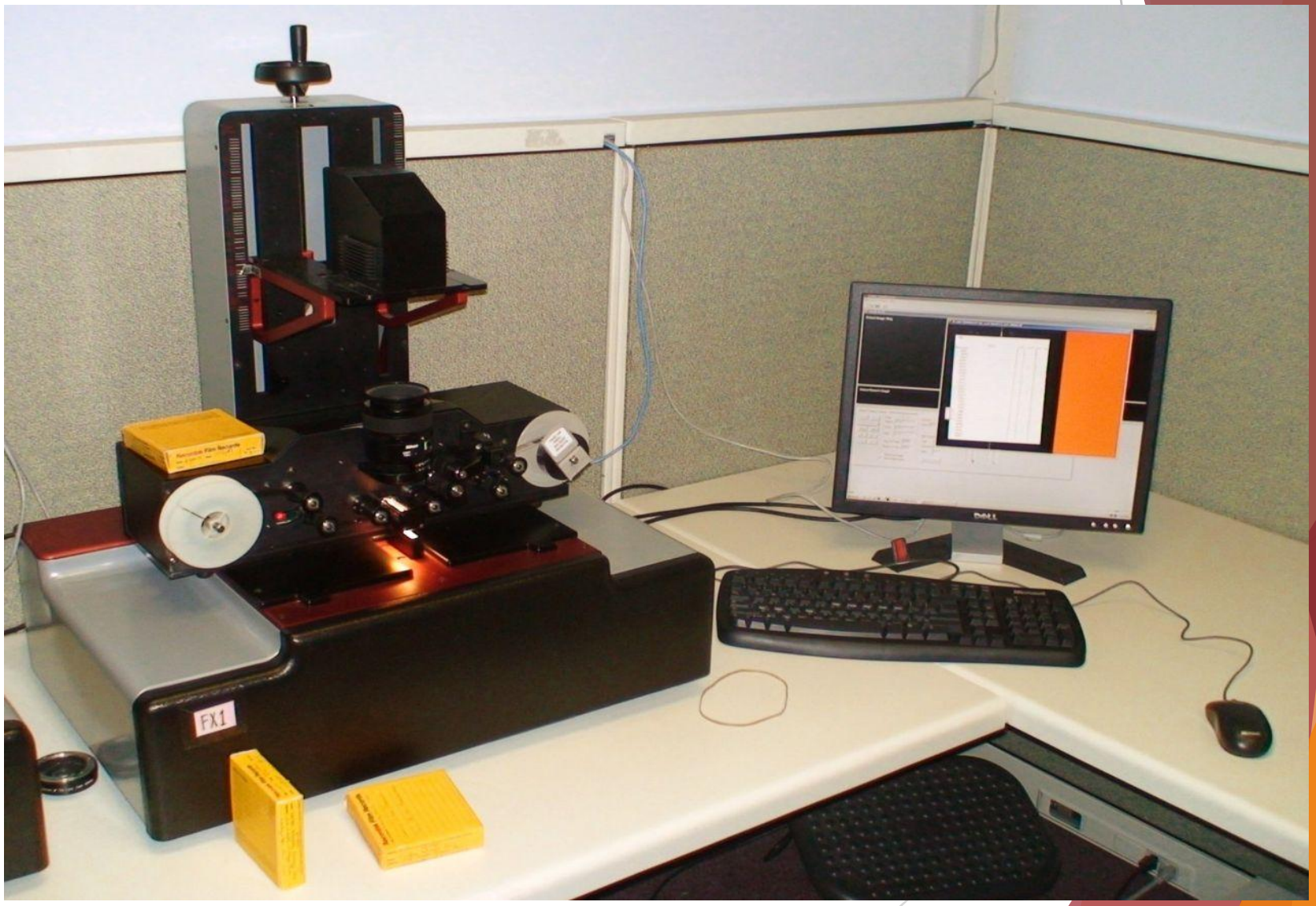
- **Aperture Cards:-** An aperture card is an opaque tab card with 4 rectangular hole or holes designed for mounting or insertion of microfilm. The card can also contain key-punched, interpreted and printed information for identification and retrieval. It is an united medium useful for engineering drawings system.



- **Ultra Strips:-**Ultra strips are short lengths of processed microfilm containing material photographed at a very high reductions. These are generally created in a two-step process which consists of filming the material and then refilling this film at higher reductions. This is an expensive process requires clean room environment.

- **Chips:-** A microfilm chip is a small, precisely cut unit of microfilm which contains micro images. These chips are stored in cartridges or cells in retrieval devices. Retrieval is done automatically by means of electronic circuitry and electro-mechanical equipment. The microfilm chip systems are not commonly available and are custom-designed primarily for special applications and are very expensive.

Microforms Readers




FOCUS
SCAN
DuKane
ON
OFF


MICROFILM/MICROFICHE READER - PRINTER

IMAGEhost is The Crowley Company's revolutionary new software system that allows users to easily access microfilm and microfiche in its original format from a desktop, laptop, tablet or smart phone. Working from three key components – access to image repositories, an indexed database and the IMAGEhost software – IMAGEhost maximizes the initial capture investment by offering maximum image exposure to a network, client or patron base.

Material Scanned

IMAGEhost Software/Hosting

View on Mobile & Traditional Devices

Log into a protected account

IMAGEhost offers immediate access to images in their original format.

View images

Hosted on our servers or yours, IMAGEhost boasts an intuitive interface with simple operational, editing and saving that work at the touch of a screen, the stroke of a keyboard or the click of a mouse.

Add images to cart with flexible output solutions

Selected images can be saved to hard drive, USB, printed or output to the cloud, internet or email programs.

Components of Microforms

- the microform
- the hardware used to create the microform
- the coding techniques
- the indexing techniques
- the hardware used to retrieve, display and print from the microform
- the work procedures
- the people.

MICROGRAPHICS AS AN INTERFACING TECHNOLOGY

- Computer Output Microfilm (COM)
- Computer Assisted Retrieval (CAR)

Advantages

- The medium has numerous advantages:
- It enables libraries to greatly expand access to collections without putting rare, fragile, or valuable items at risk of theft or damage.

- It is cheaper to distribute than paper copy. Most microfiche services get a bulk discount on reproduction rights, and have lower reproduction and carriage costs than a comparable amount of printed paper.
- Since it is analog (an actual image of the original data), it is easy to view.
- It is virtually impossible to mutilate. Users cannot tear pages from or deface microforms.
- It has low intrinsic value and does not attract thieves. Few heavily used microform collections suffer major losses due to theft.
- Prints from microfilm are accepted in legal proceedings as substitutes for original documents.

Disadvantages

- **User Resistance:-** The microfilmed records require a machine to be read. Often the microfilm reading machines in Libraries are of poor quality and not designed for human comfort.
- **Cost:-** Microfilming can be expensive. Costs incurred on microfilming include costs of equipment, cost of preparing documents for microfilming, and cost of producing indices and retrieval aids like microfilm readers etc.
- **Technical Limitations:-** Microfilming has certain technical limitations also. If a document is faded, badly stained the microfilm image of that document will also be of poor quality. Moreover, the production of high quality archival microfilm is based on knowledge of technical requirements and imposition of rigid quality controls. Without this, even original documents in excellent condition can result in poor quality microfilms.
- **Damage to the Original:-** The archival records being fragile may get damaged during the filming process. The microfilming process involves opening a bound volume and exposing the contents and filming it. This might crack or break binding and pages etc. if the original records are to be destroyed after filming this is not problematic. However, if the originals are to be retained, this is a drawback of the microfilming process.

Microforms vs. Digitization

- Microfilm has the advantage of maintaining access to information for hundreds of years. Digitization has introduced possibilities that seem limitless and advantages like enhanced access, diminished costs, versatile capabilities and usage. Libraries and institutions are now taking initiatives to exploit the new media for preservation purposes However, the technology for preserving digital materials is still in developmental stage and requires substantial investments to be made.

Conclusion

- The future development of micrographics depends on the developments that are taking place in related technologies to evolve absolute compatibility for interfacing. Digital information transmission through word processors, COM, CAR, etc. has succeeded in facsimile transmission information records across distances linked by telephone cables. Video text recording technology is also developing as a contender for handling information retrieval problems. Updatable microfilm has been successfully developed for handling information records requiring frequent updating. This holds a great promise for the development of many micrographic systems for whom lack of updating capability was a major bottleneck. The future is for high technology microelectronics and communication technology in the arena of Information Management.

References

- https://epgp.inflibnet.ac.in/

- IGNOU, Fundamental of Information Communication.
- IGNOU, Preservation and Conservation Of Library.

THANK YOU