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A CRITICAL ANALYSIS OF WORLD WIDE WEB RESOURCES

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Abstract:

World Wide Web is a massive library of libraries included in a massive network of networks that is the Internet, for which we need an efficient system or instrument for knowledge of knowledge and some evaluation criteria of what offer this cybermamouth of data. Most times there is not enough common sense, requiring well-defined criteria and tools to assess the relevance, credibility and utility of information resources found on the Internet.

This paper tries just a little to make us think about it.

Key words: *Web resources target audience, evaluative reviews, coverage, credibility, accuracy, search engines, invisible web.*

1.Introduction

Many people use the terms Internet and World Wide Web (short Web) interchangeably, but in fact the two terms are not synonymous. The Internet and the Web are two separate but related things.

The Internet is a massive network of networks, a networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. Information that travels over the Internet does so via a variety of languages known as a standard set of operating protocols.

Notion of internet it is often confused with the WWW (World Wide Web). They are not the same, because the WWW is only one of the applications of the Internet (e-mail, for instance, is another).

WWW is a system of interlinked hypertext documents that can be accessed through the Internet. The World Wide Web, or simply Web, is a way of accessing information over the Internet, who must know the same language in order to understand each other. WWW is an information-sharing model which uses the HTTP protocol, only one of the languages spoken over the Internet, to transmit data. Web services use HTTP to allow applications to communicate and to share information. The Web also uses browsers, such as Internet Explorer or Firefox, to access Web documents called Web pages that are linked to each other via hyperlinks. Web documents may also contain graphics, sounds, text and video.

The Web is just one of the ways that information can be spread over the Internet. The Internet, not the Web, is also used for e-mail, which relies on SMTP, Usenet news

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groups, instant messaging and FTP. So the Web is just a part of the Internet, a large portion indeed, but the two terms are not synonymous and should not be confused.

Although the Internet can be a great tool for research, sometimes it's a challenge to find quality and useful materials on Web.

2. A critical analysis of World Wide Web resources.

Why the Internet? Why the library?

Why we need both?

In general, Web pages and documents on the Internet provide useful information even if is data or support software available online. All of these can also be considered resources. In comparing the advantages and disadvantages of using the Internet instead of a traditional library we should take in consideration a lot of things.

There are many reasons why we should be cautious about information found on Internet and why we need evaluation.

In everyday life, we know that not everything being said is true. The Internet amplifies this truth, because anyone can say anything behind anonymity.

The evaluation of information is the process of critically analyzing a document, or information in order to establish its quality or value. The analysis is done by applying judgment criteria to establish its reliability, authenticity, credibility of the source, the reliability and the validity of the information.

Many of these thousands of web pages of the Internet contain personal opinions on forums, commercial information and products and so on, all needing an assessment, both in terms of credibility and currency.

There are different views on the usefulness of the internet as compared to traditional libraries.

Class teachers have noted that the "quality" of information decreased with increasing access to the Internet.

Many students mistakenly believe that "everything" is available on the Internet. They also believe that any information which is on the internet, is true by default.

So, everything is not on the Internet. The Internet consists of a small percentage of what's published. Best scientific information are available in books and magazines.

In other news, several websites, because of modality of achievement, publishing or promotion, are not properly indexed by search engines and because of this are not so easily traced by them. It's called invisible Web, or deep Web. That's why when using any of the search engines, are found really just a part of the Internet.

The Internet is not organized. There is not a system for catalog and organize all resources on the Internet. A search on the Internet is similar to search in an unclassified catalog. Searches are not always relevant to our topic and produce much wasted time, frustration and confusion.

Someone said "We can imagine the world's biggest printed encyclopedia, with every page ripped out, and each page ripped up, then the whole lot scattered like confetti... then try to find the meaning of a single term in a heap of unordered scraps of paper, and we can get some idea of the problems involved in using the Internet as an information source."

The Internet has no Quality Control. This isn't easy to achieve on the Internet, so it's easy to get misinformed information from there. Anyone with access to the Internet can publish a Website, but no-one checks that the information is correct, current or able to be authenticated.

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Sources on the Internet are harder to identify. Information on the WWW is hard to tell who's telling you, what and where it is stored. When we use information from the Internet in our papers, it's important to print it out and cite our sources. Information taken from the Web can change overnight. We must give full documentation when using information from a site: author's name (if known), full title of document in quotation marks, date of publication of last revision (if available), full URL address (http) and date of visit.

In exemplary school libraries, the teaching program includes instruction in the use of the Internet. This is not restricted to merely "finding" web sites, but also how to evaluate the quality of the information found. Students also learn how to quickly access the best possible information.

Library Online Resources are Available 24/7. It's an advantage that Internet resources can be accessed 24 hours a day 7 days a week.

Many resources from internet are free or included in the tuition fees for the use of some libraries. Libraries offer free access to some academic books, magazines, newspapers, encyclopedias and other reference printed sources. A lot of information on the Internet are free, except academic, which requires a paid subscription for access.

Internet can be a valuable extension to the library collection. But we must remember that it is mammoth in scale, unordered, and mainly unchecked. Someone says: "We can imagine the world's biggest printed encyclopedia, with every page ripped out, and each page ripped up, then the whole lot scattered like confetti... then try to find the meaning of a single term in a heap of unordered scraps of paper, and we can get some idea of the problems involved in using the Internet as an information source".

The Internet is not a substitute for the library, but a search tool to be used in addition to traditional sources in the library, more accessible and faster.

Evaluating Web Sites: Criteria and Tools

Evaluating sources requires us to think critically by asking a series of questions.

Critical Thinking is thinking that proceeds as the basis of careful evaluation of premises. Critical Thinking means a correct thinking applied on relevant knowledge about the topic in a judgment process.

Critical Thinking is a way to approach problems and make decisions, and this is applied also in Internet resources evaluating.

As the World Wide Web offers a lot of information and data from all over the world, and this information can be quite "anonymous" is absolutely necessary to develop skills to evaluate what we find.

When using a research based on academic libraries, books, journals and other resources, they have been evaluated in one way or another by researchers, publishers and librarians. When we use the World Wide Web, none of this applies. No filter. The criteria by which scholars in most fields evaluate printed information can be used to evaluate information on the Internet.

Presence of date stamp that showing if information is current, author identification and his qualifications and credentials, source citations to scientific data or references, contact information of the author, presence of advertising, well-organized site, certifications from trusted third parties, are only a few factors that influence credibility of Web information.

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The Methods and criteria assessment the informational resources provided by the World Wide Web differs from one specialist to another and takes into account a lot of aspects.

In the following are some examples of evaluation criteria www resources from various points of view.

Things to look for evaluate a Web information source:

If we begin evaluating a physical information source (a book or an article for instance) we appraise the source by first, examining the bibliographic citation. The bibliographic citation is the written description of a book, journal article, essay, or some other published material that appears in the catalog or index. Bibliographic citations characteristically have three main components: author, title, and publication information. These components can help us to determine the usefulness of this source. In the same way, we can appraise a Web site by examining the home page carefully.

I. INITIAL APPRAISAL

Author

First of all, we must see whether the material that we found on the Internet is signed, if the author is known. Then, we try to find out information about him (What else appears when we type the author's name in a search engine?):

- The author's credentials or institutional affiliation (where he or she works);
- Educational background, past writings, or experience;
- If the book or article written on a topic in the author's area of expertise;
- If we have seen the author's name cited in other sources or bibliographies.

Respected authors are cited frequently by other scholars. For this reason, we must always note those names that appear in many different sources;

- If the author is associated with a reputable institution or organization and what are the basic values or goals of that organization or institution.

In other words, we must try to evaluate **the reputation of the author**.

Date of Publication

- When was the source published? If the found material comes from scanning a printed document, this date is often located on the face of the title page below the name of the publisher, or at the copyright date on the reverse of the title page. On Web pages, the date of the last revision is usually at the bottom of the home page, sometimes every page.

- If the source is recent or out-of-date for our topic. Topic areas of continuing and rapid development, such as the sciences, demand more current information. On the other hand, topics in the humanities often require materials that was written many years ago. At the other extreme, some news sources on the Web now note the hour and minute that articles are posted on their site.

Edition or Revision.

- If this a first edition of this publication or not;

- Further editions indicate a source has been revised and updated to reflect changes in knowledge, omissions of the previous edition, and some printings or editions may indicate that the work has become a standard source in the area and is reliable. In a Web source, we should go to the pages indicated for revision dates, if exists.

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Publisher

- If the source is published by a university press, it is likely to be scholarly. Although the fact that the publisher is reputable does not necessarily guarantee quality, but it does show us that the publisher may have high regard for the source being published.

Title of Journal

- If this material is a scholarly or a popular journal. This distinction is important because it indicates different levels of complexity in conveying ideas.

II. CONTENT ANALYSIS

After making an initial assessment we should now examine the body of the document. We read the preface to determine the author's intentions in the book. The table of contents and index are a broad overview of the material covered. We read chapters that specifically address the subject which interest us. Browsing the contents of a journal or an issue of a magazine is also useful. Like in books, the presence and quality of references at the end of the Internet article may reflect the care and responsibility with which the authors have prepared their work.

Target audience

- We try to look for what type of public address the author, if the publication aims at a specialized or a general audience, if this source is too elementary or rather technical, advanced or just right for our needs.

Objective Reasoning

- We try to identify whether the information is fact or opinion, which is not exactly easy. Documents can usually be verified; views, though it may be based on factual information, evolves due for interpretation of facts. Skilled writers can make us think their interpretations are facts, so we need to see if the information appear to be valid and well documented, or are questionable and unsupported by evidence;

- Ideas and arguments may be more or less advanced, in line with other works on the same subject. The more radically an author departs from the views of others in the same field, the more his ideas should be examined critically;

- We have to see if we observe an objective and impartial view of the author and if the language is free of emotion-arousing words and bias.

Coverage

- We should see if the document do an update to other sources, substantiate other materials that we have read, or add new information. We should explore enough sources to obtain a variety of viewpoints.

- The material could be primary or secondary. Primary sources are the raw material of the research process and secondary sources are based on primary sources. We must choose both primary and secondary sources when we have the opportunity.

Writing Style

- We should see if the publication is logically organized, if the main points clearly presented. It is not the same if the text is easy to read or is it stilted or choppy.

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Evaluative Reviews

- We should try to locate critical reviews of books in a reviewing source, see if the reviews are positive or the book under review is considered a valuable contribution to the field. The reviewer could mention other books that might be better, which leads us to search these sources for more information on our topic.

- The various reviewers can agree on the value or attributes of the book or can aroused controversy about the book among the critics;

- On the Internet, it is quicker to consult one of the evaluations and reviews of our source. One of the core competencies of an Internet searcher or researcher, is to learn how to determine the relevance and authority of a given resource.

Accuracy

For accuracy, we must identify the web site type and localization (.org, .gov, .com, .net, .edu, .us, .au, .uk), because some personal sites are used to express individual opinions about issues, but not necessarily the facts. It's necessary to assess the authorship, content, and purpose of the web site. Sometimes, the actual purpose of the web site may not be clearly defined and can be difficult to separate advertising from accurate information.

URL might provide information about the type of organization operating the web site for example:

- “.gov” is used by US administrations;

- “.edu” is used by academic institutions;

- “.org” is often used by professional organizations, associations and non for profit organizations;

- “.com” generally denotes commercial orientation of the site or its owner.

Some marketing sites will offer misleading information in attempts to sell their products. Content from web sites operated by governmental organizations, academic institutions and professional organizations is usually updated and trustworthy. In addition the domain name can help identify the owner.

Credibility

Why is necessary to examine for credibility?

Because virtually any person can publish almost anything on the Internet. Or may because unlike most printed sources, web sources do not have to be professionally accepted and edited to be published.

What is a reliable source?

A reliable source is a paper published by an author or group of authors whose competence in this field is recognized. The credibility of a source depends on the one hand the credibility of the author / authors themselves and on the other to the publication. It considers reliable those publications that have a good reputation, based on systematic verification through an editorial mechanism. Specialists in a particular field can be considered trusted sources only in that area. Such a work written about medicine, by a famous mathematician, is not a reliable source unless the author is a mathematician and a doctor recognized also.

Locating the site creator's name can be a challenge. In the same mode, setting authority or expertise of the individual or group.

A reliable website is a well-organized site that facilitates an easy search, it's ensured by privacy and security policies, presents advertising information, contains contact information, and may be provide paid access to information.

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In general, the most credible sources are the published literature of high academic publishers, case in which information is systematically and in detail checked by specialists before being published. They are also reliable university textbooks, journals and books published by newspapers recognized and important. As a general rule, the higher the publication is interested in ensuring the accuracy of the information provided the more credible.

Academic publications based on checks made by specialists are usually the most respectable sources and reliable in areas that are available.

Sources evaluation on the Internet must be in the same way like evaluation of the printed sources. Any reporting of information must be judged having regard to what means and by whom it was made. Publications (printed or electronic) having a team of people who verifies information such as major newspapers, encyclopedias, etc., are generally considered sufficiently trustable.

At the other side of the spectrum are personal web pages, weblogs, discussion forums and other sites where anyone can write anything. Such sites cannot be used as trusted sources, because such disclosures have not been verified by experts.

The reason for not using information from personal pages is that are created by people whose work is not verified by anyone. It could be some intelligent and honest people that offers all the knowledge they have, but it may be uninformed or careless men, who want to mislead the public or other interests, or could be simply insane. These web pages are as credible as an unsigned poster stuck on a pole: we have no way of knowing whether the information provided is authentic.

About search engines and invisible Web

There are many useless information if cannot be found easily.

Due to technical limitations or due to deliberate choice, search engines cannot add to their indices a lot of files, texts or other documents, often high-quality information available via the World Wide Web.

Search engines are designed to index Web pages and use programs called crawlers to find and retrieve Web pages stored on servers all over the world.

If a person manually type a URL into the browser window, retrieve that Web page. Crawlers rely on links they find on Web pages to find other pages. If a Web page has no links pointing to it from any other page on the Web, a search engine crawler can't find it. These "disconnected" pages are the most basic part of the Invisible Web.

Search engines are databases containing full-text indexes web pages.

Search engines are developed by automated software that collects every day millions of pages of evidence. When we looking for an index, the search engine tries to find a match (patternmatching) between search keywords written and all the words contained in the database search engine.

Search engines are complex programs with a few distinct parts, like the spider(or crawler), the "scouts" with the mission of finding pages on the Web and handing them off to the search engine's indexers, the indexers which sorts every word on every page and stores this index of words in a huge database and the query processor, which compares your search query with the index and recommends us the matching documents.

It's a myth that " all search engines are alike", because search engines vary a lot in up-to-date, and coverage of the Web.

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It's like people's knowledge about one thing: someone knows, others have no idea. Similarly, you can ask a search engine about something and not give you anything. Saving possible solution is to ask and other search engine.

If none of the engines are not be able to provide results, it's very possible that what you are seeking is be located on the Invisible Web and needs other search techniques or dedicated application software which facilitates settlements, potential paid, to those databases.

3. Conclusion

Internet is like a warehouse of information, hard to storage, with inbound and outbound, true and false, useful and useless, mixed in an amalgam hard to sort, to organize. It's like a searching in a huge and unorganized library, with no librarian, no mark signs, and no labels to help us. So we have to how to search, where to find and how to evaluate, in order to extract the best useful information.

It's always a challenge to analyze and to extract from this enormous amount of data, the information which serve our needs in the best way.

From indolence or carelessness, some who have posted information on the web, didn't try to update them or remove if it is old and have lost the relevance or is no longer valid. This information risks becoming too persistent and make us misinterpret reality.

In other news, some old but valid information, scientific, historical or anything else can be hardly found on the Internet.

In conclusion, we must be careful to check our sources and compare them with other sources before believing the author presents data or interest.

The Internet has become a major source of information, but we must be care in searching and using online information sources. Good quality information sources are accurate, up to date, comprehensive, well-cited, objective, balanced and fair written, well presented, transparent about the author, with a definite purpose.

Poor quality sources of information are invalid, inaccurate, out-of-date, lacking authority or credibility and usually do not cite references, presents allegation, ruling unbalanced mistakes and omissions.

On the Internet are a lot of good thinks that we are not find and a lot of finds that are not good.

It is a challenge to make the difference between these two possibilities and a greater challenge for all of us to try to solve them.

References:

[1] A.B. Credaro, "*Now we've got the Internet, why do we still need libraries?*" , 30 May 2002, URL: <http://www.warriorlibrarian.com/RESEARCH/libresearch.html>;

[2] Joyce B. Radcliff, Serials Librarian, "*Library VS Internet - ten good reasons to use the library*" ,14 May 2012,

URL:http://www.tnstate.edu/library/publicservices/library_vs_internet.aspx;

[3] UC Berkeley - Teaching Library Internet Workshops, "*Evaluating Web Pages: Questions to Ask & Strategies for Getting the Answers*" , 29 May 2012,

URL:<http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Evaluate.html>;

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- [4] Elizabeth E. Kirk, Johns Hopkins University- Sheridan Libraries, " *Evaluating Information Found on the Internet* " , 28 May 2013,
URL:<http://guides.library.jhu.edu/content.php?pid=198142&sid=1657518>;
- [5] Cornell University Library, " *Critically Analyzing Information Sources: Critical Appraisal and Analysis* " , 9 Nov, 2014,
URL:<http://guides.library.cornell.edu/criticallyanalyzing>;
- [6] Karen M. Christensson, M.S. Library Media Education " *RADCAB - Your Vehicle for Information Evaluation* " , 14 May 2014, URL: <http://www.radcab.com/>;
- [7] Miriam J. Metzger - University of California, Santa Barbara, Department of Communication, Journal Of The American Society For Information Science And Technology, " *Making Sense of Credibility on the Web: Models for Evaluating Online Information and Recommendations for Future Research* " , November 2007, URL: http://schools.org/conference08/pc/WC17_iconf08.pdf;
- [8] Chris Sherman, Gary Price, Danny Sullivan - University of California, Santa Barbara, Department of Communication, Journal Of The American Society For Information Science And Technology, " *The Invisible Web - Uncovering Information sources Search Engines Can't See* " , December 2007, URL: <http://books.google.ro/books?id=Sws-WqdEg0oC&pg=PP1&lpg=PP1&dq=%E2%80%94From+the+Foreword+by+Danny+Sullivan,+SearchEngineWatch.com&source=bl&ots=2p3D0xk8Ju&sig=T40My-G-EBHKNzbWs0bNhxG5bjg&hl=ro&sa=X&ei=goVgVPGuN4XDOvDUgdgI&ved=0CEUQ6AEwBA#v=onepage&q=%E2%80%94From%20the%20Foreword%20by%20Danny%20Sullivan%2C%20SearchEngineWatch.com&f=false>.