Overview, Objectives and Types of ISAR System

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Overview/Meaning

- **Introduction:**

  Information storage and retrieval (ISAR) system details with their basic aspect.

- Information representation
- Information storage and organization
- Information access

Overview/Meaning

One of the best example of ISAR system is library system. Where information is stored, processed organized and retrieved on demand. Information could be store in a book, audio visual, images and so on.

Automated systems reduced the effective time of users in searching for information which, in effect, further improves the performance of the system. Therefore, tools like database management system (DBMS) are used for keeping records of a holding of library, which is known as Online Public Access Catalogue (OPAC).

Objectives of ISAR System

- To provide current information
- To search and store huge amount of information
- To provide exhaustive information
- To fulfill the everyday information need
- To catching-up or brushing-up information

Development

While designing any ISAR system designer should keep following points in mind:

- **Information facilitator:**

  The ISAR system should act as facilitator between the information (contained in document) and the users.

- **Non-Ambiguous:**

  The system should be so organized that ambiguity of information is avoided so that search result is tree from any kind of ambiguity. This requires identification of terms, setting their context and their proper indexing. For example, search for a term ‘screw driver’ should not bring results like ‘truck driver’, ‘hardware driver’ and so on.

- **Minimum Time:**

  The system should be so designed that minimum effort and time are spent to interrogate the system

- **User Friendly**

  Any ISAR should have user friendly interface. The important aspect of ISAR should be highlighted. Before with all its features. i.e. informing user about the scope of system, available search options. And most importantly how to perform search with the system. It is only this interface through which a user operates an ISAR system.

Types

- Speech Retrieval: Speech is an information-rich element of multimedia. Now there exist several techniques where information can be extracted from a speech signal in a number of different ways.

- **Cross Language Information Retrieval:** It is an application area of information retrieval, which deals with fetching information written in a particular language different from the language of the user's query. E.g., Using Hindi queries to retrieve English documents. It is one of the challenging fields and a lot of research is going on in this area.

Question-Answering IR system:

- Provide automatically answer, questions posed by humans in a natural language.
- Question-Answers implementation, usually a computer program, may construct its answers by querying a structured database of knowledge or information
- QA systems can pull answers from an unstructured collection of natural language documents.

- **Image Retrieval:** It helps the retrieval system for browsing, searching and retrieving images from a large database.

- The database may contain only digital images, images along with text or may contain other types of resources like graphics, videos, audios along with the image,
- Retrieve through metadata such as use of captioning, keywords, or descriptions to the images

- **Music Retrieval:** Music information Retrieval (MIR) is the interdisciplinary field of retrieving useful Information from Music.
- MIR, although small yet it is a growing field of research with many real-world applications. Several researchers working in MIR may come from different background which includes computer science, instrumentation, musicology, psychology, academic music study, signal processing etc.

Any Question

Thanks