EFFECTIVE USE OF INTERNET FOR KNOWLEDGE RETRIEVAL IN COLLEGE LIBRARIES

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Abstract

The main objective of this paper is the effective use of internet especially by the college students by using the some freely available tools over the internet. Today many people are using and browsing the internet but many of them are getting frustrated to find the right information at the right time, especially the teenagers wasting the lot of time for getting their required information over the internet. Here we made an effort to consolidate the knowledge tools which are useful especially for the college students to find out their related information by using the subject gateways, Meta search engines, bookmark etc.

Keywords: Internet Use, Knowledge Access, College libraries, College Students, Subject Gateways, Meta Search Engines, Open sources.

1. INTRODUCTION

The usage of internet is increasing day by day from the last decade. India is now world's third largest internet user after U.S, China. India now has nearly 74 million Internet users, 31 per cent increase over March 2012[1]. According to the World Bank data, the considerable usage of internet growth (8.2%) find in its population in India, from 4.4% to 12.6% has increased simultaneously in 2008 to 2012[2]. Due to information communication technology applications, the usage of internet is growing in multi-dimensional area of subject. Literature also treasure considerable growth over the last few decades. Exponential growth in the bulk of information it is impossible for faculties, students and research scholars to be anticipated to memorize every technical journal and text book available, in fact based on current estimates the amount of information doubling every five years. This growth can be called as "big bang of information or knowledge", this will leads to 'information overload', 'information anxiety', 'time burden', 'nervousness' to the users of internet. To overcome from these problems we need some strategy, tactics to browse the internet. Especially for the teenagers, students much required the specialized tools, websites, subject gateways, search engines to reduce their time in greater extent. So it is responsibility of the library and

information science professionals to provide the right information to the right reader at the right time.

2. USE OF INTERNET

Many people are using internet to find information, friends, charting or for their interest of area. The question is how effectively they are using internet especially concerned with new users and college students. Let us take an example, suppose a user need to login to facebook, in first step user will open a search engine like Google and then type the keyword "facebook" and click on the first link of the result page. For this we have to cross the three to four steps, instead of doing this every time we can directly use the address bar by typing the www.facebook.com or by doing bookmarking directly we can enter the home page of the any website. For the effective use of internet firstly user should develop some search strategies according to their need of the information. Then go for the search or browse of internet.

3. KNOWLEDGE RETRIEVAL

Knowledge is systematically organized fact in library, Information Centres, Archives, and over the internet world. Any sources of information or knowledge procure, organize, stored for the later retrieval. These days it is very difficult to retrieval of relevant information from the storages, due to the growth of abundant of knowledge or information over the internet. Information retrieval is concerned with all the activities related to the organization, processing and access to, information of all forms and formats. An information retrieval system allows people to communicate with information system or service in order to find information-text, graphic images, and sound recordings or video that meets their specific information needs.

4. KNOWLEDGE RETRIEVAL TOOLS

A computer system allows unlimited access to genuinely expert knowledge. The results of this experiment reveal a number of different information accessing strategies and tools linked to individual user characteristics and retrieval effectiveness

4.1 BOOKMARKING OR FAVOURITES

A bookmark or favourites is a Uniform Resource Identifier (URI) that is stored for later retrieval in any storage formats. Almost web browsers include bookmark topographies. Bookmarks are called favourites in Internet Explorer, and by virtue of that browser's large market share, these terms have been synonymous with bookmark since the first browser war. Bookmarks are normally accessed through a menu in the user's web browser, and folders are commonly used for unification.

Bookmarks have been incorporated in browsers since the Mosaic browser in 1993. Bookmark lists were called Hotlists in Mosaic and in previous versions of Opera; with the

advent of social bookmarking, shared bookmarks have become a means for users sharing similar interests to pool web resources, or to store their bookmarks in such a way that they are not tied to one specific computer or browser. Web-based bookmarking services let users save bookmarks on a remote web server, accessible from anywhere.

Newer browsers have expanded the "bookmark" feature to include variations on the concept of saving links. Mozilla Firefox introduced live bookmarks in 2004, which resemble standard bookmarks but contain a list of links to recent articles supplied by a news site or weblog, which is regularly updated via RSS feeds. "Bookmark lets" are JavaScript programs stored as bookmarks that can be clicked to perform a function.

Use of Bookmarks or Favourites

There are over a billion web sites on the web and many of these have long and complicated URL's. Surfers need a way to remember where their preferred web sites can be found on the web. Internet Explorer's Favourites and Netscape's equivalent Bookmarks are facilities that enable to store the URL's of web sites. It can be possible to organise favourite URL's into folders of related links - for instance we can create different folder like sports, movies, entertainment, nature, music etc. And we can store or bookmark the related links in the related folder.

To arrival to an earlier bookmarked websites is a simply go for Favourites (or Bookmarks) and by hitting the link to the site you want to see. See the below Fig-1Gogle Chrome Bookmark.

Fig-1Gogle Chrome Bookmark Screen-Shot

4.2 WIKIPEDIA: (www.wikipedia.org)

Wikipedia is a multilingual, based on an openly editable model, web-based, free-content encyclopaedia project sponsored by the Wikimedia foundation. Wikipedia is written collaboratively by largely anonymous internet volunteers who write without pay. Anyone with internet access can write and make changes to Wikipedia articles, except in limited cases where editing is restricted to prevent disruption or vandalism. Users can contribute anonymously, under a pseudonym, or, if they choose to, with their real identity. Since its creation in 2001, Wikipedia has grown rapidly into one of the largest reference websites, attracting 470 million unique visitors monthly as of February 2012. There are more than 77,000 active contributors working on more than 22,000,000 articles in 285 languages. There are 4,388,394 articles in English. Every day, hundreds of thousands of visitors from around

the world collectively make thousands of edits and create thousands of new articles to supplement the knowledge held by the Wikipedia encyclopaedia.

4.3 OPEN SOURCES

4.3.1 DOAJ: (Directory of Open Access Journals)

The aim of the DOAJ is to increase the visibility and ease of use of open access scientific and scholarly journals, thereby promoting their increased usage and impact. The DOAJ aims to be comprehensive and cover all open access scientific and scholarly journals that use a quality control system to guarantee the content. In short, the DOAJ aims to be the one-stop shop for users of open access journals.

The content of DOAJ is available freely through http://www.doaj.org/ website without any embargo period. Almost all scholarly and scientific subjects humanity, science, social science, management, law, etc., periodical are covered that publish research review papers in full text. It will accept all academic, government, commercial, non-profit private sources. It consists of 9804 journals, 5636 Journals searchable at Article level and 1573847 Articles.

4.4 META SEARCH ENGINES

Meta search engine is a search engine which search simultaneously more than one search engine indexes to retrieve the required information for a user. Meta search engines display their results in two ways

Single List- Most of Meta search engines exhibit multiple-engine search outcomes in a single combined list, from which replica records have been detached.

Multiple Lists- Some of the Meta search engines do not organise multiple-engine search fallouts but present them instead in distinct lists as they are acknowledged from each engine. Duplicate items could perform.

Examples of Meta search Engines

4.4.1 DOGPILE: Web Search (http://www.dogpile.com/)

Dog pile is a Meta search engine created by infoSpace. It retrieves information best results from leading search engines like Google, Yahoo!, and Yandex. While searching we can set the preferences like relevance, recent search, search filter and advance search is possible. It is also possible to browse the information by web, video, images, news, local search and also white pages. See the below Fig-2 dogpile Mata Search Engine

Fig-2 Dogpile Mata Search Engine Screenshot

4.4.2 METACRAWLER (www.metacrawler.com)

MetaCrawler is another popular Meta search engine from infoSpace and fetches results from Google, Yahoo!, and Yandex. It also facilitates the advance search and preferences such as relevance, recent search, search filter etc. it also facilitate the browsing information by web, images, news, yellow pages and white pages.

4.4.3 MAMMA (www.mamma.com)

Mama Meta search engine is primarily started in 1996 as first Meta search engine and propagated as mother of all search engines, for the reason that it gathered and organized the web's content from more than a few of the foremost search engines. This search engine provides information for browsing facility on Web results, News, Images, and Videos.

4.4.4 SEARCH.COM: Search the Web by searching the best engines from one place (http://www.search.com/)

Search.com is one of the popular engines among the Meta search engines. It is facilitate to browse the information under the categories of Web, Images, News, Shopping, Downloads, more including Games, People, Music, Video and entrainment etc. Search.com provides the other services like Top searches, free search software, advanced search, Settings, help and etc. Search.com choose the search engines to include in search Google, Blekko, DMOZ, Bing and other search engines.

4.4.5 Other Examples

Hotbot (http://www.hotbot.com/)

Deeper web (http://deeperweb.com/)

Excite (http://msxml.excite.com/)

4.5 SUBJECT GATEWAYS

Subject gateways, unlike search engines, these are created and maintained by human editors, not automatic crawlers or machines. The editors' evaluate and choose top quality sites for enclose in their directories on the basis of previously resolute selection norms. The resources in the list are commonly interpreted. Subject directories are best for browsing and for searches of a more general nature. They are good sources for information on popular topics, organizations, commercial sites and products. When you would like to see what sort of information is accessible on the web in a actual area of concern, go to a gateway and browse through the subject categories.

Followings are some of the examples of subject gateways has discussed.

4.5.1 PINAKEE: A Subject Lunch pad (http://www.hw.ac.uk/libWWW/irn/pinakes/pinakes.html)

In ancient times, the Library of Alexandria was seen as a universal store of human knowledge. As the Library grew in size, however, it became increasingly difficult to locate relevant material. The poet Callimachus solved the problem by assembling a catalogue called The Pinakes. On a far smaller scale, these Web pages hope to afford a similar function for Internet assets, by linkisng to the foremost subject directories. It provides information about 36 specialized subject gateways and 09 Multi-Subject Gateways. See the below Fig-3 PINAKEE Subject Gateway Home Page

Fig-3 PINAKEE Subject Gateway Home Page

4.5.2 INTUTE (http://www.intute.ac.uk/)

Intute was launched in 2006 and developed by a number of librarians and researchers won JISC funding to develop their ideas for new Internet gateway service station under eLib Agenda. Later these subject services amalgamated together to create the **Resource Discovery Network (RDN)**.

The Intute consortium was with seven universities including University of Birmingham, The University of Manchester, Manchester Metropolitan University, University of Nottingham University of Bristol, Heriot-Watt University and University of Oxford.

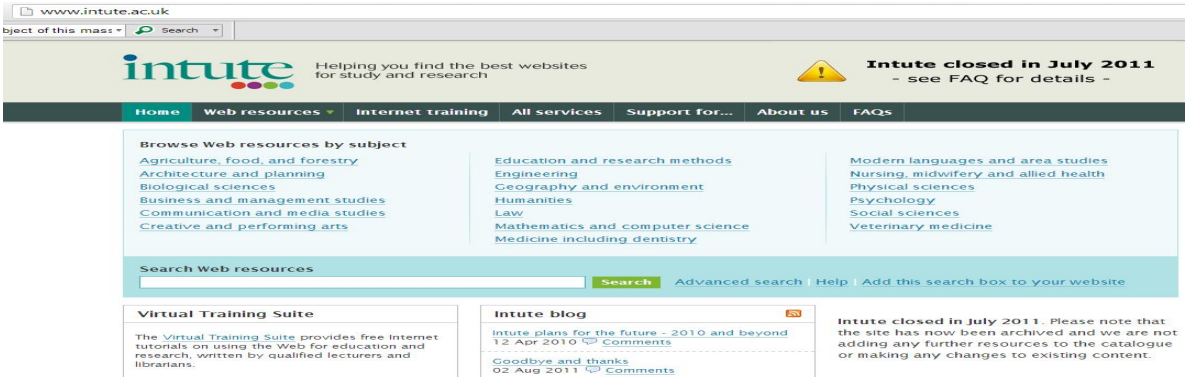

Fig-4 Intute Subject Gateway Home Page

Intute gives information about Agriculture, Architecture, Business and management, Engineering, Geography and environment, Humanities, Law, Social sciences, science and technology, Veterinary medicine etc., it categorised the sources by subject wise to sources easily. See the above Fig-4 Intute Subject Gateway Home Page

4.5.3 BRITISH LIBRARY: Explore the World's Knowledge (http://www.bl.uk/eresources/socsci/gateways.html)

British library listed all freely available sources under electronic resources, journals and Social Science electronic resources, Gateways and Portals. Really it is consisting of many subjects' gateways and portals which containing abundant of freely available resources on internet. For e.g. Development Gateway, Economic and Social Research Council, Law links, Parline Database, Biz/Ed, and Charity Choice etc.

4.5.4 SCIRUS: For scientific information only (www.scirus.com)

SCIRUS is the most widespread science-specific search engine on the internet. Determined by the modern search engine technology, SCIRUS hunts over 575 million science-specific web pages, scholarly, enabling Pinpoint scientific, technical and medical data on the Web.

Find the latest reports, patents, peer-reviewed articles, preprints and journals that other engines failure. It offers fashionable functionalities envisioned for experts and researchers.

SCIRUS has proved so successful at locating science-specific results on the Web that the search engine watch awards voted SCIRUS 'best specialty search engine' in 2001 and 2002 and 'best directory or search engine website' web award from web marketing association in 2004, 2005, 2006 and 2007.

4.5.5 INFOMINE (http://infomine.ucr.edu/)

INFOMINE scholarly internet resources collection is a cybernetic library of Internet resources pertinent to faculty, research staff and students at the university level. It encompasses advantageous Internet resources such as databases, e-journals, e-books, bulletin boards, mailing lists, online library card catalogues, articles, directories of researchers, and many other types of information. INFOMINE is built from librarians of the University of California. See Fig-5 INFOMINE home page

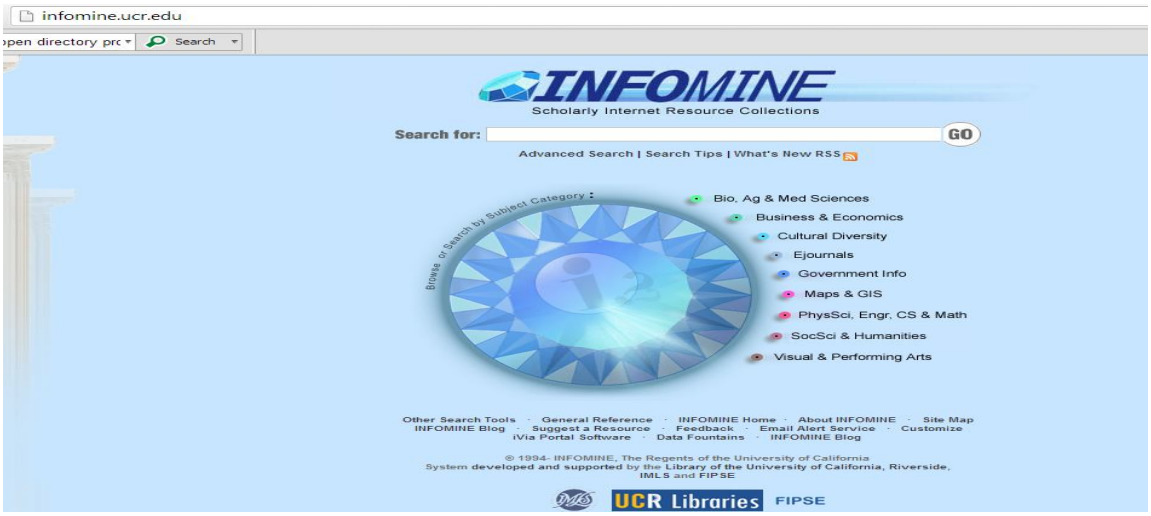

Fig-5 INFOMINE home page

4.5.6 IPL2: Information You Can Trust (http://www.ipl.org/)

Internet Public Library2 is a community service organization and a learning/teaching environment. To date, thousands of students and volunteers of library and information science professionals have been engaged in responding reference queries for ipl2 librarian service and in designing, building, generating and upholding the ipl2's collections. It is through the efforts of these students and volunteers that the ipl2 continues to thrive to this day.

In January 2010, the website "ipl2: information you can trust" was launched, merging the collections of resources from the Internet Public Library (IPL) and the Librarians' Internet Index (LII) websites. The site is hosted by Drexel University's College of Information Science & Technology, and a consortium of colleges and universities with programs in information science are involved in developing and maintaining the ipl2

Fig-6 IPL2 Home Page Screenshot

Internet Public Library website support for integrated search as well as provides browsing facilities. The sources are categorized into five sections i. e. Resources by subject, Newspapers and magazines, Special Collection created by ipl2, for kids and for teens. These sections will provide different information to the different users. The resources by subject contained the information like arts and humanity, business and economics, science and technology, social sciences, health and medical science, computer and internet, education, law, government and political science, entertainment and leisure etc. see Figure-6 IPL2 Home Page Screenshot.

4.5.7 DMOZ open directory project (http://www.dmoz.org/)

DMOZ Open Directory Project (ODP) is the largest, most exhaustive man-edited directory of the WWW. It is constructed and sustained by a vast, global community of volunteer editors. It is collaborative venture with AOL search, through this we can access the information on different topics given its home page (shown in the figure) and also gives integrated search and advance search as well. Instead of hostile the explosive development of the Internet, the Open Directory offers the means for the Internet to organize itself, As the Internet grows, so do the number of net-citizens. These citizens can each organize a small portion of the web and present it back to the rest of the population, discarding out the bad and useless and keeping only the best contented. See Figure-7 DMOZ Home Page Screenshot

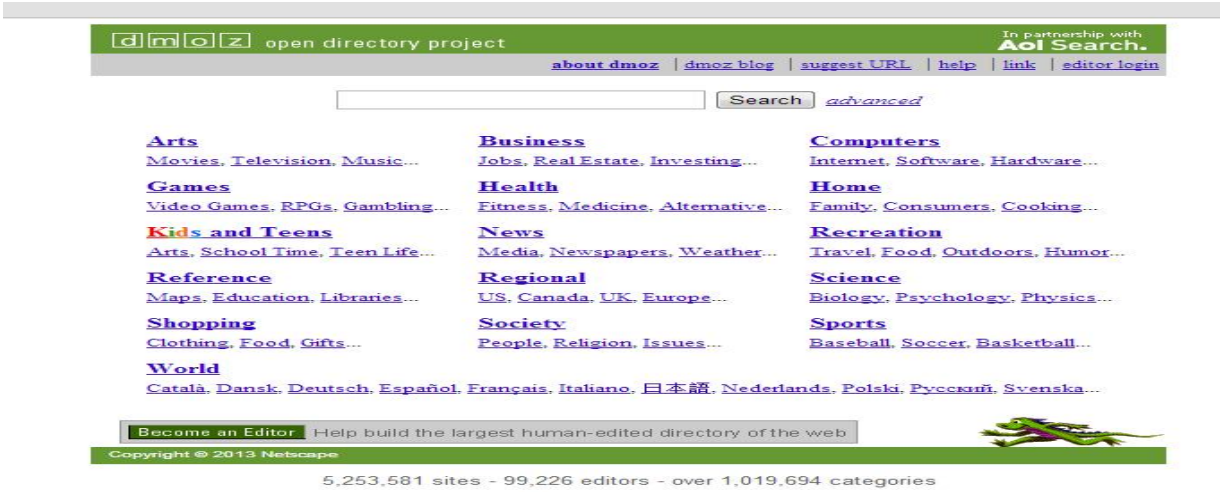

Fig-7 DMOZ Home Page Screenshot

4.5.8 SciCentral: Gateway to the best science news sources (http://www.scicentral.com/index.html)

Since 1997, the SciCentral editors have been accumulating breaking exploration updates from the most trustworthy and consistent sources. The service has acknowledged over 30 Web awards and enthusiastic reviews from most prominent science publishers for the quality of its service. Over 700 other websites point to SciCentral as a reliable source of information. It is ranked news sources based on Reliability, Timeliness of the information, and Extent of daily coverage, Multidisciplinary coverage and alike. It covers almost science and technology subject in its content and top news on a particular subject. Figure-8 SciCentral Home Page Screenshot

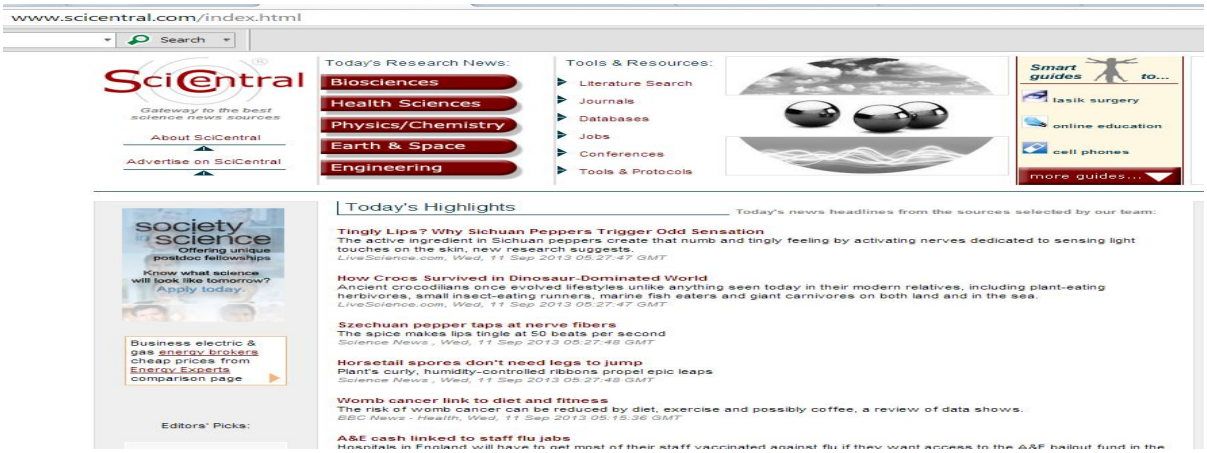

Fig-8 SciCentral Home Page Screenshot

4.5.9 Agriculture and Public Health Gateway (http://aphg.jhsph.edu/)

The Agriculture & Public Health Gateway connects visitors to abundant information sources within topic areas that link these two fields. It can be a powerful tool for researchers, journalists, advocates and educators, providing access to suggested resources linked from the site. The two most important means of retrieving information through the gateway are the browse by subject collections and database search (See: Fig-9 Agriculture and Public Health Gateway Home Page Screenshot) on the topics of:

- Public Health & Agriculture
- Public Health & Agriculture
- Crop Production
- Sustainable Agriculture
- Industrial Food Animal Production
- Agriculture Policy & Public Health
- Community & Occupational Health
- Food Safety & Labeling
- Food Systems

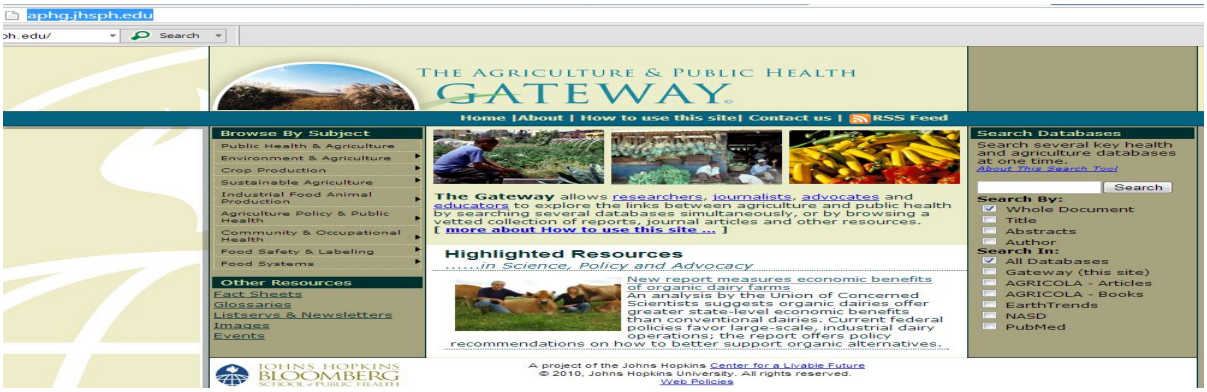

Fig-9 Agriculture and Public Health Gateway Home Page Screenshot

Search Databases

Concurrently search these key electronic libraries such as AGRICOLA - national agricultural library collection includes more than 3.3 million bibliographic items of journal articles, theses, patents, software and technical reports associated to agriculture area from 1979 to the present. PubMed - A service of the national library of medicine that comprises more than 18 million citations for biomedical articles dating to the 1950s. Includes links to full-text articles. NASD - the National Agricultural Safety Database, EarthTrends an environmental database. Other gateway resources include links to glossaries, list serves and newsletters, online photos and images, and event listings related to agriculture and public health.

4.5.10 AgNIC: A Knowledge Discovery System for Agriculture (http://www.agnic.org/)

The Agriculture Network Information Collaborative (AgNIC) is a voluntary alliance of members based on the concept of "centres' of excellence". The member institutions are dedicated to enhancing collective information and services among the members and their partners for all those seeking agricultural information over the Internet.

By joining forces to enhance impact and deliver increasing access to information and expertise, it enables partner institutions to make the most of available resources and increase impact. Collectively the Alliance harnesses more than 80 information and subject specialists, over 60 topics covered comprehensively, full-text and web-based resources, participation from five countries with collaborative contributions from many more

AgNIC facilitates and participates in partnerships and cooperation among institutions and organizations world-wide that are committed to the identification, delivery and preservation of reliable, freely-available, evaluated, digital content and quality services for agriculture, food, and natural resources information.

Through AgNIC we can search the world latest agricultural news, Upcoming Events, Events Calendar it includes Agriculture related conferences, meetings and other events. For example see below fig

2. **Fertilizer Value Chain-Supply System Management and Servicing Farmers' Needs**

Dates: Dec 02 - 06, 2013

Organizer: International Fertilizer Development Center

Country: Malaysia

City: Kuala Lumpur

Add to calendar:

Category: Economics, Business and Industry, Farms and Farming Systems, Geographical Locations, Government, Law and Regulations, Earth and Environmental Sciences, Plant Science and Plant Products, Research, Technology and Engineering

4.5.11 Food and Agriculture Organization of the UNO (http://www.fao.org/home/en/)

FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy. FAO is also a source of knowledge and information, and helps developing countries and countries in transition modernize and improve agriculture, forestry and fisheries practices, ensuring good nutrition and food security for all. The FAO Statistical

Division produces FAOSTAT, which offers free and easy access to data for 245 countries and 35 regional areas from 1961 through the most recent year available. Enhanced features include browsing and analysis of data, an advanced interactive data download, and enhanced data exchange through web services.

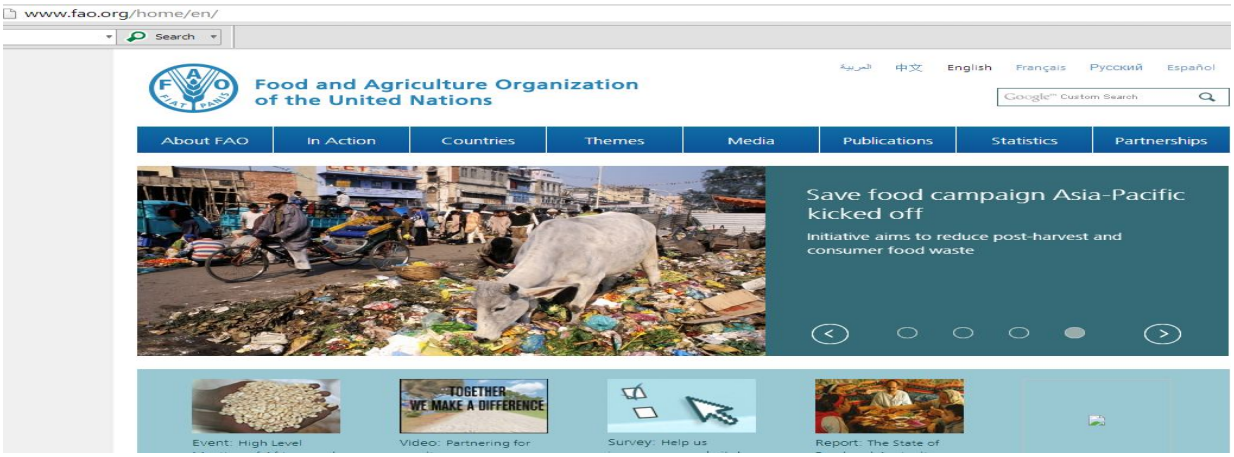

Fig-10 Food and Agriculture Organization of UNO Home Page Screenshot

4.5.12 INFOLAW: Discover the Legal Web (http://www.infolaw.co.uk/)

INFOLAW discover the legal web was established in 1991. Since inception it is focussed in the provision of forms and patterns and law publishing service area. It has been vigorous on the web since early 1995 and has widened the variety of services to cover all web-based publishing movement. It is very useful source for law businesses, company legal departments, lawyers, academics, students and a number of law publishers etc. See Fig-11 INFOLAW Home Page Screenshot.

Fig-11 INFOLAW Home Page Screenshot

4.5.13 LIBRARY GATEWAYS

Library gateways are assemblages of databases and informational websites, organized by subject that have been collected, reviewed and recommended by specialists, usually librarians. These gateway assemblies support research and reference needs by recognizing and directing to high excellence pages on the web.

Examples of Library Gateways

- Academic Information (www.academicinfo.net)
- Argus Clearinghouse (http://clearinghouse.net)
- Digital Librarian (www.digital-librarian.com)
- Librarian's Index to the Internet (http://lii.org)

4.6 SPECIALIZED DATABASES

Specialized databases are databases created by university teachers, researchers, experts, administrative agencies, business interests, and subject authorities and/or individuals who have a deep interest in, and skilled knowledge of, a particular field and have mount up information and data about it.

For e g: First Search, ProQuest, EBISCO, JOSTOR etc.

4.7 THE INVISIBLE WEB

There is a large percentage of the web information that search engine spiders may not catalogue or index. It has so-called the "Invisible Web" and includes, among other things, password secured websites, documents behind firewalls, PDF files, archived material, collaborative tools such as calculators and dictionaries, and the contents of database. Web profilers decide that the Invisible Web, which is made up of hundreds of thousands of such documents and databases, accounts for 60 to 80 per cent of existing web material. This is information probably assumed you could access by using standard search engines, but that's not at all times of the circumstance. According to www.invisibleweb.com, these resources are not usually visible to search engine spiders because they are embedded within individual web sites. Library gateways and specialty search tools are worthy sources for straight links to database information warehoused on the invisible sites.

CONCLUSION

The Internet has what it takes to transforms education at all levels. What is needed is the provision of right infrastructure to serve as the vehicle for the Internet to the colleges. Internet facilities on the many college campuses are characterized by poor or slow internet speed. This situation has the potency to limit effective use of the Internet technology for the knowledge access. As a result majority of students in the colleges are not fully harnessing the

opportunities offered by the internet facilities on their various college campuses. The educational institutions should continually review their training programmes in computer and internet user skills. This will ensure that users are updated with new techniques and opportunities that characterize the ICT world. Libraries and Computer laboratory managers must introduce time regulatory policies to restrict usage periods by students. This will ensure that more students have access to Internet services. Finally the professionals should ensure that the effective use of knowledge access tools as above discussed and moreover the professionals always update with such a knowledge access tools for use of the students.

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- Agriculture & Public Health Gateway: http://jflahiff.wordpress.com/tag/agriculture_and_public_health_gateway/ (Accessed on: 14/04/2014)