EVALUATION OF INTERNET RESOURCES:
A REVIEW OF SELECTED LITERATURE

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ABSTRACT

In the Internet age, most of information is available on the Internet in the different formats which known as "Internet resources" and people use Internet information for their different purposes but it is very essential for every Internet user to evaluate the retrieved Internet resources before making their uses to accomplish the tasks. This paper presents a review of selected literature found on evaluation of Internet resources available in different format in LIS domain with the following objectivies (i) To know the literature available on the need of evaluation of Internet resources; (ii) To identify the availability of literature on evaluating Internet resources; (iii) To examine the various criteria suggested for evaluating different types Internet resources by authors. This study will assist to users in framing the evaluation criteria for resources exist in various formats on the Internet.

Keywords: Information Resources; Internet; Internet Network; Information Resources Evaluation; Library; Information Science; LIS.

1 INTRODUCTION

Advent of Internet and emerging the new formats of online information, Internet resources have become a major source of information that used for spreading information in manifold formats through Internet technologies in maximum time in online mode. Eventually many Internet resources in different formats like websites, blogs, newsletter, electronic journals, and electronic books and so on have been developed and available on the Internet. The majority of information seekers rely on Internet resources to accomplish their tasks. But finding quality and authorize Internet resources from the Internet is a very challenging task for any information user. Even though, user does not know that information imparting through any Internet resources are whether true or not as anyone who has computer savvy can put any information on the Internet, there is no filter works between us and Internet,

information available on Internet not encompass through any standards/benchmarks prior to publish on Internet for public use. It is however very necessary for every user to check and evaluate the Internet information prior to use for any purpose.

2 METHODOLOGY

To collect the literature on evaluation of Internet resource in Library Science and Information Science domain, a search is conducted by using search term "Internet resource evaluation" through different databases such as: Library, Information Science & Technology Abstracts (LISTA), Library and Information Science Abstracts (LISA), Education Resources Information Center (ERICH), H. W. Wilson and Emerald. Google and Google Scholar search engine also used for retrieving and collecting the relevant literature on evaluation of Internet resources on Library Science and Information Science. Review conducted on selected literature found on the subject through above approaches on three areas such as: 'need of evaluation Internet resources'; 'librarian concern to evaluation resources'; and 'criteria for evaluating different Internet resources'.

3 NEED OF EVALUATION OF INTERNET RESOURCES

Too much of information is available on Internet but there is no uniform way by which reliability and authenticity of Internet resources can be judged. It is important to remember that anyone can publish on the Internet and of course it is easier to find and access the published information on the Internet. This means that the quality of the information one finds on the net must be evaluated very carefully. For a journal article to be published in traditional media, it usually goes through some peer review before it is accepted for publication. With a book one can judge quality by the reputation of the publisher, author, series and so on. However, the flood of raw information on the Internet has not been filtered by peer review or the collaborative efforts of the traditional publishing industry. In addition to the need for better browser software, it is required to develop skills and procedures to select and present

information on the Internet. Notess (1998) considers that major problem involved in evaluating information on the Internet is that often search engines link to ephemeral pages. These documents often simply move, vanish, or undergo changes after the database was completed. It is important to note that most databases are not updated daily.

Kovacs *et al*. (1994) stressed the need for evaluation of information on the Internet and advised not to believe everything that is found but to find its author's background and abilities. Kovacs (1999) used the terms good stuff and poor stuff. Good stuff to describe the quality of information on the Internet. Good stuff is any information that is relevant to the information needs of the client, and meets basic quality-of-information standards. December (1994) asserted that even the best web spiders would not be effective if the Internet continues to be flooded with poor quality, redundant, and incorrect information. King (1997) asserted that no pre-evaluation can be assumed for Internet resources and there is always a need for evaluating such resources. Since end-user searching is here to stay, it is necessary to teach researchers traditional evaluation techniques in a way that would make them useful and relevant to virtual media.

Brandt (1996) evaluated the information found through various search engines (i.e. Yahoo, Lycos and Magellan) and pointed out that the web search engines do not prioritize resources on the basis of objectivity and subjectivity of information needed by the user. He advocated for finding answers to questions such as: Is it moderated or not? Are there affiliations or biographic information of authors? How does it compare to other sources? Are there other online works by the author? Are there online reviews assessing the scope and purpose? etc.

Fidel *et al*. (1999) visualized the potential of the World Wide Web as a tool for information gathering and learning is enormous, and much of it has not been envisioned as yet. However, December (1994) warned that without tools and methodologies for gathering, evaluating, managing, and presenting information, the Web's potential as a universe of knowledge could be lost.

Fritch and Cromwell (2001) asserted that "[…] information on the Internet can be published by almost anyone", that there is "[…] virtually no filtering of information

on the Internet" and that "[…] filters of information typically present in a print environment (publishing houses, editors, reviewers, librarians/selectors) are often not present on the Internet. Most of resources on Internet have lack of its reliability; currency and authority that do not make users' conform about authenticity of Internet resources. Anyone can publish almost anything on the Internet, often bypassing the quality assurance benefits offered by traditional publishing (BRANDT, 1996). Traditional publishing benefits include issuance by an authoritative source, editorial or peer review, and evaluation by experts. There is little or no editorial review of material and no official agency, specialist, or review process for Internet subject matter (SCHROCK, 1996).

4 LIBRARIANS' CONCERN TO EVALUATE RESOURCES

Grimes and Boening (2001) interviewed students and faculty, finding dismay among instructors about the quality of the Web sources cited by students and misplaced confidence among students in their ability to find appropriate Websites for their papers. They found that in some cases instructors were not familiar enough with the Internet to guide their students in evaluating Websites, leaving even more responsibility on librarians' shoulders.

Hahn (1997) stressed on the need to teach students on how to evaluate Internet resource. Scholz-Crane (1998) examined the evaluation practices of two groups of college composition students. One group used a checklist provided by the instructor, and the other group developed its own criteria to evaluate two Web documents. Comparing criteria from both groups to standard evaluation criteria, she found that a checklist alone was insufficient to help students evaluate Websites and, further, that students needed help in identifying components or elements of Web documents. Demas (1995) feels that some faculty, staff and students genuinely enjoy navigate the net and serendipitously discovering useful information resources. Therefore, Internet users should apply critical thinking and evaluation parameters prior to use Internet resources for their various purposes.

In order to resolve this problem, many library and information centers are taking initiatives to develop some tutorials/ guidelines to assess quality of Internet resources and are assisting their patrons in making effective use of the Internet resources.

Baldwin (2000) in her study reflected back to the early 1995 and recounted the historical event that a group of librarian from the University of Michigan, School of Information developed a virtual library, called the Internet Public Library in response to the proliferation of unorganized resources on the World Wide Web. She commented on this event as a breakthrough team response to rapidly developing changes in the information world.

Kirk (1996) UC Berkeley Library produced an eight-point evaluation checklist through 'Questions to Ask' & 'Strategies for Getting the Answers' to webpages like, 'What can the URL tell you?', 'Who wrote the page?', 'Is he/ she, or the authoring institution a qualified authority?', 'Is it dated, current, timely?', 'Is information cited authentic?', 'Does the page have overall integrity and reliability as a source?', 'What's the bias?', 'Could the page or site be ironic, like a satire or a spoof?', and 'If you have questions or reservations, how can you satisfy them?'.

The Cornell University Library provided some guidelines to critically analyzed information source situated on Internet: author, date of publication, edition or revision, publisher, title of journal, intended audience, objective reasoning, coverage writing style and evaluative reviews. The University British Columbia (UBC) library gives six criteria to assess the Internet resources which include author or source, accuracy, currency, objectivity, coverage, and purpose. The University of Queensland Library produced quality indicators to evaluate Internet resources such as author(s), credibility/responsibility, date, type of information, scope, purpose, writing style, language used and bibliography along with their respective questions a 'How to Guide' heading. The *Greenfield Medical Library* (BIOME) provides the following guidelines to evaluate Internet resource: follow any links to find out as much as you can about a resource; analyze the URL; examine the information within the resource; consider the accessibility, design and layout, and ease of use of the source; obtain any additional information; and compare the resource to other similar

materials. This checklist included criteria for evaluating Internet resources like authority, affiliation, currency, purpose, audience, and conclusion. It also hold interesting point 'Compared to why?' and discussed of how website documents compare, relate, or contrast with other information source, print and non-print.

Hinchliffe (2004) explored an important discussion to evaluate Internet information through three questions "Is the resource or information likely to be found on the Internet? Where is the resource or information located on the Internet?, and Is the resource or information that exists accurate and reliable?"

King (1997) addressed five major "considerations" which are "authority, agenda, scope, currency and accuracy". The author addressed on " authority" by suggesting the website should be " an internationally known not-for-profit organization or expert" and further commented on " agenda" that people need to ask if the sponsor is selling something or advocating an "idea or philosophy"? King emphasized that end-users must be educated to undertake their own evaluation of Web resources because, unlike material in the collection, there has been no preliminary education by a librarian.

Since including Internet resources is important to libraries' websites, literature have long been trying to establish selection criteria. Sowards (2005) concluded from published criteria for web-based ready reference resources that the combination of traditional principles of library collection development and new principles derived from web page design formed the current widely acknowledged criteria for Internet resources. Four factors gathered by Sowards (2005) suggested include: Quality, depth and usefulness of content, currency of content, and Uniqueness of content and Authority of producer.

Six websites evaluation standards proposed by Collins (1996) have gained considerable attention in this field, which are "[…] content, authority, currency organization, search engine and accessibility". Similarly, Lubans (1999) provided a list of what students indicated in a library survey in response to a question on how they evaluate an Internet site. The list is arranged in descending order of importance. The students evaluated the site to determine whether it: is based on a respected print source; was referred to sites by peers or teachers; ownership is explicit; displays a

recent date; URL includes .org. or .edu.; has links to other sites; includes e-mail link to owner; looks professional; and has a lot of pictures.

Gurney (1995) investigated a new set of measurements for information evaluation through four characteristics: accessibility, authority, interactivity, and conviviality. McMurdo (1998) advocated evaluating the quality of Internet related documents, because publishing was open to anyone with computer and a connection to the Internet. The ease of publishing has re-emphasized the need for critically evaluating the quality of published information. Librarians and information science professionals have spearheaded the endeavor to develop criteria for evaluating Internet resources. Tillman (2001) advocated that librarians apply the traditional evaluative techniques that are used for print sources to Internet related documents as well.

One can see that most of the work is pure common sense from a librarian standpoint. There is a need to use the similar evaluative skills in looking for information on the Internet that would be looked in a book, a paper index, or on an online database or any other source of information. The content of the Internet is more diverse because of the availability of information in various formats.

5 CRITERIA FOR EVALUATING OF DIFFERENT INTERNET RESOURCES

It is common understanding that when evaluation of Internet resources is concerned it is relate with the evaluation of websites and much of the discussion surrounds on evaluation of website. There are many studies that discuss evaluation of websites, but evaluation of other Internet resources like blogs, webliographies, webcasts/podcasts and training packages, the number of evaluation studies are small or is non-existent. Clyde (1998) presented a guide for teachers and teacher-librarians on the evaluation and selection of Internet computer network resources. The following Frame 1 covers the studies on evaluation criteria of different Internet resources.

Frame 1: Criteria to evaluate different types of Internet resources.

S.N.	Type of Internet Resources	Studies Conducted by Authors
1.	Websites	Clyde (2004), Stover and Zink (1996), King (1998), Novljan and Zumer (2004), Tillotson (2002), Chao (2002), Sapa (2005), Osorio (2001), McCready (1997), Xue (2004), Pacios (2003), Cohen and Still (1999), Schamber (1991), Zhang *et al.* (2000).
2.	Blogs	Blood (2002), Clyde (2004), Carver (2003), Fichter (2003), Laing *et al.* (2005), Cooke (2006), Herring *et al.* (2004), Vegel and Goans (2005), Reichardt and Harder (2005), Blair and Level (2008).
3.	Bibliographies	Gupta and Jain (2009), Young and Ackerson (1995), Konings (1993).
4.	Training Packages/Modules	Willis (1993), KirkPatrick (1976), Wright (2003), Dringus and Cohen (2005).
5.	Podcast/Webcast	Kaushik (2010), Gorra, Ross and Finlay (2009), Austria (2007).
6.	Databases	Matsumura (2004), LaBorie and Halperin (1981), Voigt and Brüggemann (1993), Chu and Ajiferuke (1993), Parker (2005).
7.	E-books	Anuradha (2006), Rao (2003), Connaway (2001), Kang *et al.* (2009).
8.	Journals/ Newsletters	López-Ornelas *et al.* (2005).

An examination of the papers in the Frame 1 shows that there is a considerable degree of overlap as for the criteria identified for evaluation of the various Internet resources is concerned. The criteria discussed for the different types of resources are discussed in the following sections.

5.1 Evaluating Websites

There are several criteria to evaluate websites. Websites could be of an organization, professional association, company, university, library or individual and needs to be evaluated in regard to its structure, content and uses. There could be no uniform criteria to evaluate such websites, as the websites have varied nature, purpose and approach. In Frame 1, various studies have been referred which deal with evaluation studies adopting numerous criterion.

Clyde (2004) performed a content analysis of homepages of 50 (fifty) public and school libraries. He further pointed out that content varied by website purpose and users' perspective but certain criteria/ points should be incorporated in library website regardless to purpose and audience.

Stover and Zink (1996) compared the design of 40 (forty) higher education library homepages to measure how well the libraries have incorporated emerging guidelines for webpage design and organization. The authors concluded that many of the homepages were badly designed and neglected fundamental principles of information organization. In addition, Stover and Zink provided a useful appendix on points to consider when constructing a homepage. These points include the need to plan the layout and organization of the website; how to use links and graphics; what to include in the content; and ways to ensure the credibility of, and accountability for, the information on the webpage.

King (1998) compared the formatting features of 120 (one hundred twenty) ARL websites. Cohen and Still (1999) examined the structure and purpose of 100 (one hundred) academic library websites, noting that library websites serve four purposes: information, reference, research, and instruction.

Novljan and Zumer (2004) assessed the content and quality of 28 (twenty eighth) Slovenian public library webpages were studied in 2001 and 2002. The research was performed by students of Department of Library and Information Science and Book Studies (University of Ljubljana). In that way, student's ability of webpage evaluation was also tested.

Tillotson (2002) tested students' understanding of the need for website evaluation and their ability to articulate criteria for evaluation by using a questionnaire distributed to participants in the library instruction programmes at 2 (two) Canadian universities, through which he revealed that students view web sources somewhat critically and are aware of standard website evaluation criteria.

Chao (2002) tested the quality of academic libraries on the World Wide Web (Libweb) by an instrument developed on basis of an authoritative criteria used for traditional print resources and Internet/web resources by which a set of 68 (sixty eighth) essential indicators was generated and later reorganized and reduced to 16

(sixteen) criteria through factor analysis. After a survey of library experts, the instrument's reliability was verified by analysis of variance. He further suggested 2 (two) instrument forms for prospective users to evaluate academic Libweb quality and to construct and maintain a good site.

Sapa (2005) compared the contents and usability of 25 (twenty fifth) Polish and 25 (twenty fifth) American academic library websites and presents conclusions regarding the basic functions they perform though a detailed questionnaire. In total, 275 (two hundred and seventy fifth) different elements of academic library websites were evaluated and analyzed, including 237 (two hundred and thirty seventh) elements regarding their contents and 38 (thirty eighth) regarding their usability.

Osorio (2001) examined design and content (especially design characteristics and hypertext links) of homepages of 45 (forty five) websites of Science Engineering libraries of universities in USA and Canada.

McCready's (1997) study offers a variety of suggestions toward the implementation of a library-related website and focused on the need for a library website, the personnel required to develop the website, evaluating its usage, and organizing and structuring it. Xue (2004) used user statistics to assess the Government Publications Library at the University of Colorado, USA. She examined the library website's organization (including access, search ability, and structure) of electronic government information in subject category format and noted, among other observations, that the website attracted a large volume of traffic partly because of its comprehensive coverage of federal and state government, foreign country and international organizations; detailed classification of subjects; and detailed annotation for each link. She proceeded to conclude that usage statistics are useful for monitoring search engine ranking, improving display, structure and search ability.

Pacios (2003) sought to examine management related documents posted on Spanish libraries' websites by analyzing the structure and contents of the webpages and other related aspects. He further observed that the "[…] information is scanty in many cases often resulting from a lack of a suitable information policy for determining what is published on the web – although libraries are beginning to evaluate the quality of their services".

Cohen and Still (1999) compared the library homepages of research universities with those of two-year colleges in order to find contrasting differences in three areas: content, functionality and structure. King (1998) examined the homepages of libraries in the Association for Research Libraries (ARL) to determine webpage front-end design. In one of the earlier studies of this nature, Stover and Zink (1996) created a ten-design elements matrix to review the homepage of 40 (forty) academic library websites.

Schamber (1991) conducted a study that examined criteria mentioned by occupational users of weather information and discussed how they evaluated weather information presented by sources.

Zhang *et al.* (2000) described their study of evaluating information quality of homepages for approximately 200 (two hundred) selected Fortune 500 companies across 10 (ten) industries. They developed an evaluation instrument, and performed an explorative analysis between types of homepages and user perceptions. The findings of the study revealed that differences exist among certain types of homepages with respect to user's perceptions of presentation of information, navigation, and quality.

5.2 Evaluating Online Training Package/Modules

In the Internet era, many online tutorials, training and courses are available on various subjects for diverse purposes. These programmes tend to develop on specific theme, topics and subject for general as well as specific community that help in learning. Evaluation of such programmes is essential to catch the reflections for which these programmes meant for. There is no way out to evaluate student learning and librarians always struggled a lot with these issue before web-based instruction.

Many authors suggested that evaluation of online tutorials/courses/training packages could be conducted by using and applying similar criteria for web resources/ websites but further suggested some additional critical points should be included with them such as feedback and exercise. In addition, some checklists

present on Internet assist to accomplish evaluation of online tutorials/training packages/courses.

Online course evaluation checklist provides points such as general course information, course design, instructional design and course delivery promote interaction, appropriate use of technology, instructor support with students, instructor content knowledge and impact on learning.

Another checklist outlined the 10 (ten) points for evaluating online courses along with their respective instructions, facility to select most appropriate choice and comments for each point. The 10 (ten) points include technology, content, media, design, pedagogy, interactions, assignments, assessment, access, and support.

Willis (1993) highlighted the use of technology, quantity and quality of student interaction with instructors and classmates, class formats, and support services. KirkPatrick (1976) underlined the importance of reaction, learning, transfer, and results. An ACRL Committee in a project called *ACRL/CNI* Internet Education *Project* drew attention to accuracy, coverage, content, instruction technology used, web design, and the material itself that enhanced the learning experience. Wright (2003) stressed on the information about course, accessibility, organization of course, language, layout, goals and objectivities, course content, instructions or learning strategies for practice and transfer, learning resources and evaluation. Dringus and Cohen (2005) underscored visibility, functionality, aesthetics, feedback and help, error prevention, memorability, course management, interactivity, flexibility, consistency, efficiency, reducing redundancy, and accessibility as important aspects to be considered for evaluating training package/module.

5.3 Evaluating Journals/Newsletters

López-Ornelas *et al.* (2005) and others evaluated electronic journals quality by using two phase analysis, first to design the evaluation instrument, and the second, the validation and restructuring of evaluation instrument. In the first phase, the criteria framework and the indicators for assessment for academic electronic journals were selected and defined. According to this framework, several questions

were designed to measure each indicator and, as a result, an instrument to evaluate academic electronic journals was built. In second phase, evaluation instrument was validated by 16 (sixteen) editors of electronic journals of different countries and different areas of knowledge that were considered as judges to evaluate clarity, importance, relevance and coverage of each question, indicator and criteria (LÓPEZ-ORNELAS *et al.*, 2005).

5.4 Evaluating Databases

Matsumura (2004) proposed a set of 12 (twelve) criteria and details about each criteria such as author/creator, subtitle/keywords, summary, responsible person/organization, person/organization with supplementary roles, data of creation/update, source, spatial/time characteristics, rights, accessibility and usefulness to evaluate electronic database and its validity verified by a questionnaire survey method.

LaBorie and Halperin (1981) described a study conducted at the Drexel University Library assessing the ability of the ERIC and LISA databases to support the research needs of library science students. According to Voigt and Brüggemann (1993), large number and big variety of online databases in the field of environmental sciences and chemistry underlines the need for a comparative evaluation approach. The authors presented 12 (twelve) evaluation criteria and a 6 (six) number scoring system was applied the criteria. Furthermore a comparative evaluation approach, the so-called Hasse-Diagram-Technique was presented for 19 (nineteenth) bibliographic online databases using the different criteria. In this approach maximal ('good' databases) and minimal ('bad' databases) could be identified. Using the Hasse-Diagram-Technique changes in the database content from 1995 to 1998 applied on the 19 (nineteenth) databases could be visualized.

Chu and Ajiferuke (1993) compared the quality of indexing in Library Science and Information Science databases: Library Literature (LL), LISA, and Information Science Abstracts (ISA). The analysis shows that LISA has the best quality of

indexing out of the three databases. Parker (2005) evaluated 4 (four) databases used by fisheries scientists and found up to 70% overlap for any topic.

5.5 Evaluating E-Books

Anuradha (2006) considers an e-book to consist of both digital content as well as physical devices, such as handheld e-book readers. Rao (2003) defined e-books to be comprised of texts published in electronic form as well as physical books converted into digital form, and also books in computer file format, or an electronic file of words and images of monographic character, all of which can be displayed on a desktop, notebook computer, or portable device, including dedicated e-book readers. Finally, an "e-book reader" is defined as a combination of software and any type of device that is able to display an e-book.

Connaway (2001) identified 11 (eleven) elements that are important for academic libraries to use in evaluating electronic books, including: content; acquisition and collection development; software and hardware standards and protocols; digital rights management; access; archiving; privacy; market and pricing; enhancements and ideal features.

Kang *et al*. (2009) evaluated the usability of electronic books (E-books) through an experiment that was designed to compare the differences between reading an E-book and a conventional book (C-book) with objective measures. Twenty junior college students, ages sixteen to eighteen, participated in the study. Response measures included reading performance and critical flicker fusion (CFF).

5.6 Evaluating Blogs/Weblogs

There are many guidelines in existence on creating, maintaining and exploring information regarding history and tools for the blogs. Blood (2002) imparts information regarding creating and maintaining history and resources for blogging. Blood's book is most appreciated for the definitions of its contents and it is greatly clarifying why blogs are different from online journals and more than online diaries.

Many authors estimated blogs on the basis of its contents and features such as Clyde (2004) who analyzed 55 (fifty fifth) blogs in the library and information science field and categorized them by its countries of origin, types of library involved in blogging activities, blog software used, statement of blogs' aims and purposes, selected content features and update frequency of library blogs.

Carver (2003) states that libraries should use blog as "adding a blog to your library's website can add currency and freshness. It can also encourage patrons' community where everyone shares knowledge".

Fichter (2003) urged to use blogs in libraries as marketing tool to promote and explore library services to its ultimate users. Laing et al (2005) provides history of blogs and argues that blogs are professional information sources for libraries and suggests criteria for determining the value of blogs. Cooke (2006) defined RSS[1] feeds and their usefulness of medical news feeds in a health science environment.

Some studies are based on genre analysis of weblogs that are adopted through website genre analysis parameters. Herring *et al.* (2004) analyzed 203 (two hundred and third) randomly – selected weblogs by various genre and coding like characteristics of blog author, blog purpose, structure of blog and frequency of blog update.

It is must be noted that very few studies are presented to support on subject specific blogs, Georgia State University blogging programme initiatives exploring information via a news/event blog and a science news blog Vegel and Goans (2005) added.

Reichardt and Harder (2005) have suggested that academic libraries should develop subject specific blogs with contents to meet and fulfill the information needs of the users. They further added that the coverage of blogs is customizing towards subject general to subject- specific.

The Blogger Toolkit evaluating LIS blogs provides similar criteria to evaluate the blogs in library and information science field such as authority, purpose, currency, objectively/ bias, depth of the material.

Blair and Level (2008) published an article through which they seek to outline the creation of a subject – based blog at Colorado State University Libraries (CSUL)

named as The Biology, Agriculture & Natural Resources (BANR) and suggest unique evaluation techniques for library blog through online survey, web tracking software, RSS feed tracking and the use of blog search engine methods.

5.7 Evaluating of Podcasts

A podcast is an audio file made available on Internet. It is a combination of two words broadcasting (the term used for the transmission of television and radio) and iPod (a well-known portable media MP3 player developed by Apple computer Inc.). In the podcasting technology, the audio is syndicated, through RSS (Really Simple Syndication) feed that was adopted from blog community.

Kaushik (2010) examines the uses of podcasting technology in libraries and identifies the various podcasting activities taking place in LIS sector. The study revealed that podcasting is spreading rapidly in LIS field and the technology can be used to promote library services and products, library instructions and contents to the users.

Evaluation studies on podcasting are very few. Gorra, Ross and Finlay (2009) described and evaluated 2 (two) contrasting case studies in different areas at Leeds Metropolitan University in which audio and video podcasts were produced by students and staff. Empirical data collections from both case studies in the form of student and staff interviews helped to evaluate approaches to podcasting. The lessons learnt, including practical considerations of producing podcasts are shared by the authors.

Austria (2007) surveyed eleven library graduate school students and one library graduate professor over a 4 (four) week period. The respondents listened to either *Nature Podcast* or *Science Talk* and filled out a 2 (two) part questionnaire. Analysis of the data demonstrated that respondents experienced difficulty in assessing audience, bias/point of view, scope/coverage, and accuracy in podcasts using print evaluation criteria.

5.8 Evaluating Webliographies/Bibliographies

The Bibliographies and its web version, the webliographies are tertiary information sources that provide comprehensive bibliographic information that can lead a user to the source of information. Traditionally compiling bibliographies has been an arduous task but with the advent of databases, it has become easier to compile bibliographies, although it requires judiciousness in selecting sources to be included in the bibliography or webliography.

In the area of library and information services marketing, there are very few bibliographies/ webliographies available. Gupta and Jain (2009) have compiled a bibliography on 'marketing library and information services' of literature published in India and by Indian authors abroad. Young and Ackerson (1995) reviewed a study conducted at the University of Alabama that compared 2 (two) bibliographic instruction programs by using the Kohl and Wilson criteria to evaluate each method's effect on student term paper bibliographies and discussed the application of evaluation criteria, and offers suggestions to increase the effectiveness of evaluation criteria.

Konings (1993) compared and evaluated 7 (seven) bibliographies/bibliographic databases have in the field of Computer Science. It was found that only 5 (five) bibliographies cover the whole of the subject area examined. A great difference was also found to exist between the numbers of periodicals scanned (73 to 2771) and between the percentages of articles included from 6 (six) carefully selected periodicals (27% in D to 83% in G). This results in a small overlap between the examined bibliographies. The article concluded that for a reliable literature study all the different bibliographies/databases have to be searched, whilst the search profile had to be adapted for each bibliography.

6 CONCLUSION

The review of literature shows that there are a number of websites, gateways, and directories which link Internet resources on various subjects. But, studies on these websites, gateways and directories are few which deal with Internet

resources on any particular subject like library and information science. Of course, studies on individual resources exist, e.g. online journals in library and information science, blogs, websites, but a consolidated study on any area of library and information science dealing with Internet resource is not found during the review.

There is always a need to evaluate the resources while making use of the same. Various studies support such need. In libraries a pre-evaluation is done at the time of selecting the resources, but for free Internet resources, such mechanism does not exist.

There are large numbers of studies which deal with the criteria of evaluation of websites, but the important criteria emerged during the study to evaluate a website include: authority, purpose, intended audience, scope and currency. Additional criteria may be added as per the requirement of a study and use as well as nature of Internet resources.

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NOTES

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[1] RSS - acronym for Really Simple Syndication - is a standard developed in XML language that allows to responsible for websites and blogs to disseminate news or highlights.

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