Evaluation of Websites: A Study

By

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ABSTRACT

While searching for information the researcher will encounter many types of resources—books, articles and websites. But all of them may not be suitable for his purpose. The researcher needs to identify only relevant and authentic information which suits his purpose. The information source has to be evaluated in terms of coverage, scope, intended users, timeliness, authority, objectivity, documentation etc. Though most of the strategies stated above for evaluating the information can be applied to any type of resource, the unfiltered, free-from nature of the web provides unique challenges in determining a website’s appropriateness as an information source. Many guidelines and checklists are available on Net for evaluating Internet sources. This paper presents the findings of such a study made to evaluate selected websites to check the validity of information, coverage, currency, appropriateness, links and structure of the website keeping in view certain evaluation criteria. Findings reveal that variations exist among the websites in terms of their structure and content and it is also possible to find out validity of information available on Web by evaluating the resource we want to use.

KEYWORDS: World Wide Web, Websites, Website Hosting, Use of Websites

0. INTRODUCTION

The world wide web offers students, teachers and researchers the opportunity to find information and data from all over the world. The Web is easy to use; both for finding information and for publishing it electronically. Since so much information is available, and because that information can appear to be fairly ‘anonymous’, it is
necessary to develop skills to evaluate what you find. Criteria for evaluation Internet sources have been developed by different persons and organizations. This paper presents the results of a study conducted to evaluate the features of selected web sites and discusses about the need for standardizing the practices of designing the web sites.

1. PURPOSE

The purpose of this study is to examine select Websites of different institutions, organizations, companies or government bodies. Forty websites from Internet are chosen and have been evaluated, keeping in view a set of questions to test their authenticity and usability.

2. METHODOLOGY

These web sites were selected randomly for this study. They include different websites representing different catalog of institutions, organizations, companies and government agencies located in India, USA and UK. All the data pertaining to this study was collected during the month of November, 2002.

3. REVIEW OF LITERATURE

Review of literature reveals that efforts have been made by many authors to examine different aspects of web sites. Cohen and still (1999), King (1998), Stover and Zink (1996), Sowards (1998), Dalal, Quibble and Wyatt (2000), Huizingh (2000), Hans and Grams (2000) made systematic study of different web sites mainly to examine and compare their content and structure. Some of them even offered suggestions on how to build websites to achieve best results. On the other hand many individuals and institutions tried to develop varied check list points and guidelines for evaluating the authoritativeness of the web sites or Internet. Most of the strategies they have suggested for evaluating information can be applied to any type of resource (books, articles or websites). For example, academic institutions like the library of university of California, Berkeley, library of the Cornell University, Purdue University Library and authors like Piper (2000), Hin Chliffe (1997), Grassian (1997), Nielsen (1996) Kelly (1999) have developed guidelines and readymade evaluation worksheets for easy adoption for evaluating the web information sources.

Following are the set of questions framed by Pace University Library, which are helpful in evaluating the validity and usability of web site.

Is there another information source that you know of where you could find this information or check for accuracy? If so

where?
Can you identify the author or producer of the site? Who are they?
Is contact information for the author or producer available?
Is the author affiliated with an organization agency, company, or institution? If so, which one?
Is there a link to more information about the organization, agency, company or institution?
What is the expertise of the person who created the site?
Is there an evident bias on the site? If so, what is it and how it is important to your research?
What is the purpose of the web page (Information? Entertaining? Factual? Any other?)
Who are the target audience?
Is the page dated? When was the web site last revised? Is this important to your research?
Did you find many dead links? Have some expired or moved?
Is the material on the web site in-depth enough for your needs? Too in-depth?
Is the text readable? Is it grammatically correct, are words spelled correctly?
Did you have any other observations or notes you think are important?

For the purpose of this study the above set of questions are used for evaluating the selected web sites in terms of their content, structure and authoritativeness.

4 ANALYSIS OF DATA

Relevant information to answer the set of questions used as check list points was ascertained through careful examination of the randomly selected web sites. Using the Excel spreadsheet, the data has been processed and tabulated and a simple percentage was obtained. The tabulated data is presented in the following tables.

I. Table: 1

Table 1 traces out the answers for the first three questions pertaining to availability of alternative sources; information about author or producer and provisions made for contact information.

Table: 1

<table>
<thead>
<tr>
<th>Availability of the alternative sources…</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>28</td>
<td>40</td>
</tr>
<tr>
<td>(30.00)</td>
<td>(70.00)</td>
<td>(100.00)</td>
<td></td>
</tr>
</tbody>
</table>
Majority of the web sites could not be evaluated in terms of their accuracy with the help of alternative sources since only 30% of the sites were found to be having alternative sources. All the web sites studied have indication regarding either author or the producer as the case may be. Majority (85%) of the websites are developed by institutions as producers. Except 17 percent of the web sites, other web site producers and authors have indicated their e-mail address and/or postal addresses with telephone and fax numbers for the purpose of further contact by the user.

II. Table: 2

Data pertaining to author’s affiliation with any organization, institution or company, provision of links to more information about the organization or institute and expertise and qualifications of the person designed and developed the web site are covered in table:2

Table: 2

<table>
<thead>
<tr>
<th>Areas</th>
<th>Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Authors affiliation with the organize</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>(67.50)</td>
<td>(32.50)</td>
</tr>
<tr>
<td>Links to get more information about the organization</td>
<td>40</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(100.00)</td>
<td></td>
</tr>
<tr>
<td>Expertise and qualification of the author</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>(55.00)</td>
<td>(45.00)</td>
</tr>
</tbody>
</table>

Affiliation of the author with the organization or institution has been mentioned in the case of 67% percent of the web sites. To ascertain more information about the organization, captions like “more about us”, ‘more..’ are used to give access to further information. Regarding the expertise and qualifications of the authors of the web sites, only 45% gave the details.

III. Table: 3
Issues like biased information coverage, mention about the purpose of creating & launching the web site and the target users for whom it has been aimed are being covered in the following table.

**Table: 3**

<table>
<thead>
<tr>
<th>Areas</th>
<th>Response</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biased information coverage</td>
<td>----------</td>
<td>-----</td>
<td>----</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-----</td>
<td>----</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(100.00)</td>
<td></td>
<td>(100.00)</td>
</tr>
<tr>
<td>Purpose of creating the web site</td>
<td>----------</td>
<td>-----</td>
<td>----</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>----------</td>
<td>-----</td>
<td>----</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>(100.00)</td>
<td></td>
<td></td>
<td>(100.00)</td>
</tr>
<tr>
<td>Mention about the target users</td>
<td>----------</td>
<td>-----</td>
<td>----</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>----------</td>
<td>-----</td>
<td>----</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>(100.00)</td>
<td></td>
<td></td>
<td>(100.00)</td>
</tr>
</tbody>
</table>

Objective presentation and coverage of the information is observed in the design & structure of information and links on all the web sites. Purpose of creating the web sites was clearly stated on by all the web site producers. The purpose of 85% of the web site design is found to be informative. Only 15% are found to be having business or consultany motives other than informative. All the websites have clear and specific mention about the target group of users.

**IV Table: 4**

Timeliness of the information covered by the web site is an important aspect for the user referring it. Details regarding mention about the date of posting & revision and information about dead links and link moved to other location are presented in table 4.

**Table: 4**

<table>
<thead>
<tr>
<th>Areas</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indication of date of posting</td>
<td>18</td>
<td>22</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>(45.00)</td>
<td>(55.00)</td>
<td>(100.00)</td>
</tr>
<tr>
<td>Indication of date of revision</td>
<td>18</td>
<td>22</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>(45.00)</td>
<td>(55.00)</td>
<td>(100.00)</td>
</tr>
<tr>
<td>Indication about dead links</td>
<td>40</td>
<td>--</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>(100.00)</td>
<td></td>
<td>(100.00)</td>
</tr>
</tbody>
</table>
Information regarding the date of posting the information and latest date of revision made are clearly indicated by 45% of the web site producers. None of the web sites was found to be having any dead links or links moved to other locations during the time of examining the selected web sites by the researcher.

V Table: 5

The table below shows details about the adequacy of coverage of the information in the form of links, the readability aspect of text, correctness in grammar and spelt words on the web site.

<table>
<thead>
<tr>
<th>Areas</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequacy of the material covered</td>
<td>40</td>
<td>--</td>
</tr>
<tr>
<td>(100.00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Readability of the text</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>(100.00)</td>
<td></td>
<td>(100.00)</td>
</tr>
<tr>
<td>Grammatical correctness of the text</td>
<td>40</td>
<td>--</td>
</tr>
<tr>
<td>(100.00)</td>
<td></td>
<td>(100.00)</td>
</tr>
<tr>
<td>Correctness of the spelling of the words</td>
<td>40</td>
<td>--</td>
</tr>
<tr>
<td>(100.00)</td>
<td></td>
<td>(100.00)</td>
</tr>
</tbody>
</table>

It was found that lot of information is provided by the web site producers with different links and sub links to different web pages covering their area of concern. Language followed is simple and direct, grammatical and spellings errors are not found any where in the text provided.

VI Table: 6

Besides the prescribed features covered in the check list, various other features & facilities are also available with some of the websites which are of immense use to the web site users. Table 6 projects the details about these features under different headings.

<table>
<thead>
<tr>
<th>Any other</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Facility</td>
<td>28</td>
<td>18</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>(55.00)</td>
<td>(45.00)</td>
<td>(100.00)</td>
</tr>
</tbody>
</table>
The analysis of data reveals that in addition to the regular features, some of the web sites have provided additional features and facilities to facilitate easy and more access to the information and links offered in the site. They include provision of advanced search facility, online help, indication about scope of coverage and treatment of the subject (scholarly or general), feed back, provision to add new links by users, online question & answer facility etc. Web sites of academic institutions are found to be giving more importance to scholarly information.

5. CONCLUSIONS

1. Information available on the web site about the author or producer and their addresses help us in evaluating the purposes of the web site on one hand and to contact the author or producer to clarify doubts or to express opinions or to offer suggestions on the other hand. The study revealed that all the web sites have this facility to identify the author or producer and his credentials.

2. Author’s affiliation with the organization or institution indicates the ‘official character’ of the web page. It acts as an assurance that the site you are evaluating functions within an organizational or institutional setting. Majority of the web sites covered in the study have shown the authors affiliation and if we have no idea about their address, we can not evaluate that site which cannot be verified. It is then better to use another source.

3. When we use or access particular information on a web site, we wish to know how “fresh” is the
information’ or ‘data’ provided. This is especially important in the case of time sensitive information, such as census information or other statistics. It is also valuable to know when the information on the web site is last updated. Though not all, significant percent of the web site producers are found to be indicating the date of posting and revision on the web site showing the currency of the information provided.

4. The scope of a particular web site is a measure the intended coverage of the source, the actual coverage of the topic it provides and the currency of the information it contains. The coverage of information always depends on the target users and the purpose of developing the web site. The study indicates that all the web site producers have clear idea about the purpose with which they have designed the website and nature and needs of their target users.

5. The study also reveals that all the web sites, do not offer all the facilities to the users. They need to improve their content and structure with the help published guidelines and guide books available electronically on Net. Careful examination of other successful & popular sites on the WWW will also help in making the existing features of their web sites more usable, helpful and attractive.

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3. Nielsen, Jakobs Top ten mistakes in web design Alert box for May 1996.
   http://www.useit.com/alertbox/9605.html
4. Pace University Library. Web site Evaluation Work sheet
   http://www.pace.edu/library/instruct/webevalworksheet.html
   http://www.infotoday.com/searcher/sepopo/piper.html
   http://www.lib.berkeley.edu/teachinghils/guides/evaluation.html
   http://www.library.cornell.edu/okcurref/research/webeval.html
10. Haas, S.W. & Grams, E.S. 2000. Readers, authors, and page structure: a discussion of four questions


LIST OF WEBSITES STUDIED

1. www Virtual Library – Computing
   http://vlib.org/computing.html

2. Association for Computing Machinery
   www.acm.org

3. The Association for Women in Computer
   www.awc-hq.org

4. Silver Platter Company
   www.silverplatter.com/

5. Asian sources electronic engineer
   http://www.ee.asiansources.com/

6. Edinburgh Engineering virtual library
   http://www.eevl.ac.uk/

7. Engineeringtalk.com
   http://www.engineeringtalk.com

8. Engineerssupply.com
   http://www.engineerssupply.com/
9. Virtual engineer.net
   http://www.virtual-engineer.net/
10. Yahoo – engineering
    http://dir.yahoo.com/science/engineering/
11. Engineering Library, Cornell University
    http://www.englib.cornell.edu/erg/
12. IIT, Bombay
    http://www.iitb.ac.in
13. IIT, Delhi
    http://www.iitd.ac.in
14. IIT, Madras
    http://www.iitm.ac.in
15. IIT, Kanpur.
    http://www.iitk.ac.in
16. IIT, Kharagpur
    http://www.iitkar.ac.in
17. IBM: International Business Machines
    www.ibm.com
18. Quantum Books
    http://www.quantumbooks.com
19. Hot Chips
    http://www.hotchips.org/
20. Biogate
    http://www.biogate.lub.lu.sc/
21. SOSIG
    http://www.sosig.ac.uk/
22. Internet Library For Librarians
    http://www.itcompany.com/inforetriver
23. Infomotions
    http://www.infomotions.com
24. PINAKE
http://www.hw/libwww/orn/pinakes/

25. Informatik, Inc.
http://www.informatik.com

26. Arts and Humanities Data Service
http://ahds.ac.uk

27. The British Library
http://www.bl.uk

28. Digital Object Identifier
http://www.doi.org/

29. National Library of Australia
http://www.nla.gov.au

30. National Library of Medicine

31. Project PRISM
http://www.prism.cornell.edu/

32. OCLC
http://www.oclc.org

33. RLG Web site
http://www.rlg.org/toc.html

34. About.com
http://www.about.com

35. BUBL Information Services
http://www.bubl.ac.uk

36. EMC hub
http://www.emc.ac.uk

37. Fathom.com
http://www.fathom.com/

38. Ingenta.com
BRIEF BIOGRAPHY OF AUTHOR

Dr. C. Sasikala is working as Associate Professor in the Department of Library and Information Science, Andhra University, Visakhapatnam. She has more than 19 years of teaching and research experience. She authored 40 articles and 2 books. She is also now acting as associate incharge Librarian of Dr.V.S.Krishna Library of Andhra University. As British Council scholar she attended summer school programme of School of Information Studies, University of Wales Aberystwith, U.K.