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Abstract: Since from the dawn of human society information has a vital role in the development of the society in general. We find diversified explosion in all fields such as information explosion, population explosion, technological explosion, knowledge explosion. This led to the dynamism in creation, storage, distribution, delivery and demand for information. The “24X7, any time, any place information” paradigm of the networked environment is a challenge in the Information field. Internet, World Wide Web and Open Access have brought revolutionary changes in the field of Information. In this paper we try to bring forth various web based information sources in the field of Forensic Science.

Key words: Web based information sources, Internet.

1. INTRODUCTION

In this electronic, information and technology scenario Libraries are transformed in to Information centres and there is a huge transition from printed to digital collections and e-resources. This has changed the roles and practices of traditional librarians and libraries into information professionals and information bureau, who facilitate access to various types and levels of information dissemination. The library and information professionals are well versed with the new e-information environment by procuring, organizing, accessing and disseminating various e-information sources as per requirements of the clientele. Web has a great role in providing access to diversified information sources in varied disciplines. Library and information professionals have active role to customize and optimize access to these resources.

2. INTERNET, WEB 2.0 AND LIBRARY 2.0

The origin of Internet and development of World Wide Web have revolutionized the information communication. The WWW is the most useful and powerful means of providing Internet resources combing hypertext and multimedia to provide a huge network of various resources. Web has enhanced the value of Internet as medium of communication with web servers and browsers. IT techniques are used for information processing, storage, communication, dissemination of information, automation, etc.

Web 2.0 mainly emphasizes in user generated content, data and content sharing and collaborative effort, together with use of various kinds of social software, new ways of interacting with Web-based applications, and the use of the Web as a platform for generating, re-purposing and consuming content. Eg. Wikis, Blogs Mash-ups, Peer-to-peer networking, Podcast, RSS Web services. Library 2.0 is borrowed from Web 2.0 and Business 2.0 and is the application of the technologies of web 2.0 in Libraries will result in a meaningful and substantive change in libraries, its collection, services and methods of delivery of services.

3. WEB RESOURCES TYPES AND ACCESS
WWW consists of millions of resources in diversified disciplines. These resources are identified with URL (Uniform Resource Locators), where an identified resource is available and the mechanism for retrieving it. The best-known example of a URL is the address of a web page on the World Wide Web and home directory.

There are open access web resources which are freely available on web, Subscription based web resources and "invisible web" mainly refers to the vast repository of information that search engines and directories don’t have direct access to, like databases. Unlike pages on the visible Web (that is, the Web that you can access from search engines and directories), information in databases is generally inaccessible to the software spiders and crawlers that create search engine indexes.

Access is possible to the web resources through URLs, web sites, web OPACs and search engines.

4. VARIOUS TYPES OF WEB BASED INFORMATION RESOURCES

This include Web sites, E-mail based information services, Online indexes and abstracts, Full text of documents, Usenet news, Online Directories, Online chatting, Virtual/ online conferencing, E-Journals and E-Books, List serve, Online-learning and online-courses, Subject Gateways and Portals, FAQs, Virtual Help Desks, Mailing Lists, Online- Book shops and many more.

5. NEED FOR WEB RESOURCES

Widespread proliferation of Information Technology has enabled the user community to have access to www/Internet.

User community wants to enhance their learning opportunities.

Educational Institutions enhance their competitiveness by training their manpower.

Web has enabled globalization of education and made it possible with e-learning and e-education by bringing all the learners on a single platform.

6. ADVANTAGES OF WEB RESOURCES

The advantages are International reach, speed of communication, unlimited capabilities, reduced cost, convenience, search ability and linking.

E-Books, E-Journals, E-Databases offer a solution for some of the problems faced by the libraries today. They are space saving, enhance the speed of communication, provide powerful searching tools, immediate access to desktop and provide facilities such as integrated text, hyper text links and multimedia that the printed books and journals can not offer.

7. FORENSIC SCIENCE AND WEB RESOURCES

Forensic Science historically has been identified closely with the criminal justice system, but now it plays an increasingly active role in civil litigation and in regulatory matters. Forensic Science is a unique scientific endeavour different from many conventional fields of science, which have been embraced by the court of law. It is a science devoted to using scientific methods and Procedures together with objective information which will be used to help in solving a crime. Forensic Science is an Interdisciplinary Science which embraces all branches of basic sciences.
and life sciences. Being an inter and multi disciplinary subject, it has vast web based resources some of which are presented here in tabulated form.

The easy accessibility to internet and networking facilities has necessitated the adoption of proactive and preventive forensics to prevent crimes over internet. Forensic databanks on DNA, Firearm signature, seized explosive substances; seized IEDs, seized narcotic drugs, poisonous plants, etc. will enable the law enforcement agencies in the speedy disposal of cases as the desired information is readily available through different forensic data banks.

Here we have gathered the resources on the web from Forensic Science related websites.

7.1. OPEN DIRECTORY PROJECT

Now a days the web continues to grow at staggering rates. Automated search engines are increasingly unable to turn up useful results to search queries. Instead of fighting the explosive growth of information, the Open Directory provides the means for the Internet to organize itself. The Open Directory is the most widely distributed data base of Web content classified by humans. It is constructed and maintained by a vast, global community of volunteer editors. 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, culling out the bad and useless and keeping only the best content.

Its editorial standards body of net-citizens provide the collective brain behind resource discovery on the Web. The Open Directory powers the core directory services for the Web’s largest and most popular search engines and portals, including Netscape Search, AOL Search, Google, Lycos, HotBot, DirectHit, and hundreds of others.

OPEN DIRECTORY SITES:

| Forensic Science Service | http://www.forensic.gov.uk |
| Advance Forensic Science Services | http://www.afss.co.il/index.asp?lang=EN |
| A Dictionary for Science | http://www.adfs.state.al.us/ |
| Virginia Department of Forensic Science | http://www.nifs.com.au |
| Forensic Science | http://www.science.auckland.ac.nz/uoa/s |
7. II. GLOBALLY AVAILABLE FORENSIC DATABASES

There are numerous databases available on the web which is very useful to Forensic Science experts and also to people from other subjects, one of which base is MEDLINE. It is a premier bibliographic database of National Library of Medicine covering various fields like Medicine, Nursing, and Dentistry etc. Citations for MEDLARNE are created by the NLM, International MEDLARS partners, Co-operating professional organizations. Every week MEDLINE records are incorporated into Pub Med (http://www.ncbi.nlm.gov/pubmed/), which will be assigned a Pub Med unique identifier.
7.III. WEBSITES OF SPECIALISED DISCIPLINES IN FORENSIC SCIENCE

Here we present the websites for global societies, associations and government organizations which cover multiple specialties. For specialty specific organizations, refer to each specialty’s section in this webliography. The subject disciplines include Forensic Anthropology, Forensic Botany, Forensic Chemistry and Toxicology, Criminalistics, Ballistics, Forensic Entomology, Forensic DNA analysis, Forensic Dentistry, Questioned document examination etc.

<table>
<thead>
<tr>
<th>Foreign Organizations</th>
<th>Web Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Academy of Forensic Sciences</td>
<td><a href="http://www.aafs.org/">http://www.aafs.org/</a></td>
</tr>
<tr>
<td>American Society of Crime Laboratory Directors</td>
<td><a href="http://www.asclrd.org/">http://www.asclrd.org/</a></td>
</tr>
<tr>
<td>Armed Forces Institute of Pathology (AFIP)</td>
<td><a href="http://www.afip.org/">http://www.afip.org/</a></td>
</tr>
<tr>
<td>Canadian Society of Forensic Science</td>
<td><a href="http://www.csfs.ca/">http://www.csfs.ca/</a></td>
</tr>
<tr>
<td>Federal Bureau of Investigation (FBI)</td>
<td><a href="http://www.fbi.gov/">http://www.fbi.gov/</a></td>
</tr>
<tr>
<td>International Association for Palynology Database</td>
<td><a href="http://www.theiai.org/">http://www.theiai.org/</a></td>
</tr>
<tr>
<td>Identification</td>
<td><a href="http://www.ojp.usdoj.gov/nij/">http://www.ojp.usdoj.gov/nij/</a></td>
</tr>
<tr>
<td>National Institute of Justice (NIJ)</td>
<td><a href="http://www.criminalistics.com/">http://www.criminalistics.com/</a></td>
</tr>
<tr>
<td>American Board of Criminalistics (ABC)</td>
<td><a href="http://www.anzfs.org.au/">http://www.anzfs.org.au/</a></td>
</tr>
<tr>
<td>American board of Forensic Anthropology</td>
<td><a href="http://www.csuchico.edu/anth">http://www.csuchico.edu/anth</a></td>
</tr>
<tr>
<td>Forensic Web Sites</td>
<td><a href="http://medstat.med.utah.edu/">http://medstat.med.utah.edu/</a></td>
</tr>
<tr>
<td>Forensic Anthro.com</td>
<td><a href="http://www.forensicanthro.com/">http://www.forensicanthro.com/</a></td>
</tr>
<tr>
<td>International Association for Craniofacial Identification</td>
<td><a href="http://www.forensicartist.com/IACI/index.html">http://www.forensicartist.com/IACI/index.html</a></td>
</tr>
<tr>
<td>Online skeleton</td>
<td><a href="http://www.channel4.com/history/microsites/B/bodies/indexx1.html">http://www.channel4.com/history/microsites/B/bodies/indexx1.html</a></td>
</tr>
<tr>
<td>Forensic Botany</td>
<td><a href="http://myweb.dal.ca/jvandomm/forensicbotany">http://myweb.dal.ca/jvandomm/forensicbotany</a></td>
</tr>
<tr>
<td>Forensic Botany</td>
<td><a href="http://www.botany.org/PlantTalkingpoints/crime.php">http://www.botany.org/PlantTalkingpoints/crime.php</a></td>
</tr>
<tr>
<td>Crime scene botanicals- Forensic botany (Botanical society of America)</td>
<td><a href="http://www.crimeandclues.com/pollen.htm">http://www.crimeandclues.com/pollen.htm</a></td>
</tr>
<tr>
<td>Forensic Paleontology: Anew way to catch crooks</td>
<td><a href="http://www.leeds.ac.uk/acb/annals/Webwise/Webwise97-1.html">http://www.leeds.ac.uk/acb/annals/Webwise/Webwise97-1.html</a></td>
</tr>
<tr>
<td>Forensic Toxicologists (TIAFT)</td>
<td><a href="http://www.softer-tox.org/">http://www.softer-tox.org/</a></td>
</tr>
<tr>
<td>Crime Scene Investigation &amp; Criminalistic Web sites</td>
<td><a href="http://chemfinder.cambridgesoft.com/">http://chemfinder.cambridgesoft.com/</a></td>
</tr>
<tr>
<td>Bloodstain Pattern Analysis Tutorial</td>
<td><a href="http://www.bloodspatter.com/BPA1Tutorial.htm">http://www.bloodspatter.com/BPA1Tutorial.htm</a></td>
</tr>
<tr>
<td>Footwear &amp; Tire Track Impression</td>
<td><a href="http://members.aol.com/varfe/e/mastssite/index.html">http://members.aol.com/varfe/e/mastssite/index.html</a></td>
</tr>
<tr>
<td>Forensic DNA WebSites</td>
<td>MITOMAP: A Human Mitochondrial Genome Database</td>
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<tr>
<td>Mitochondrial DNA Concordance</td>
<td>Mitochondrial DNA Concordance</td>
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<tr>
<td>Mitochondrial DNA Analysis in the FBI Laboratory</td>
<td>Mitochondrial DNA Analysis in the FBI Laboratory</td>
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<tr>
<td>STRBase</td>
<td>STRBase</td>
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<tr>
<td>Forensic Mathematics</td>
<td>Forensic Mathematics</td>
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<tr>
<td>DNA Technology in Forensic Science</td>
<td>DNA Technology in Forensic Science</td>
</tr>
<tr>
<td>Forensic DNA</td>
<td>American Board of Forensic Entomology (ABFE)</td>
</tr>
<tr>
<td>Ethics in Forensic Science</td>
<td>Ethics in Science</td>
</tr>
<tr>
<td>Explosives</td>
<td>International Association of Bomb Technicians and Investigators (IABTI)</td>
</tr>
<tr>
<td>Firearms, Tool Marks &amp; Ballistics</td>
<td>Association of Firearm and Tool Mark Examiners (AFTE)</td>
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<tr>
<td>firearmsID.com</td>
<td>firearmsID.com</td>
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<tr>
<td>Firearms Tutorial</td>
<td>Firearms Tutorial</td>
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</tbody>
</table>
7. IV. INDEXED E-JOURNALS IN FORENSIC SCIENCE (Abstracts and Full text)

There is no one index to the forensic sciences literature making finding where a journal is indexed often a challenge. Several key forensic science journals are only indexed in one index, only on the publisher’s web site, or are selectively indexed by multiple indexes (e.g., in the journal *Science and Justice*, a publication of The Forensic Science Society, PubMed indexes biological related articles -- such as DNA analysis, and Web of Science indexes non-biologically related articles -- such as firearms topics).

| Canadian Society of Forensic Science Journal | http://www.csfs.ca/csfs_journal.asp |
| Identification Canada | http://www.cis-sci.ca/Content/index.htm |
7. V. OPEN ACCESS E-JOURNALS & E-BOOKS IN FORENSIC SCIENCE

Many forensic science related journals are published by associations; therefore they have been slow to appear full text on the Web or are only available full text online to members. Below are some publications that are available free to all.


7. VI. FORENSIC SCIENCE COURSES OFFERED BY VARIOUS INSTITUTIONS IN INDIA

Many Universities offer Bachelors and Master courses in Forensic Science in India but few offer Research facilities.

| Allahabad Agriculture Institute | www.aaidu.org/default.asp |
| Amity Institute of Behavioural Health and Applied Sciences | www.amity.edu/aibhas/prog.asp |
| Bundelkhand University, Jhansi | www.bujhansi.org/ |
| Dr Harisingh Gour University, Sagar | www.sagar.nic.in/ |
| Freedom of Information Act (FOIA) Electronic Reading Room | http://foia.fbi.gov/room.htm |
7. VII. FORENSIC LABORATORIES & ORGANISATIONS IN INDIA

There are Forensic Laboratories in all the states in India. All these laboratories are governed by Directorate of Forensic Science. Here we present webliography of few laboratories and organizations.

| Directorate of Forensic Science, Ministry of Home Affairs | http://dfs.gov.in/ |
| Bureau of Police Research and Development | http://bprd.nic.in/ |
| Finger Print bureau - CID, West Bengal | http://cidwestbengal.gov.in/specialunit |
| Department of Explosives | www.explosives.nic.in |
| Central Forensic Science Laboratory, CBI | www.cbi.gov.in/cfsl/about.htm |
| National Crime Record Bureau | http://ncrb.nic.in/cfpb.htm |
| The A.P.State Forensic Science Laboratory | www.apfsl.org/ |
| Haryana Forensic Science Laboratory | http://fslharyana.nic.in/ |
| Uttar Pradesh Forensic Science Laboratory | www.uppolice.up.nic.in/forensic.htm |
| Madhya Pradesh Forensic Science Laboratory | http://www.mppolice.gov.in/dynamic/branch |
| Himachal Pradesh Forensic Science Laboratory | http://himachal.nic.in/home/forensic organización.htm |
| Tamilnadu State Forensic Science Department | http://www.tn.gov.in/tamilforensic |
| National Bureau of Investigation | www.nbiindia.com/index.htm |

8. CONCLUSION

The World Wide Web is highly useful in getting precious information of various subject fields including images and videos that are shared over the Internet. This has an added advantage over any other communication media because real time information can be gathered which consumes less time in accessing to the new events that are happening around the world. Access to the Web is simple, but handling enormous quantity of information on part of a librarian is really a tough job. So, the primary requisite on part of librarian is to organize the information. Looking for a specific piece of information on the internet is quite like searching for a needle in a hay stack. With thousands of sites out there how do the professional know which site contains the information user is looking for. In knowledge based society library 2.0 is a new paradigm which is user-centered change. In this paper an attempt has been made to give a glimpse of various Web Resources that are generated in the area of Forensic Science for dissemination of information.
World Wide Web has made Internet a paradigm in global communication and information flood is collapsing all boundaries, assembling together the whole user community under one roof.

9. REFERENCES


