



Information on Assessing Websites

The Internet offers access to a wide variety of resources and information. Since anyone can develop a website and present herself or himself as an authority, it is up to you to determine if the information you find through the Internet is current, accurate, and from a reliable source.

Below we suggest some criteria that survivors of violence or those researching anti-violence issues can use to judge the legitimacy of information found on the Internet.

There is no one guaranteed method to ensure that a website is reliable. So, the questions we explore below aim to help you in critically evaluating the information you find and making decisions about a website's suitability.

Criteria

Before you begin your research, it might help to clarify the subject matter and range of the information you are interested in finding.

- Are government or legal sources the primary materials you want to reference?
- Is the information you need specific to a particular geographic area – as is the case with provincial law or municipal by-laws?
- What is your purpose/goal in looking at websites at this particular time – personal research, searching for links to another website, general interest, etc.?

Then look at each website you find with a critical eye and with the following questions in mind.

Content

- What is this site about?
- Who is the intended audience? Is the 'stated intent' of the website clear? Does the subject matter match the stated intent?
- How comprehensive is the site? Is the provided information thorough?
- Is the language elementary, advanced, very technical, or specific to a particular discipline (e.g. medical or legal terminology)?
- What is the range of the information covered? Does it consist of facts or opinions; does it offer a balanced or a one-sided, narrow view of the subject?
- Is the information well-researched and verifiable? Are there references or links to other sites that add to the information?
- Does the site assume certain facts without presenting solid evidence? And if so – are they assumptions that you agree with? E.g., a site might assume that all its readers subscribe to a particular theology, such as Christianity, or even a particular denomination, like Catholicism. So

everything posted there might be written from a perspective that assumes Catholic beliefs as facts. Or a site might be written as if it's a given that all people engaged in sex work do so unwillingly and are harmed by it. It is useful to consciously notice such assumptions, even if they are ones you agree with. That awareness may help you identify areas or sources of research you've neglected – if, for example, so far you've only looked at sites (and other sources of information) that share your assumptions/perspectives.

- Is there anything you consider significant that has been left out?
- How does this site compare to similar sites? Does it repeat the same information or offer a new perspective?
- Does the site present unique information – or does it mainly quote other sources or provide links to different sites?
- Is there advertising on the site, and do you think it impacts the information presented? Is the site basically a marketing tool with no real informational value?
- If links to other sites are posted, do you find them relevant and appropriate? What kind of information do the linked sites provide? Are readers given any pre-indication of those sites' contents (through the phrasing of the anchor text, or a short description next to the link, etc.), or is it necessary to visit them?

Authority

- Who is the author or producer of the site? Who developed it? Is that information provided to visitors – through a biography, credentials, an “about the author” link on the home page, etc.?
- Does the author, if one is named, work for a particular organization? What do you know about it?
- Who produced the page or document you are currently viewing? It may not be the same person who developed the home page or other parts of the site, and the reliability of the information may vary between the site's different sections.
- Is the author/producer associated with other reputable institutions or organizations? Does the site or page you are looking at represent a particular group, organization, institution, corporation or government?
- Does the author have stated qualifications and/or credentials in the subject area s/he is writing about? Can these be verified?
- If an organization or institution produces the site, is their vision statement or mission statement posted? What are their basic values and goals? Is there a way of verifying those statements, or learning more about their work?
- Is contact information for the site owners or authors (email or postal address, phone number) provided? If not, why not? If yes, do the authors explicitly encourage feedback and questions from the site visitors? If you are required to give personal information before you can access more content on the site, proceed cautiously. This could be a marketing ploy and result in your receiving unsolicited and unwanted advertising. It could also lead to security issues, like identity theft. Always be extremely cautious when asked for personal or identifying information, e.g. home address, Social Insurance Number (SIN), birth date, your workplace, your children's school, or anything to do with your banking. Divulging these could put you at risk of robbery, scam, assault, or other crime, depending on what information you share.
- Keep in mind that not all websites can meet your research needs alone. One example is Wikipedia: even though it contains much varied and often detailed information, it is not an

academic resource for information. Since anyone can write their ideas or beliefs into a Wikipedia page, the information on the site might not always be accurate.

Why should we query the author or source of a web page?

It is important for us to consider the questions above because we are taught to believe the published word – whether it’s a book, web page, magazine or article – yet not all published information is true. If you are unable to find an author or an organization that takes credit for a website, then the credibility of the site is low. If no one wants to take responsibility for the site, why should you believe anything posted on it?

Even if you do find an organization or author who is responsible for the site, you still need to be careful. Make sure that the organization or author of the site is who they say they are. This might require some investigation – for example, looking up the author(s) on other websites, contacting the Better Business Bureau or other established information providers, etc.

Accuracy and Currency

- Can you find a date when the website became active?
- Has the site been updated or edited recently? A lot of Internet content pertains to issues or events which are still developing, so finding information that’s up-to-date may be important.
- Is this page part of a peer-reviewed publication?
- Are there footnotes or a bibliography, which refer to other credible sources of information?
- Check what you read on any website against other sources (print or online publications, communication from an expert, etc.) to confirm the reliability of the information. If you cannot find another unrelated source to confirm the information, be cautious about trusting a site’s ‘facts’.
- Are any representations of statistical data on the page, such as graphs or charts, clearly labelled?
- Are the posted links kept current – do they lead to active and relevant web pages? Or – do they generate page-load error messages, or lead to sites which have changed owners or altered their layout and thus no longer provide relevant information?
- Is the site well written, following basic rules of grammar, spelling and composition? Errors in grammar and spelling can actually result in inaccurate information being presented; they also indicate a lack of quality control.
- Are sources of factual information clearly listed and/or cited?

Why should we query the accuracy of a web page?

There are significant differences between traditional print publishing of academic work and posting information on the Internet. Traditionally, when scholar(s) want to publish an article they wrote, the article needs to be comprehensively reviewed by editors and referees, who will then decide whether or not to publish it.

In a peer-review process the editor can send the article to 2-4 referees. After the referees read the article, they write reports, which might recommend: acceptance, acceptance with minor changes, acceptance with major changes, or rejection. The rate of acceptance is 30%, and the process takes up to a year. On the other hand, the articles or information posted on the web generally do not have to go through a peer-review process, and sometimes are not edited at all. It is possible to find e-

journals which are edited and peer-reviewed, but much information on the web is not edited, and there is no system in place that requires proofreading or editing before material is posted on the web.

The number of journals and magazines published on the Internet is constantly increasing. The table below shows some of the differences between scholarly and popular periodicals. Looking at these differences might help you work out what kind of research material you want to look at (e.g., academic, focused, quite detailed – or: general, providing just an outline and/or the most pertinent facts, written in accessible language), and so which sources would better fit your needs.

	Scholarly Journals	Popular Magazines
Examples	Journal of the American Medical Association (JAMA), Water, Science and Technology, Foreign Affairs, Science, Nature	Time, Newsweek, Psychology Today, Wired, Maclean's
Authors	Researchers, professors, scholars; professionals, usually experts in specific fields	Journalists, lay people, un-credited authors
References	Articles include footnotes, clearly cite/reference sources of information, and might provide a bibliography of materials for further study	Articles rarely include footnotes, references, or a bibliography
Edited by?	Submitted articles are subjected to a rigorous peer-review process by researchers, professionals and/or scholars in the field	Usually, submitted articles are reviewed by journalists and lay people
Language	Specialized terminology of the discipline is used	Language is non-technical
Contents	Lengthy articles presenting original research; each article preceded by an abstract; in-depth analysis of the topic; in-depth book reviews	Relatively short articles of general interest; coverage of news and current events; brief or superficial book reviews
Presentation and graphics	Articles often include tabulated data, graphs and diagrams; these are detailed and densely informative; advertisements are less common; articles are often divided into separately titled (and sometimes numbered) sections	More eye-catching appearance; many illustrations and photographs (usually in colour); many advertisements
Indexed where?	Found in specialized indexes such as: Anthropological Index, Georef, and Medline	Found in general periodical indexes such as: Academic Search Elite, Canadian Periodical Index, Reader's Guide Abstracts (but keep in mind that general periodical indexes also include scholarly material.)

If the article or web page you are perusing includes a graph that is badly put together, be cautious about trusting the information presented in it. There is an appreciable chance that it's inaccurate or untrue.

Caution is likewise indicated if a web page's content is disorganized (e.g., paragraphs or sentences are disjointed, do not flow together; facts are presented in a partial or haphazard manner), or if there are inconsistencies in the appearance of the page (e.g., sudden changes in font, formatting, or colour).

Another very important factor to consider is how current a site's information is, especially if it is related to science. Ongoing research means scientific facts can change within a short space of time. If a website is updated frequently, its reliability will increase. Reputable sites post the date of their latest update; often that information can be found at the bottom of the page.

Objectivity

- Does the page you're looking at feature any advertisements? If yes, are the advertisements clearly separated from the informational content of the page?
- Does the page seem to be written from a biased or narrow perspective?
- Does the page clearly state its particular perspective on the topic? Are opinions acknowledged as such, or are they presented as facts?
- Does the page use emotionally loaded language? Does it attempt to manipulate readers into agreeing with the author's perspective?

If the content of a website and any advertisements on it are (or appear to be) connected, it is possible that the sponsor(s) of the advertisements also sponsored the research presented on the site.

Research sponsored or supported by a company with a vested interest in the results or conclusions, is often suspected of bias – since, without independent oversight, it can be quite easy to manipulate research, or to misrepresent its findings.

If a site is heavily recommending a particular product or service, or speaking solely of their benefits and virtues, it is possible that it was created by a particular company to market that product or service, and that all the information on it (including comments from satisfied consumers) was manufactured by their marketing department. It's always prudent to check information on any site against other, unconnected sources.

It's not necessarily a problem if a site has a biased or partisan perspective. If that perspective is clearly acknowledged and opinions are not presented as facts, the reader can still benefit from the factual information. On the other hand, sites which use inflammatory language, which present facts in a selective and skewed way or which misrepresent opinions as facts, are usually trying to manipulate the reader, and might not be trustworthy sources of information.

Coverage

- Are there indications whether the web page you are looking at is complete – or still under construction?

- If a web page is the electronic version of a hard-copy publication (book, periodical, article, etc.), are there indications whether all, or only a part, of the publication has been posted on the page?

Why does the coverage of a web page matter?

If the page is or appears to be under construction, its content might change anytime. This makes it an unreliable source for research.

However, if a web site or page still under construction turns out to be of great help in your research, and you want to cite it in a paper or article you write, make sure to indicate its unfinished status in your reference notes or bibliography, along with the date on which you viewed the page.

Purpose

- Can you find out why this website was created? To market or directly sell a product? As a means of political persuasion and/or influencing public opinion? To provide information on a particular topic? Just for fun?
- Does the website offer extensive information – or focus on a narrow range of it?
- What is the presentation of this site or web page? Technical, scholarly, clinical, popular, elementary, etc.? Who is the intended readership: students or others beginning a course of study on the subject; advanced scholars or academics; lay people with no prior knowledge of the topic; etc.?

Why should we ask questions about the purpose of a website?

If a site’s main purpose is to help sell a product, then the information you read there might be suspect and it’s important to check it against other sources. If you wish to quote from the site in a research paper, it’s especially necessary to make sure the information is accurate, and not presented selectively or with biased conclusions.

If the site or web page was created for fun only, then the information there might not be valid. It’s not a good idea to rely on it, or to reference the page in a research paper.

If a site or page is not comprehensive and only presents a narrow range of information or focuses on just one particular perspective, it might still be of use to you. Make sure you read it with a critical mindset, and as always check the information against other sources.

Accessibility

- Is it easy to connect to or view the site using standard software? Or is extra software and/or hardware required? And if so, does the site provide a link to a free download of the needed software? (E.g., some sites which require a pdf reader to view the content, post a link to where that software can be downloaded, thus lessening the limitation/difficulty to its readers.) Is there a statement like ‘Best used with’, and how much does that limit who can use the site?
- Does the site load quickly? Or, if it uses a lot of graphics, animation, or music, is a text-only version offered?
- Is attention paid to the needs of people with disabilities? Do all images have alt tags, or is a text-only version available? Some people with visual (or other) disabilities use devices which read the text on the screen out loud. Those whose disabilities limit the use of their arms, might use voice-

recognition software to navigate the web. Paying attention to the requirements of those assistive technologies is essential. E.g., are the links on the web page made of underlined text, or are they mostly clickable images or buttons with words on them? (Most assistive software cannot read images, even when they have text inscribed into them.) Also: Is some of the information on the page only available through audio, without a text equivalent, thus disadvantaging users with hearing and auditory-processing disabilities? Does the site feature flashing animation, which can make it difficult or impossible for people with some visual or neurological disabilities to access the site? Can the user change the screen resolution or font size and still read the information posted – or is the design locked to a particular resolution or font size?

- Are passwords or fees required to look at the information?
- Can you easily locate the information you're looking for, or is it buried deep within the site?
- Is the site easy to navigate? Are graphics clear, and pages laid out logically? Do icons clearly convey their function – what information do they link to, or what task do they launch?
- Is there a site map, a way to search the site, or clearly labelled/represented links (e.g., “home”, “next page”, etc.) that help the user navigate the site?

Research

Using the Internet as a source of research material requires careful evaluation of the resources found. Be especially conscious of the first three categories discussed here: content, authority and accuracy. Look at more than one source, in order to obtain a variety of viewpoints and to confirm the information. Opinions may be presented as facts; be aware of the difference. It might be prudent to do some research on the writer whose work you are considering as a resource. Does s/he have expertise in the area s/he's written about? It is especially important to know this if you are reading an opinion; without significant expertise the writer can only be credited with a personal viewpoint, not a scholarly conclusion based in facts. If you are using the Internet to collect research for a school project, make sure you know what type of resources your instructor will allow: newspaper articles, magazine articles, online scholarly articles, scholarly websites, popular websites and online articles? Please note that there is a huge difference between popular websites or online articles – and scholarly websites or online articles. Anyone can create a popular website or write a popular online article. But online articles published on scholarly websites are peer-reviewed by experts in that field, and are therefore more trustworthy sources of information. Make sure the sources of all the information conveyed in an article or web page, are listed. It can be difficult to ascertain the accuracy and trustworthiness of any quoted facts if the article or page doesn't cite their sources.

About URLs

Uniform Resource Locators (URLs) are Internet addresses. Here's how they are constructed:
transfer protocol://servername.domain/directory/subdirectory/filename.filetype

All URLs must have the first two elements: transfer protocol and servername.domain (for example: <http://www.metrac.org>).

- The transfer protocol most often seen is 'http' (HyperText Transfer Protocol), the standard format on the World Wide Web; other protocols less commonly seen include 'ftp', and 'gopher'.
- The 'servername.domain' element refers to the computer where the website resides. Not all server names begin with 'www'. The domain name can contain valuable information on where the website is based. In Canada and the US three-letter domain types are commonly used. Examples include: government body (gov), educational institution (edu), not-for-profit

organization (org), commercial enterprise (com), and military body (mil). Two-letter country codes (e.g., 'ca' for Canada, 'uk' for United Kingdom) are sometimes used; the consistency of this practice varies from country to country. E.g., sites based in the U.S. rarely if ever use their country code; sites in Poland usually do. In the United Kingdom, there are two domain types preceding the country code: academic organizations (ac) and commercial organizations (co). Check the sites listed in Additional Resources and see what information is contained in the URLs.

- One way to find out more about the site under evaluation is to shorten the URL in your address bar so that it ends at `servername.domain`, and see if you arrive at a homepage. A homepage can let you know who/what the site is associated with, reveal who funds it, etc.
- The fact that a site is located on a university server, does not guarantee its content or validity. Many universities give their students and faculty space on their server to put up a personal web page.

Additional Resources

There are a number of websites on evaluating Internet resources. Below we reference several comprehensive sites that include information on evaluation, and links to additional sites.

- <http://www.library.ualberta.ca/guides/criticalevaluation>: this is a comprehensive and concise site at the University of Alberta library. It includes a list of evaluation criteria and links to other evaluation sites.
- <http://www.vuw.ac.nz/~agsmith/evaln/evaln.htm>: this site is part of the World Wide Web Information Quality Library and contains links to criteria for evaluating information resources, particularly those on the Internet.
- <http://www.intute.ac.uk>: offers tutorials on website evaluation relevant to different fields.

Glossary of Some Internet Terms

Address

The location of an Internet resource. An email address may take the form of `joeschmoe@somecompany.com`. A web address looks something like `www.somecompany.com`.

Alt tag

An HTML tag that provides alternative text for non-textual elements, usually graphics or 'graphical text' (text made into an image). Attaching alt tags to all images when designing a web page is an important part of making that page accessible to readers with disabilities who are using assistive technologies.

BBS (Bulletin Board System)

A computerized meeting and announcement system. It allows people to have discussions, post announcements, and upload and download files. In the early 1990s, there were thousands or even millions of BBSs around the world. Most of them were small and running on a single IBM clone PC with 1 to 2 phone lines. A few were very large and resembled systems like AOL.

Blog (Web Log)

A blog is a journal which is available for viewing online; the blogger can restrict whether the general public, or only selected individuals, may have access to the journal. Blogging is the writing and posting of new entries to one's blog. Blogging software is widely available and widely used; it helps people with very little or no technical background to update and maintain their blogs.

Most blogs are arranged in reverse chronological order – with the latest posts featured first.

Bps (Bits-Per-Second)

A measurement of the speed of data transfer from one computer to another. A 56K modem is capable of transferring up to 57,000 bits per second.

Broadband

This term refers to Internet connections that have a much greater bandwidth than dial-up modems. There is no specific definition of the speed of a “broadband” connection, but most Internet connections using DSL or provided via cable-TV can be considered broadband connections.

Cookie

In the web environment, a “cookie” is a parcel of text sent by a web server to a web browser, and saved on the browser's computer. The browser sends back the information unchanged every time it connects to that server. Cookies allow websites to remember particular users – in order to authenticate sessions on members-only sites, to collect information about the users' movements on the web, to allow the use of an online shopping cart, to personalize their view of a particular web page or the delivery of information on it, etc.

There are various types of cookies. The most commonly made differentiation, useful for web browser settings, is between first-party and third-party cookies; these are named for whether they come from a website that the browser is currently visiting, or a separate site, intruding on that session. The browser's settings (which the user can easily change) dictate whether it accepts cookies, of which type, and how long it keeps them. A browser can also be set to consult the user each time a server wants to place a cookie on their computer. And the user can delete any or all cookies stored on her/his computer at any time.

When a cookie is sent back by the browser, the server can collect and use its identifying information. Cookies are data, not program code; they cannot erase or read information on the user's computer. Rather, they function like tags, and it is the checking and tracking of those tags that allows the originating website to compile data on the user. Sometimes that data is used for benign purposes, like confirming a registered user's login or remembering all items a person wishes to buy at an online store – and sometimes for more problematic ones, like targeted advertising, or tracking a user's travels on the web. The use of cookies allows for great precision in registering the details of web surfing history – which means that a user's habits, preferences, choices, and even opinions can be gleaned from analyzing that information, thus infringing on privacy.

Download

Transfer of data from another computer to one's own computer. The opposite of upload.

E-mail (Electronic Mail)

Text or other messages which are sent from one person to another through computers. E-mail can also be sent to many addresses at once.

Ethernet

A networking technology, embedded in both software and hardware, which links computers into a local area network (LAN). A LAN can be part of the Internet, or a self-contained system which serves one organization, a single building, etc.

FAQ (Frequently Asked Questions)

An FAQ is a document that answers common questions on a specific topic. Many websites have an FAQ page – which might educate about the site’s main subject, or tutor the visitor in how to use the site.

Firewall

An integrated collection of security measures designed to prevent unauthorized electronic access to a networked computer system.

Home Page (or Homepage)

This term has several common meanings. Often it refers to the web page that a browser is set to load on startup. It can also apply to a website’s main page, which contains introductory and site-organizing information. In some countries (e.g., Japan, Germany) it refers to an organization’s complete website.

HTML

HTML, or HyperText Markup Language, is a way of marking text on web pages. It provides the means to format the text, add hyperlinks, embed images or other objects, and so on.

IP Address or IP Number

IP stands for Internet Protocol. An IP address is a numerical identifier assigned to a computer or other device when it is connected to the Internet or a smaller network. The IP number makes it possible for any requested information (e.g., a web page one wants to view) to be loaded onto that computer; its function is similar to a street address for the purpose of delivering mail. The current version of internet protocol is IPv4 – it creates an IP address consisting of 4 parts separated by dots. It is therefore also known as the dotted quad, e.g. 165.113.245.2

Java

Java is a network-friendly program language, developed at Sun Microsystems. It is used to create interactive content for web pages, including browser plugins (such as those that help play video or audio files on web pages) and applications that aid e-commerce transactions. Another of its common uses is joining several computers across networks so that they work together as a single, more powerful machine. Java is widely utilized due to its ‘cross-platform’ aspect, i.e. its ability to work on multiple operating systems and hardware types. The vast majority of cell phones and mobile devices run Java applications.

JPEG

The acronym for Joint Photographic Experts Group. It is mostly used as a format for image files.

PDF

PDF, or Portable Document Format, is a file format designed for viewing a document as if it were printed, using the formatting, layout, graphics, and all printing specifications set for that document. A file made with PDF-creating software, such as Adobe Acrobat or PrimoPDF, looks the same on every operating system (Windows, Macintosh, Linux, etc.). Releasing documents as PDF files is a paperless alternative to printing, and helps maintain document security and integrity: the author can set controls to limit copying, editing, or printing. The format is based on the broadly used Postscript document-description language. Postscript and PDF were both designed by Adobe Systems.

Website

The entire collection of web pages and other resources (such as images, video, documents, music, etc.) made available through a (seemingly) single web server. Typically, all parts of a website share the first part of the URL, usually the servername.domain; for instance: <http://www.metrac.com>. However, some large organizations might have separate websites for different departments or divisions.

Wi-Fi (Wireless Fidelity)

A popular term for a specific form of wireless data communication. Wi-Fi is essentially wireless Ethernet.

WWW (World Wide Web)

Also referred to as ‘the Web’. Most people think the World Wide Web is synonymous with the Internet, but that’s not the case. “World Wide Web” has two main meanings:

1. The whole constellation of resources or information that can be accessed through *Gopher*, *FTP*, *HTTP*, *telnet*, *USENET*, *WAIS* and other tools.
2. The universe of hypertext servers (*HTTP* servers), mostly referred to as “web servers”. These are the servers that deliver web pages to web browsers.

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