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Meta Data: An Important Gradient of Information Sciences A Gateway to Knowledge Management & Economy

P.K. Paul¹, A. Bhumali² K.L. Dangwal³

*1*FBAS, Indian Institute of Engineering Science and Technology (IIST), Shibpur- An Institute of National Importance, Howrah, West Bengal, prancloud@outlook.com

*2*Vice Chancellor, Raiganj University, Raiganj, West Bengal,

3, DoE, University of Lucknow, Lucknow, Uttar Pradesh

Corresponding Author/Email: P. K. Paul/ prancloud@outlook.com

Abstract:-

Meta Data is actually data about data. It is one of the important aspects of modern Information Science. Meta Data actually describes list or contents of the original document or work. Meta Data is actually nothing but the standard bibliographic information, indexing as well as abstract which surrogate for actual document. Meta Data actually provides so many services to the knowledge management. It virtually makes sure that all the materials about the same subject are found attached in one online database. Meta Data helps in better Information Transfer Cycle or Information Management. This paper discusses about Meta Data; its characteristics and features, especially for the new comers in the field. Paper also talks about Meta Data's role, importance and value in contemporary time. Aspects on fundamentals of standards of Meta Data are also described.

Keywords:-

Meta Data, Information Science, Data about Data, Knowledge, Information Organization, Standards, ISO, ANSI, Dublin Core, Resource Description Framework [RDF], Information Transfer Cycle

Introduction:-

Meta Data is one of the important facets in today's world of information. The internet creates a revolution in information world; thousands and thousands websites are developed after the origin of internet and thus huge amount of information is also produced. Managing this information in

beautiful and sophisticated way is possible with the help of Meta Data. For collection of data and information we require many approaches and tools and Meta Data is approved as important platform for that. In market many bibliographical tools are available such as MARC, CIP, Subject heading list, Cataloguing formats, and classification schemes and so on but Meta Data is gaining popularity both in information seeker world and authors community. Virtually, Meta Data is actually data associated with objects, summaries, indexing terms and so on. Meta Data format may be offline or it may be online in nature.

Objectives:-

The main aim and objectives of this study includes:-

- To learn about Meta Data and its basics;
- To find out Meta Data and its characteristics in contemporary scenario;
- To learn about the role, importance and value of Meta Data;
- To find out main challenges and issues of Meta Data;
- To learn about some standards in Meta Data and related projects related to this.

Meta Data: What is it?

In simple form we can say that, Meta Data is actually data about data, it is actually nothing but the contents or list of the original document or work. Meta Data also treated as information design required by so many professionals such as authors, seekers of electronic information. This is actually used to evaluate, organize and integrate information. More clearly we can say that, the availability of vast sources of information in databases and internet and network lead the evolution of Meta Data. Organization and management of information and knowledge is the main aim and objective of Meta Data.

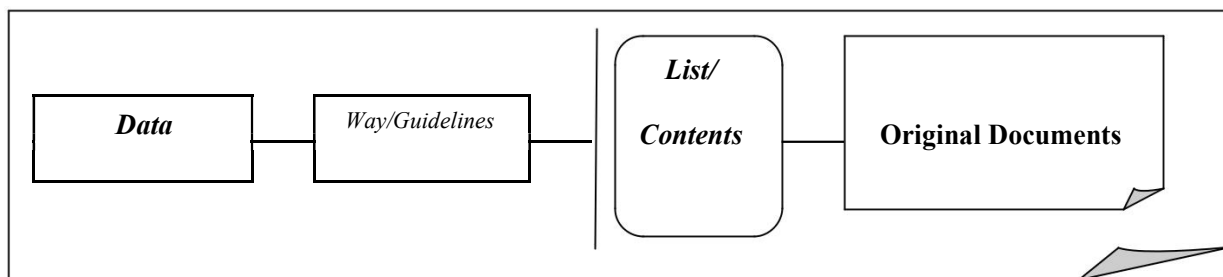


Fig: 1- Showing Basic about Meta Data

Meta Data: Role, importance and value:-

The main aim and objective of Meta Data is including, but not limited to—

- Meta Data is one of the helpful tool to evaluate, organize and integrate information.

- Keep scientific strategy in information and knowledge management.
- It helps in minimizing chaos in information professionals.
- It helps in information and knowledge management in respect of time and location.
- Helps in overall information systems development which includes information collection, selection, organization, processing and management due to uniqueness in information sharing.
- Helps authors, scientist, in finding resources in various fields.
- This helps in bibliographic access and control for decades.
- Meta Data is actually surrogate for larger work. It is ultimately helpful in data browsing, data transfer, digital documentations and so on.
- It helps in improving search strategies in many ways.

Some Meta Data standards

Meta Data may be created by using so many standards available. Practically, Meta Data may be created by the authors during preparation of Meta Data objects. However, some standards provide information adding Meta Data after preparation of digital objects. There are so many standards available but out of which The International Organization for Standards [ISO's] Meta Data working group, American National Standards Institutes [ANSI]'s Information Technology Group, W3C or World Wide Web Consortium actively on Meta Data like- RDF treated as most important standards as far as Meta Data is concerned.

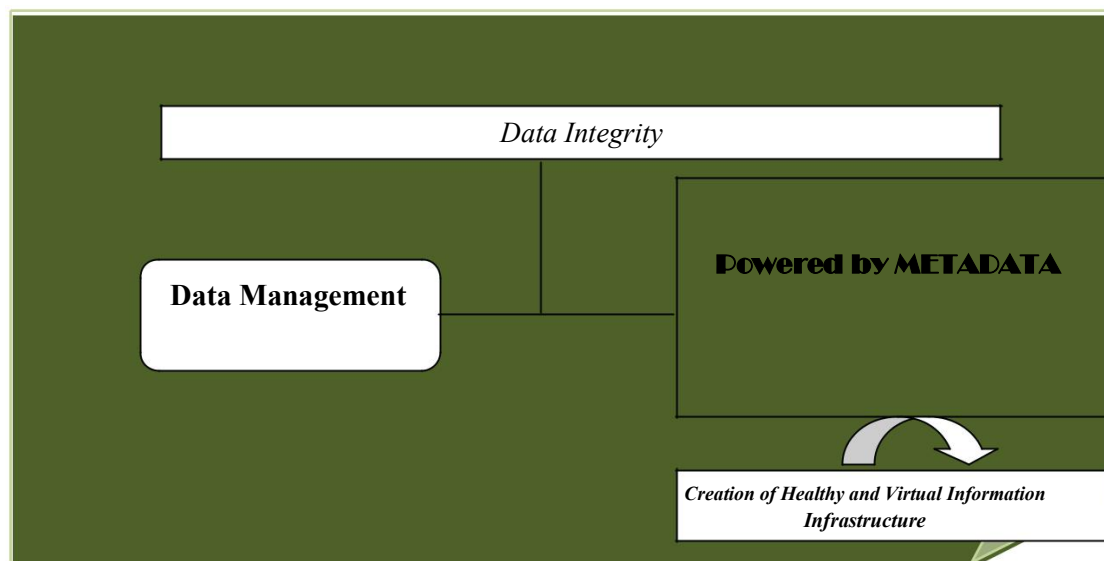


Fig: 2 depicted the way of virtualized information infrastructure with Metadata

Some Projects of Meta Data

As like so many standards of Meta Data there are many projects available in Meta Data field. Today some of the organization and agencies offering web based Meta Data form. OCLC's internet cataloguing project is treated as one of the important project which provides internet based cataloguing called InterCat. Out of some popular standard Dublin Core Meta Data standard introduced in the year 1995; which initially gain popularity in the field of libraries, museums and later on gained popularity in the digital repositories, digital libraries, digital museums, information networks, Information Systems and so on. Dublin Core Meta Data incorporated with core 3 Group and combined with 15 elements. An Austrian Organizations also initially gained popularity in this field by introducing 'Meta Web Project'; this is mainly planned to develop indexing services, user tools and Meta Data elements and so on.

However, CIMI or Computer Interchange of Museum Information also involved in Meta Data project and work as extension of Dublin Core with so many features. It is helpful in Digital Information Management. The EDUCOM and NISTI involved a project called the instructional management systems [IMS] provide details features of Dublin Core along with dictionary facilities.

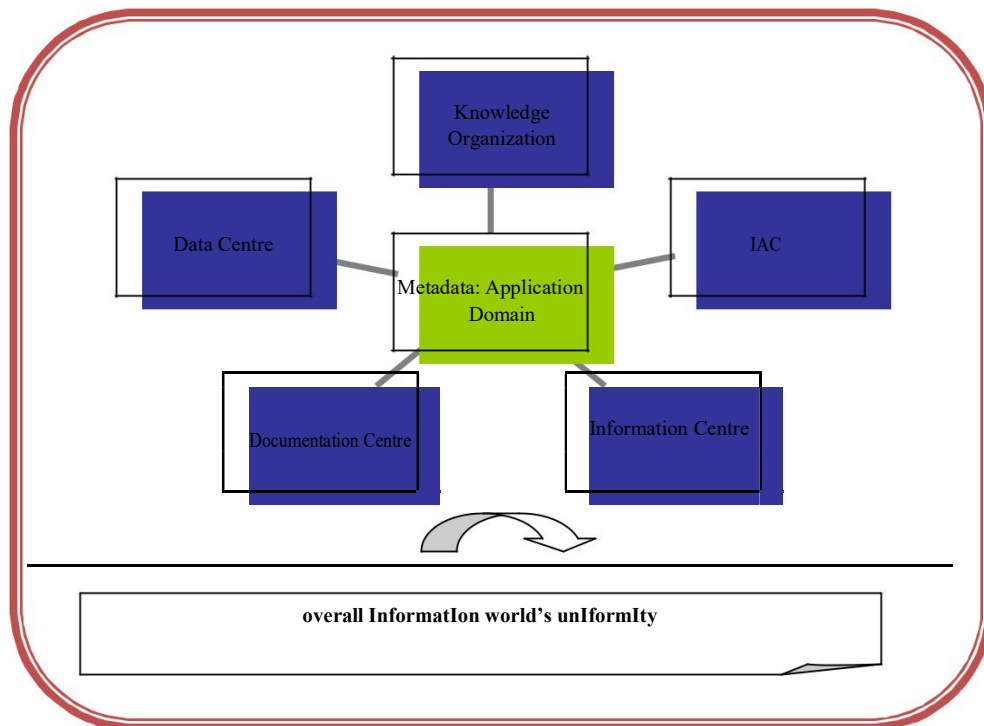


Fig: 3-Depicted some area where Metadata is most popular

Virtually, out of many projects Warwick Frame Work as additional feature included in Dublin Core which includes MARC record and Dublin Core record and ultimately content with following three main broader groups (*K Kapoor*):-

Content: - *which includes*

- Title
- Subject
- Description
- Sources
- Languages
- Relation
- Coverage

Intellectual Property: - *which includes*

- Creator
- Publisher
- Contributor
- Right

Instantiation: - *which includes*

- Data
- Type
- Format
- Identifier

Findings:-

- Meta Data helps in Information Management and all the materials about the allied or same subjects or discipline available in a particular database or online database;
- It helps in proper and healthy utilization of indexing vocabularies and some language problem in many ways;
- It helps in information world broadly which includes information systems, information networks, digital repositories and so on;

- Online and offline metadata gain popularity in many ways than traditional one;
- Use of standard term and word in database or search engine provides a good results in many ways;
- A sophisticated Meta Data also helps in Search Engine to understand the meaning.

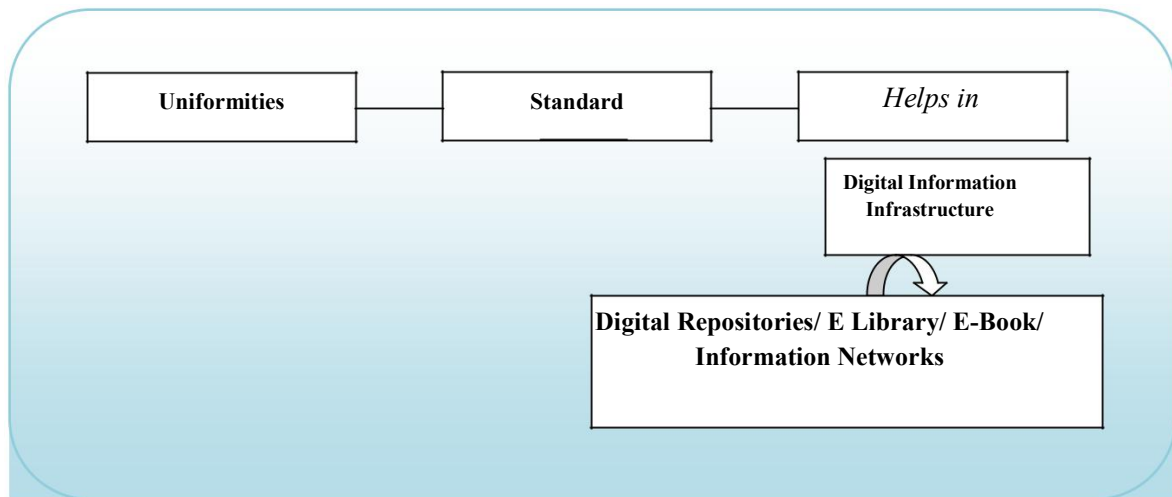


Fig:-4 Depicted Metadata and its role as uniformity

Conclusion:-

Information and its size is increasing day by day. Similarly many new domain and dimensions of information processing and management are evolving. The online information is mainly provided by the internet and there are many organizations that use offline Digital Information Systems. Along with the availability of information the exact information retrieval at the required time is also essential, this problem may be solved by using proper standards and there are many standards already in knowledge world including indexing, abstracting, cataloguing, classification and so on. Meta Data is also emerging as an important name in Digital and online Information Management; which not only helps information seekers but also helps authors; publishers, information organization and overall information management in various ways.

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