An Overview of Social Semantic Digital Libraries

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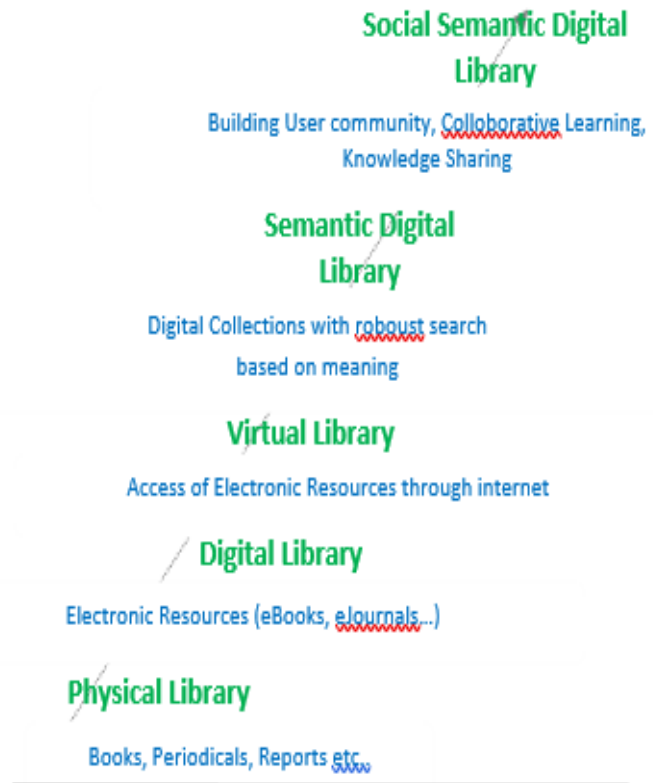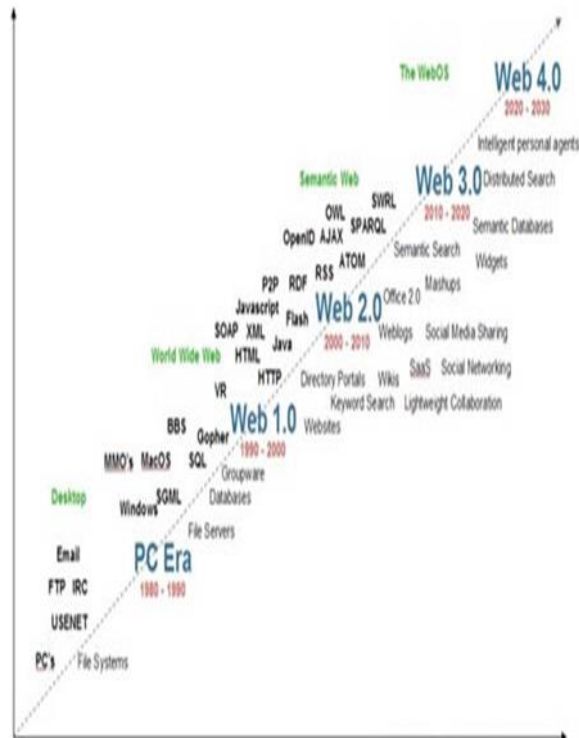[1] Librarian, Sacred Heart College (Autonomous), Vellore (Dt) – 635601
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Abstract- The intend of this paper is to explore the significance of Social Semantic Digital Library which makes a user community to involve in information sharing within or outside the community. It is a knowledge discovery technology which supports creativity, innovative thinking of an individual. This paper also states some of social semantic digital libraries who are currently working on social semantic research.

Keywords- Semantic Web, Library Services, FOAF, User Communities, JeromeDL

I. INTRODUCTION

Libraries are the best place where most of the technologies introduced or implemented. With the help of the modern technologies, the libraries changed the expectations of its users. Today, people are busy with their daily routines so they wanted to get everything at the doorsteps. Hence, the library also have to change its dimension for its users from the habit of accessing physical resources in the library to delivering resources through wireless medium or on the waves by the improved technology.

As web growing constantly from web 1.0, web2.0, web 3.0 (semantic web) and web 4.0 (social semantic web), the impacts of web technologies on library functions move towards the fullness of user oriented online services. The web and library are similar in its functions;

- Collections
- Storage
- Classification
- Organizing Information and Retrieval / Dissemination

1. Social Semantic Digital Library – What it is?

A Social Semantic Digital Library is a web platform for sharing knowledge, ideas and opinions by the individuals with the user communities through semantic technologies. It requires integration of user profiles and search histories and evaluation.

It enables a user community to actively involve in sharing knowledge within the community.

II. IMPORTANCE OF SOCIAL SEMANTIC DIGITAL LIBRARY

Semantic Digital Libraries mainly focus on information organization and structural information retrieval from the database but it doesn't provide an opportunity to share the information or knowledge of the user with other user. It leads lack of collaborative learning and divergence thinking. To overcome these barriers,

- Social Semantic Digital Libraries have made the web collaborative and interactive[1];
- It helps the reader to be involved in content annotation process.
- It facilitates better communication between the user and the communities.
- Provides the facility to transfer the information dissemination and personal experiences from set of individuals to the other.

III. SOCIAL SEMANTIC DIGITAL LIBRARY APPLICATIONS

There are many successful semantic web projects in a variety of sectors including medicine, scientific publishing, commerce, libraries, etc.

➢ **Friend of a Friend (FOAF)**

- FOAF Friend of a Friend is a machine-readable ontology for describing people, their activities and their relations to other people and objects.
- It can be integrated with library systems to incorporate bookmarks and annotations by contacts and experts identified by a user as "friends".

        visit :http://www.foaf-project.org/

Examples: LiveJournal, MyOpera, identi.ca, MyBlogLog, hi5, Fotothing, Videntity FriendFeed, Ecademy, Typepad

➢ **Simple Knowledge Organisation System (SKOS)**

- SKOS is a RDF application developed by w3C.
- It provides a data model for Knowledge Organisation System.
- The SKOS specifications include tools such as information retrieval thesauri, taxonomies, classification schemes, subject heading lists, and other forms of authority list or knowledge structure.

- SKOS enables data to be linked or merged by semantic web applications with other controlled vocabularies or subject indexes where complex data integration is required. It is used to improve the recall, retrieval precision and provides a number of searching methods for users.

➢ **DBpedia**

- DBPedia is a linked Data project created as part of the Wikipedia project by Tim Berners-Lee.
- It aims to extract the structured content from the information and that structured information is then made available on the WWW.
- The users can query the relationships and properties associated with the resources, links to related datasets available on Wikipedia.

➢ **Semantically-Interlinked Online Communities**

- The main objective of the SIOC is to address interoperability issues on the (Social) Web.
- It aims to integrate the Online Community User Information through Semantic Web technologies to describe the information that communities have about their structure and contents, and to find related information and new connections between content items and other community objects.
- It works based around the use of machine-readable information provided by these sites.

➢ **BRICKS**

- BRICKS (Building Resources for Integrated Cultural Knowledge Services) is an Integrated Project of the 6th Framework Programme "Integrating and Strengthening the European Research Area".
- It is an open source software used to design and develop user- and service-oriented infrastructure to share knowledge and resources in the Cultural Heritage domain.
- It provides a possibility of sharing contents from neighbourhood institutions and Cultural Heritage centres.
- The infrastructure of BRICKS enables Expandability, Graduality of Engagement, Scalability, Availability and Interoperability.

➢ **JeromeDL**

- JeromeDl is a Semantic Digital Library open source software developed by DERI, Ireland.
- It uses semantic web tools to browse and search resources.
- Supports a variety of document format and allows institutions to publish documents on the web.
- Resources can be classified according to : UDC, DDC, LOC , ACM, DMOZ.
- WordNet and Open Thesaurus are used to build vocabularies to construct bibliographic descriptions.
- MarcOnt plays a role as Bibliographic Ontology with the co-operation of MARC21, Dublin Core and BibTex.
- Users can share their book marks, annotations, feedbacks and comments with others.
- The simple search is processed based on the keywords, advanced search is based on metadata and semantic search is based on RDF query and Natural Language Query.

IV. CONCLUSION

Semantic digital libraries integrate heterogeneous information resources and related the information through RDF and make the information well structured which can be ready by the machine (browser). It delivers the information user friendly and accurately. Digital library users can connect with other social networking technologies to share their knowledge with the public community. Social Semantic Digital Library promotes collaborate research within the wall (Intranet) or through Internet. It is a role of library professionals who has to adopt the new technologies into their workplace and make the library services beyond the borders.

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