PRACTICE OF TAXONOMY FOR KNOWLEDGE ORGANISATION ON SELECTED EDUCATIONAL INSTITUTION'S WEBSITES

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Abstract: This paper will walk around the practice of taxonomies on the different educational institution's website for organising the bundle of knowledge. This paper will enlighten the way of knowledge organisation through taxonomies .The purpose of this research paper is to know about those websites which are practices taxonomies to organise the knowledge in various educational institution's websites. Thirty educational institution's websites were selected to study for this research work, belongs to Europe's educational institutions. This paper will include some University's websites and library's websites. This work will reveal the facts that implementation of taxonomy improves the organization and management of unstructured knowledge. Taxonomy also provides the easy access to the required information and saves the time of the users.

Keywords: Taxonomy, Knowledge Organisation, Knowledge Management, Library Website, University Website,

Introduction:

In the midst of the information ocean, it is hard to get the requisite information without killing the time. Taxonomies are upper level knowledge search devices, built to provide a means of understanding, steering and attainment of access to knowledgeable wealth. They are tools for knowledge organisation and discovery devices for knowledge management. Taxonomies are widely used by some university websites and library websites for organizing the knowledge. Here are some examples of different University's and library's websites which are organising their knowledge resources by using the taxonomies. College names, course list, subject list, databases, e-resources and many more can be arranged with the help of taxonomies in the format of A-Z in the various websites.

Review of Literature:

Taxonomies are not new. Man has been trying to put order into his world ever since his first attempt to understand nature. The written word allowed man to express his thoughts and concepts. So intellectual assets were born. With more thoughts and concepts recorded, there was a need to organize the written works [3]The system that we still use today for giving scientific names to plants and animals has many founders, from the Greek philosopher Aristotle to the Swedish physician and botanist Carolus Linnaeus.[4] Given the long history of library science organizing information it is not at all surprising that librarians are currently organizing the Internet for such companies as Yahoo, NorthernLight.com search engine, Amazon.com , Microsoft, etc. Some of the most important organization for our global e-commerce rests on the shoulders of librarians who are quietly organizing the world of knowledge as they have for so many thousands of years. "Amazon.com has 50+ cataloguers on their staff and Microsoft's internal portal has three full-time taxonomists on the payroll."2 [1] Taxonomy's first father was the philosopher Aristotle (384-322 BC), sometimes called the "father of science." It was Aristotle who first introduced the two key concepts of taxonomy as we practice it today: classification of organisms by type and binomial definition. [4] The term taxonomy tends to be used to refer to two different things: a) a tree-hierarchical controlled vocabulary lacking more complex relationships found in thesauri or ontologies, or b)any kind of controlled vocabulary, especially when applied to the world of enterprise content management and website information architecture, rather than library science literature retrieval.[2] we now use taxonomies for creating metadata or common words to describe an object, for information retrieval, categories, supporting browse navigation schemes, governing webpage layout & structure and data control lists used in support of data mining (searching thousands of data records to uncover patterns and relationships contained within the activity and history store to fulfil a reporting request) [5] For a large enterprise to share information across diverse product lines and functions, a common language or taxonomy is required to classify the information. The best way to develop the common taxonomy is to look at the hierarchies currently in use. [6]Using a consistent taxonomy for content storage helps an enterprise understand the information it holds as well as that which is missing. By referencing like information within a single schema it will be able to use related information that was previously divided into separate areas of management - this is particularly important, though more complex, when working with multi-disciplinary teams. [7]American evolutionist Ernst Mayr has stated that "taxonomy is the theory and practice of classifying organisms" [8] Taxonomies are increasingly being used in object oriented design and knowledge management systems to indicate any grouping of objects based on a particular characteristic. [9] Taxonomies are the basis of classification schemes and indexing systems in information management such as the Dewey Decimal System. Taxonomies are even more wide spread with applications including post codes (zip codes) used by postal services and job categories used by tax collection agencies. With the advent of the internet, there has been increased interest in using taxonomies for structuring information for easier management and retrieval. One of the first big e-business organizations to harness taxonomies was Yahoo (www.yahoo.com). To help users navigate the web, they developed a broad and deep structuring of topics covered on the web. Starting from a general topic, users can navigate to desired topics of interest at an appropriate granularity. Whilst this is a large taxonomy, it is not a sophisticated in terms of the underlying formalisation. Yet it is an approach that is being pushed by further organizations such as Word map (www.wordmap.co.uk) who have added some context-sensitive disambiguation of search terms.[10] Lists are the most basic form of taxonomy and are good for non-complex issues. A list is also a first step towards certain more complex taxonomies, whereby sub-categories are added to the main elements of the list…Tree structures reflect the way we think. The

different branches of the tree hierarchy allow us to distinguish basic broad categories and also more specific ones, and are powerful in that they display cause-effect relationships in the taxonomy. They show hierarchical relationships as well as horizontal ones. Tree structures are the most used taxonomies in enterprises… Hierarchies are a specific kind of tree structure. They can be represented as pyramidal structures, where the transition from one level to the next is predictable and consistent. Hierarchies work well in biology.…Polyhierarchies thus accommodate topics that belong to different categories and that may not fit in tree structures or hierarchies. They are complex visual representations, as they often entail many connections between categories and words. They work well when hyperlinks allow for jumping between categories and cross-references… Matrices work best with a well-defined body of knowledge that can be organised along two or three dimensions. They can help make sense of categories and highlight gaps or missing categories once they are laid out… Facets were introduced in 1932 by Indian librarian S.R. Ranganathan, who had decided to find an alternative to the Dewey Decimal System for classifying books… System maps are visual representations of a knowledge domain, in which proximity and connection between categories, as well as real world relationships, are expressed. They are useful when there is a coherent system of knowledge that can be communicated visually.[11] A simple definition of taxonomy is that it is a hierarchy of categories used to classify documents and other information. A corporate taxonomy is a way of representing the information available within an enterprise.[12]

Objectives of the Study:

Without well thought objectives, any study, leads to nowhere and the efforts put in go waste. In other words, objectives are the expectations of the researcher from the study. Following are the objectives of this study:

- To study taxonomy for knowledge organisation and management.
- To enlighten the importance of the taxonomy in the field of knowledge organisation and management.
- To reveal the application of taxonomy in various educational websites for arranging their knowledge resources.
- To know about the ratio of the practise of taxonomy in various educational institute's websites.
- To create awareness about taxonomy amongst the LIS community.
- To support the taxonomy for knowledge organisation.

Research Methodology:

Research methodology is a technique to sort out the research problem. Various articles have been studied to sort out the research problems. The following research methods and techniques have been adopted in the present study:

[1]Literature survey: To get clarity about the concept of taxonomy and its implication for the organisation of knowledge. With this objective during the literature survey an effort has been made to document various definitions given by renowned authors. Some of the selected statements are given in the literature survey.

[2]Websites survey: During this study various websites have been studied to get the best results of the research work and for enlighten the fact. These websites, belongs to various educational institutions are organising and retrieving the knowledge with the implementation of taxonomy.

Data Analysis:

The Presentation of data makes a vital part for any study. In order to achieve the settled objectives of the study, the data was collected through various websites of educational institutions.

1. **Taxobank Terminologies:**

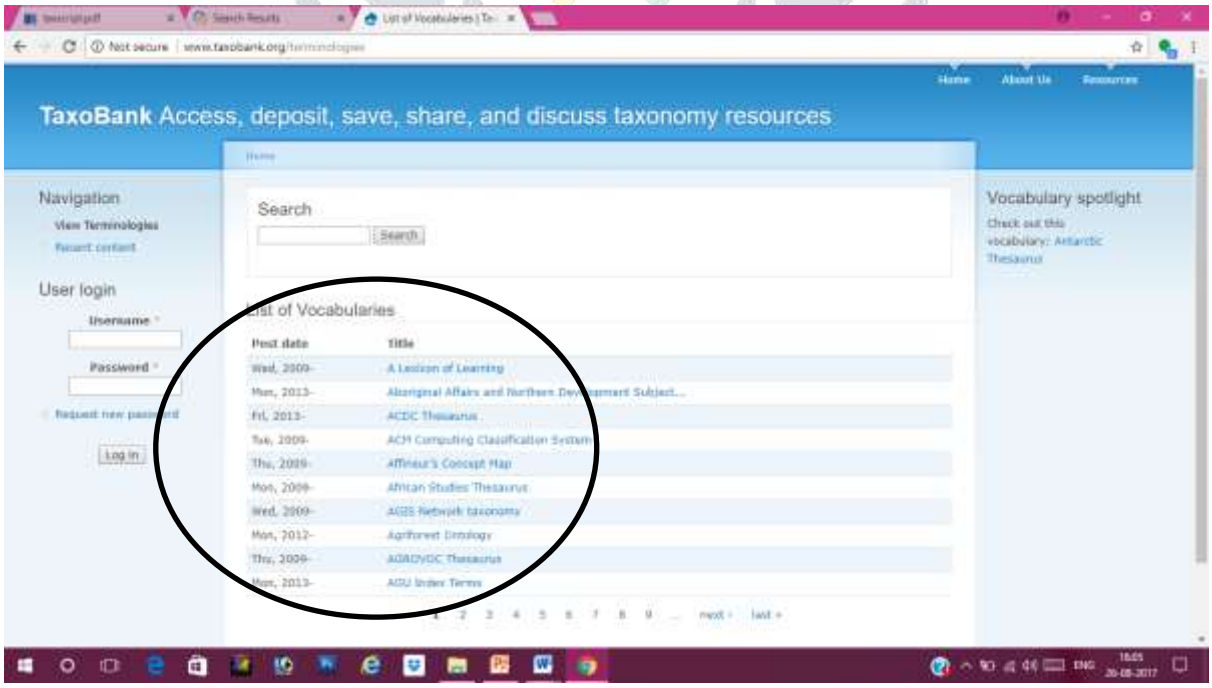

Figure: 1 Source:www.taxobank.org/terminologies

Fig. 1 TheTaxoBank contains information about controlled vocabularies of all types and complexities. It invites people to both browse and contribute. There is a term lists for special purpose use and it generate ideas for building your own vocabulary and perhaps find one that can give you a faster start.

2.McGill University Library:

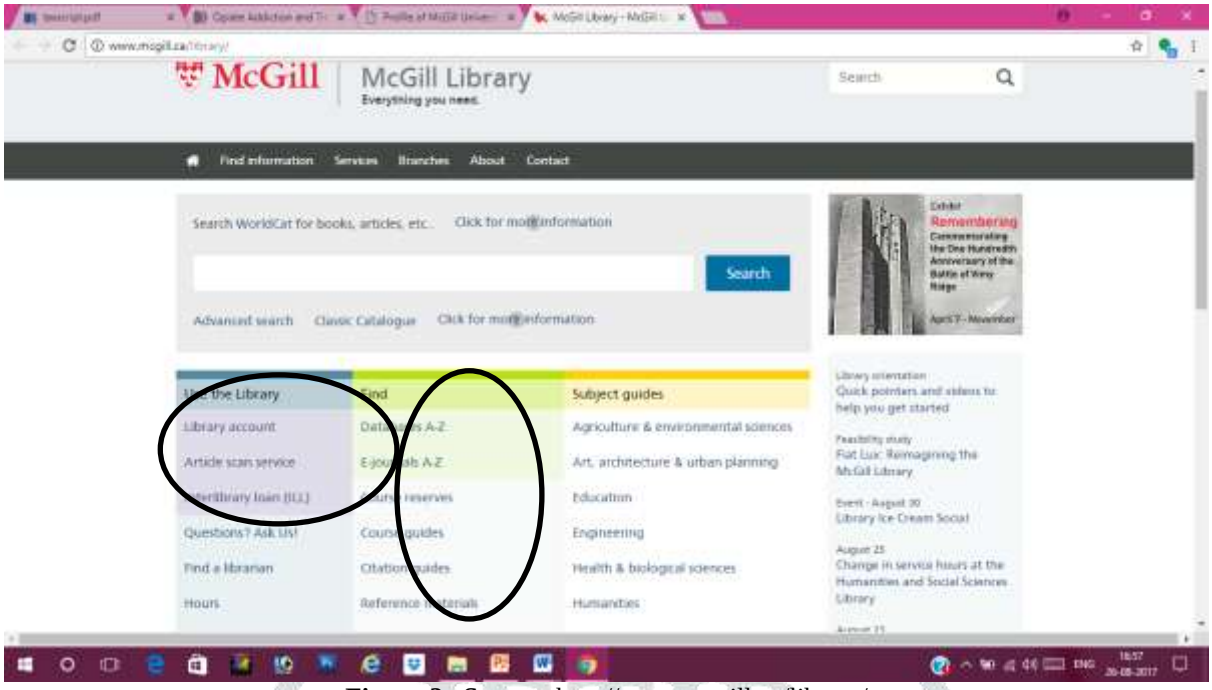

Figure:2 Source: http://www.mcgill.ca/library/

In Fig. 2 McGill University Library is providing A-Z databases and E-journal A-Z for the easiness of their users as they will retrieve the knowledge or information immediately without any difficulty.

3. Berkeley Library, University of California:

Figure 3 http://ucelinks.cdlib.org:8888/sfx_ucb/az

In the **Fig:3** University of California, Berkeley Library it is also implementing taxonomy to find out the e-journals titles, providing at their library.

4. Berkeley University of California

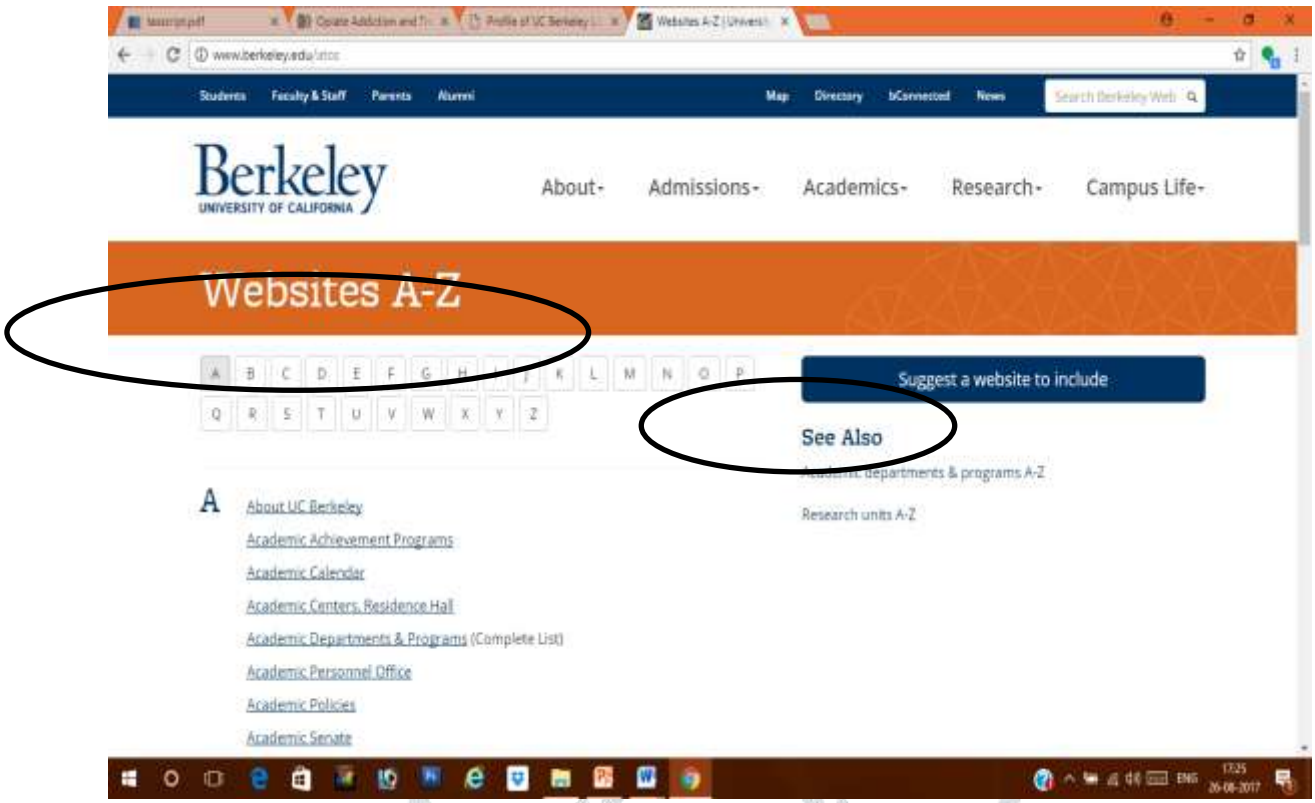

Figure: 4 Sources: http://www.berkeley.edu/atoz

Fig. 4. Berkeley University of California is implementing the taxonomy on its websites A-Z. Not only has this but it also noticed that academic departments &programs and research units are also based on Taxonomies.

5. US Department of Health and Human Services

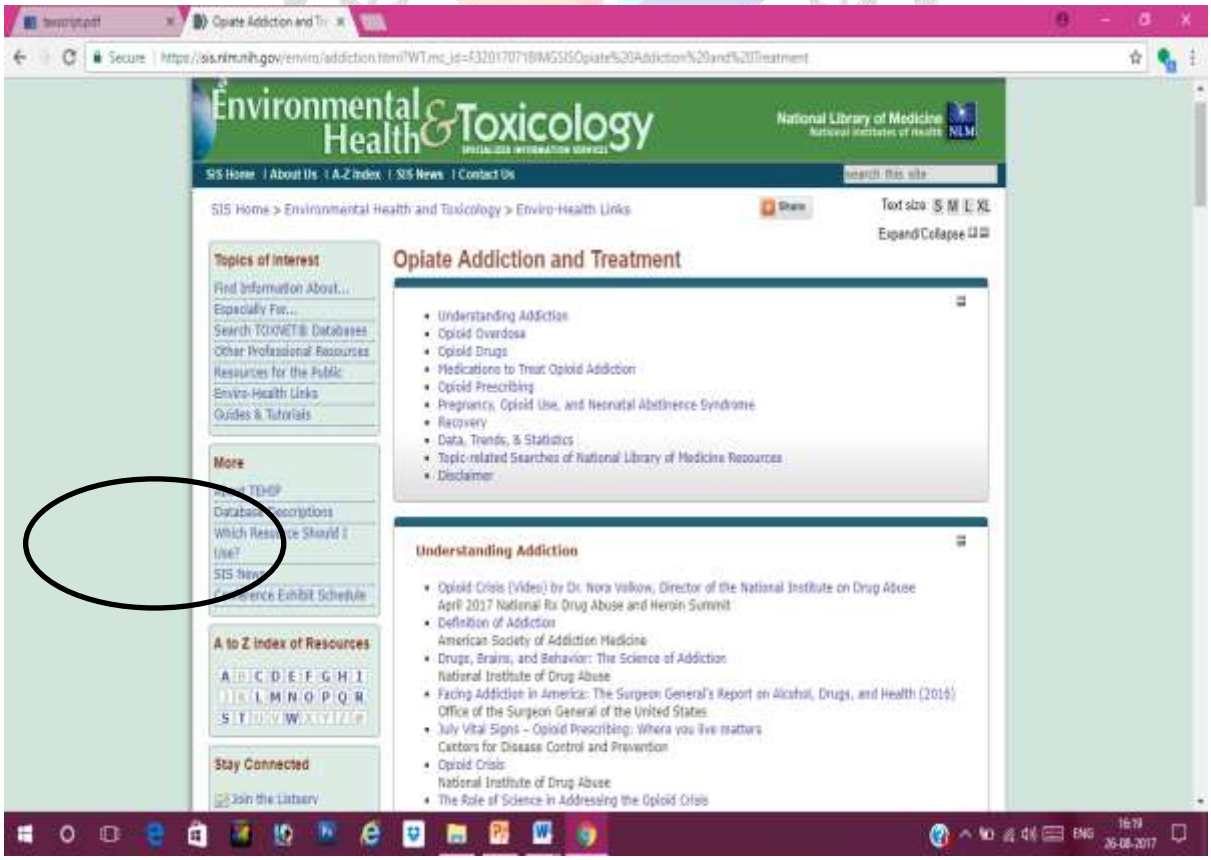

Figure 5. Source:https://sis.nlm.nih.gov/enviro/addiction.html?WT.mc_id=F320170718IMGSISOpiate%20Addiction%20and%20Treatment

In the **figure 5** National library of Medicine is providing taxonomy list as A-Z index of resources. With the aim of facilitating the easy access of library resources to the user.

6. Portland State University Library

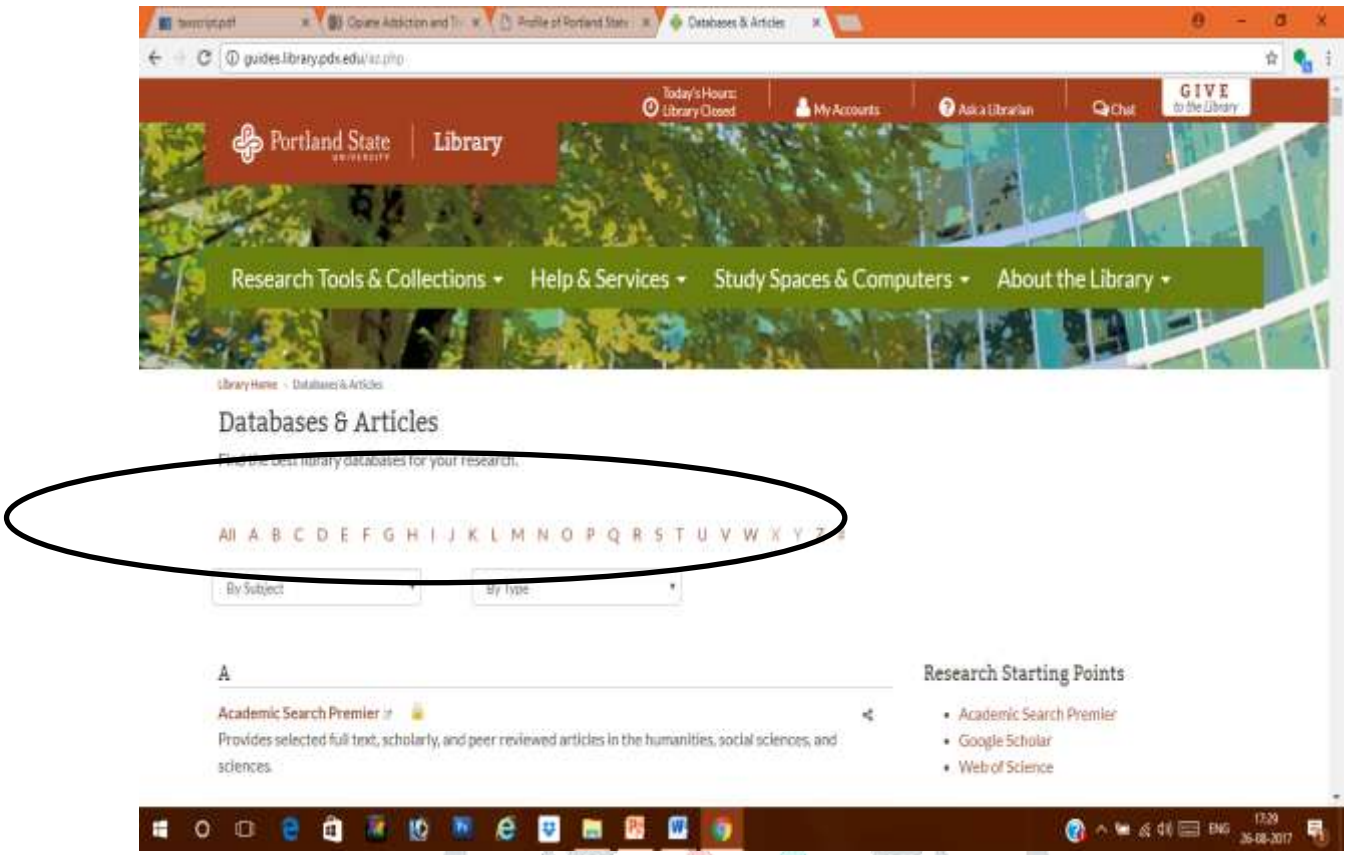

Figure 6.Source :http://guides.library.pdx.edu/az.php

In the figure 6 Portland State University Library website it can be seen that taxonomy is there for generating the easy access to databases and articles section.

7. The Ohio State University Libraries

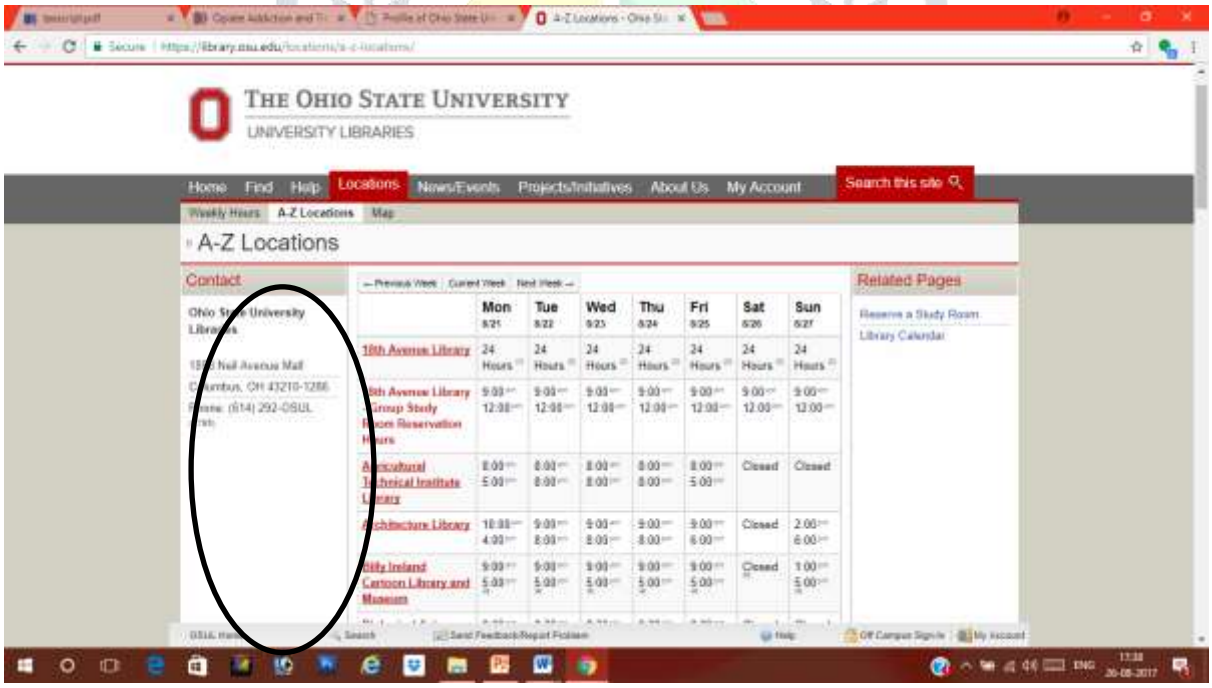

Figure 7:Source: https://library.osu.edu/locations/a-z-locations/

In the **figure 7** it is visible that user can access the website to know about the working hours (timings\days) of all the libraries related to the Ohio State University. This list is having the information about 30 libraries connected with Ohio State University.

8. University of Arizona Libraries

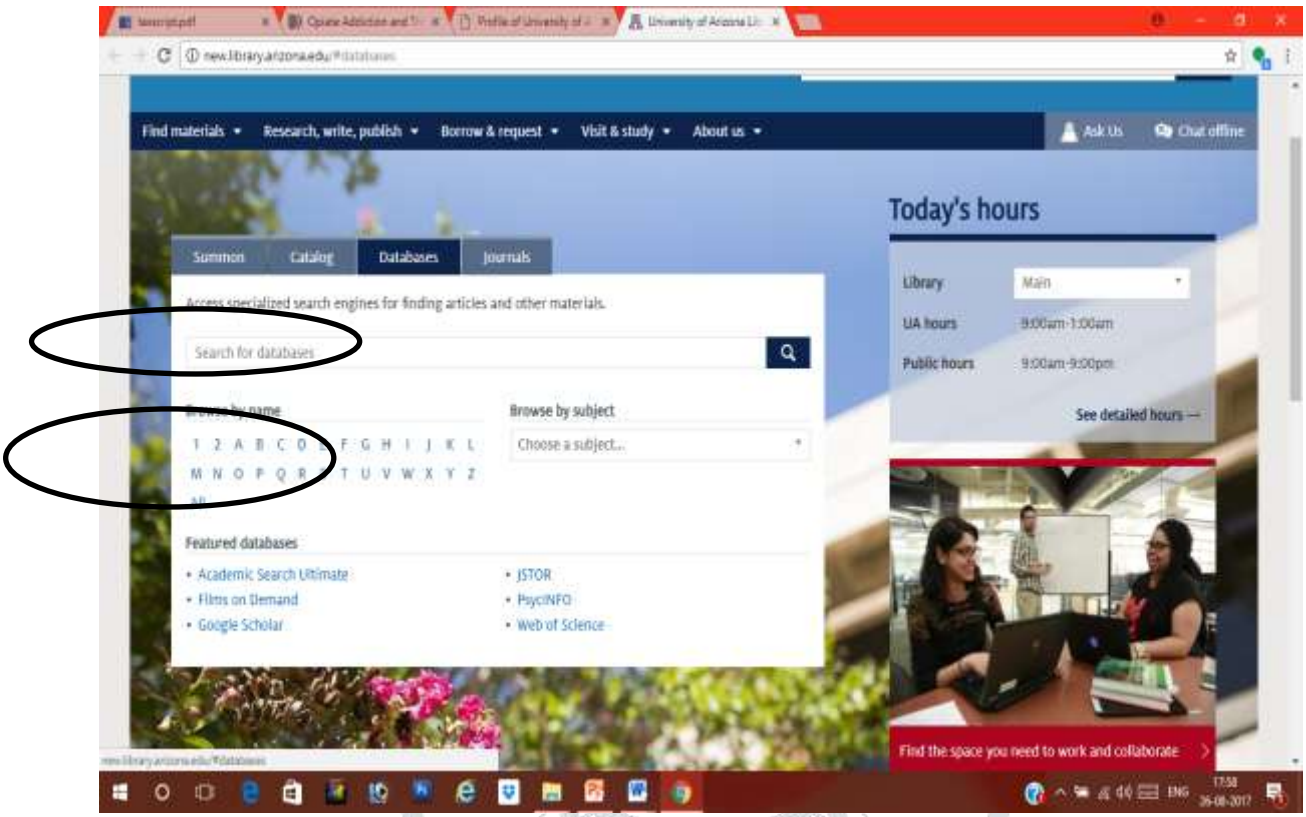

Figure 8.Source: http://new.library.arizona.edu/#databases

It can be seen in the **figure 8** that databases can be browsed by name and featured databases are also available in the alphabetical order.

9. University of Arizona Libraries

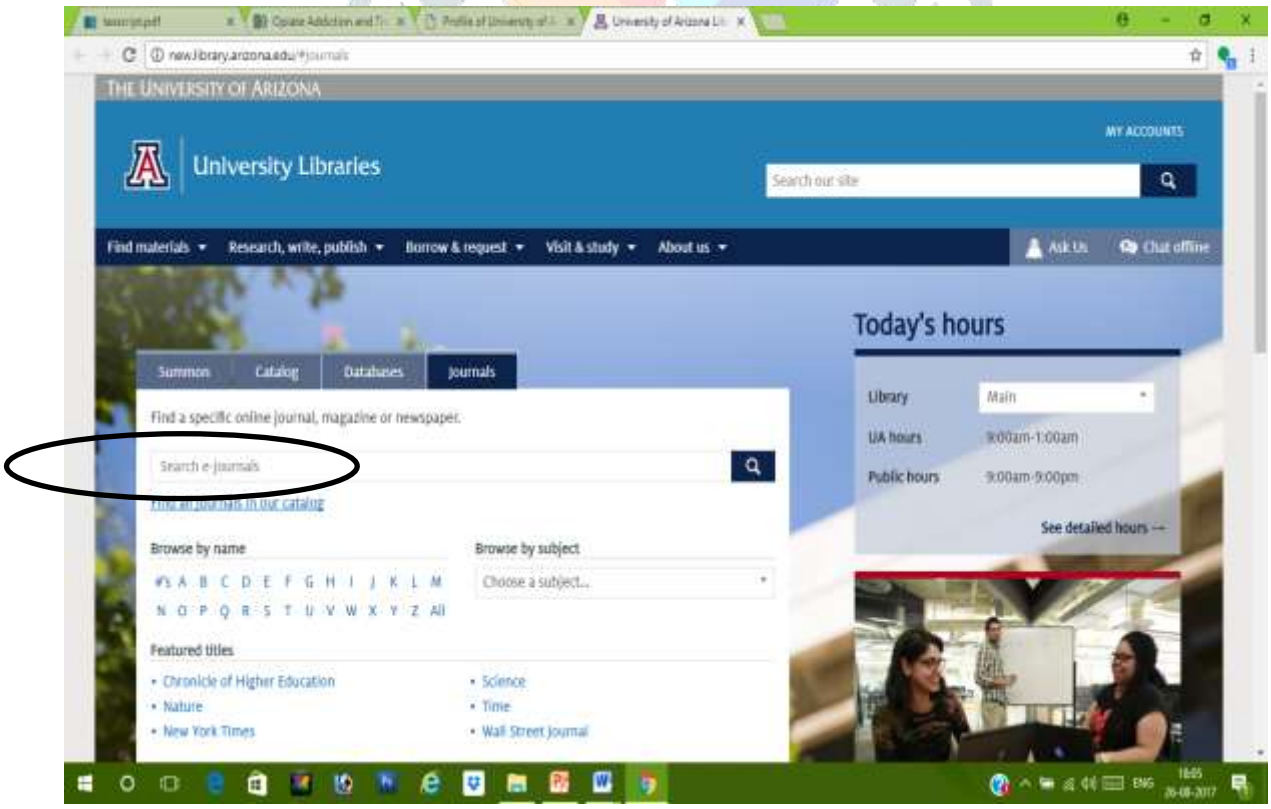

Figure 9: Source: http://new.library.arizona.edu/#journals

In the figure 8 and 9it can be seen that The University of Arizona is providing the taxonomy for its journals access services and it's databases. This is very helpful for the user to find out the particular journal by its name.

10. University of Maryland Libraries

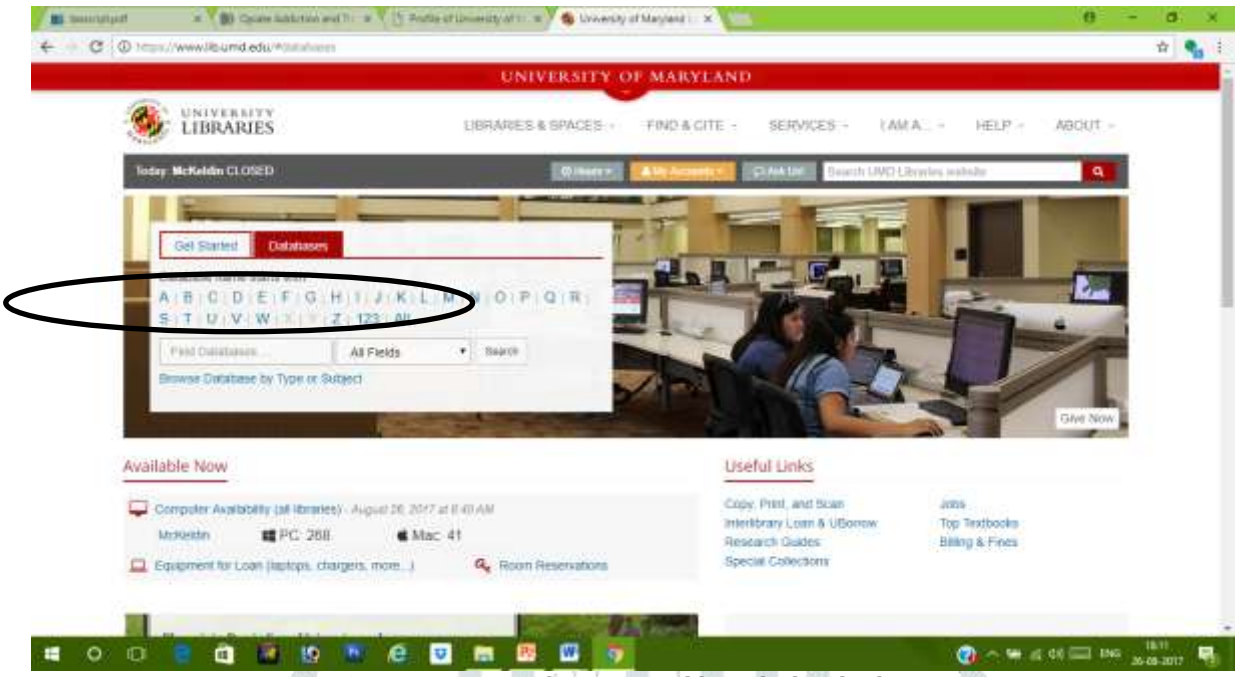

Figure 10. Source: https://www.lib.umd.edu/#databases

In the figure 10. Databases retrieval is there with the help of taxonomy again. Actually subject's arrangement is becoming difficult due to vast areas of knowledge. So, by taxonomy it can be arranged easily. It is providing instant access to the user on its databases.

11. Abertay University

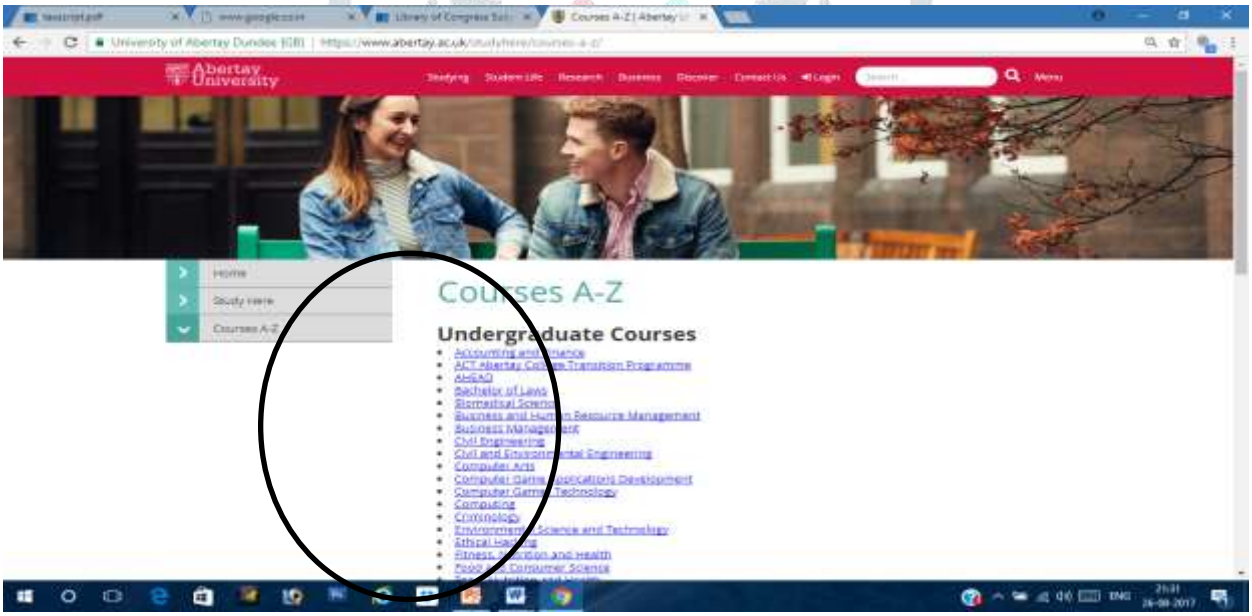

Figure 11. sourcehttps://www.abertay.ac.uk/studyhere/courses-a-z/

Abertay Univesity in the **figure 11** has shown that it is the uses of taxonomy on the website for providing the better services to the clientele.

Findings:

While conducting literature review, it has come to know that taxonomy is very useful for knowledge organisation and management. There were 95% authors were giving statements in the favour of taxonomies. During the different educational institutional website's survey the fact will enlighten that 90% of websites are using taxonomy successfully and this is helpful to provide the accurate information quickly. Its time saving and fewer efforts are required to get the requisite information. Most of the websites are using taxonomy for their databases, e-journals and for subject courses etc.

Conclusion:

The study concludes that taxonomy is widely using on the websites of Europe's educational institution. There is a need for information professionals to study about the taxonomy building. It's necessary to know about the benefits of taxonomy's implementation. It also concludes that use and implementation of the taxonomy for knowledge organisation must be there for saving the time of the user and for providing the instant services in the library's world.

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