

Africa Information on the Internet

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The Internet is now the first stop when it comes to finding information, but it also acts as a complement to other sources. Today, there is an increasing amount of information produced locally in Africa, alongside material about Africa from international organisations, institutions and other sources outside the continent. There are also several publications available as full text, both in digital archives and also on ordinary web pages.

Information services, portals and link collections supplied on the Internet from organisations and libraries focusing on Africa are, in many cases, a good starting point for finding structured information about Africa. Correctly used, major search engines, such as Google, Google Scholar and Yahoo can also sift out relevant material from the vast amount of information available on the Internet. Social media such as Twitter, Facebook and blogs are excellent tools to cover debates and hot topics.

Finding information on the Internet that is relevant, up-to-date and reliable is difficult. Just as with printed media, the sources need to be evaluated. In addition to the usual questions “Who?” (originator), “Why?” (purpose), “When?” (topicality), one should also, for sources on the Internet, ask the question “How?” How did one actually arrive at the source?

Search Engines

Search engines (such as, for example, [Google](#)) are characterised by the contents (words) of web pages being searched by machine and gathered together in a database. The robot that searches web pages finds its way via the links located on the web pages. When searching via a form, search words are matched against words in the database, which then point ahead to the web pages where the words were found. All search engines have help pages showing tips for how best to use the service. The greatest problem is the amount of hits that turn up. The answers are ranked according to where the words are to be found on the web page, and according to how many have linked to the page, among other criteria. The web pages where the words appear frequently, in the title, in the metadata of the web page (information about the web page title, author, publication date, subject, type of material, etc., shown in the html code) are shown at the top of the list, as are web pages with many incoming links. There are ways of making the search more precise in order to avoid the large number of hits.

[Google](#)

Question: What is education in Kenya like from a gender perspective?

The search words "gender education Kenya" on Google produce around 114 million hits. The first hits on the list look good, but it is difficult to sift out links that are useful. However, using the advanced search feature on Google, it is possible to limit the search in various ways. Advanced search can be found under settings. If it is locally produced material that is wanted, you can search for links to websites in Kenya under "Region". It is also possible to limit the hits to links on websites with the address ".org", which are often the websites of large international organisations (see below, under evaluation of sources relating to addresses).

It is also possible to try different file formats in advanced searching. By limiting a search to links in PDF format, it is possible to pick out information that gives a more detailed answer to the question. Reports that are already published in print are often published in PDF format.

Tip: Choose further search words based on the links that appear, in order to target relevant material. Example: Add the word "statistics" to produce links to statistics, add "girls" for links to material about primary and lower secondary schools and "higher education" for links to material about universities. Add the file format ".xls." for searches for statistics and the hit list will then contain Excel sheets with statistics. Change ".org" to ".ke" in the domain field to find information published in Kenya, or change it to ".gov" and up comes information from American public authorities. However, see below under evaluation of sources relating to addresses. You can also try to change the order of the words "Kenya gender education" in order to find different focus points. The hit list is sorted in accordance to the order of the search words.

When searching for sources, especially in the light of conflicts and disputes, it can prove useful to keep in mind the diaspora communities with their varying agendas, sometimes strongly involved in the course of events in the home country and with a lively online presence. Try combining the term "diaspora" with the name of an African nationality or country in a search engine to find these communities.

[Google Scholar](#)

Google Scholar is aimed at academic material published both for free online and in licensed databases. Much of what is felt to be irrelevant when searching on Google is filtered out. Students and researchers at Nordic universities often have direct access to the complete text, as several university libraries have linked their licensed resources to Google Scholar. However, it is very unclear how much material published in Africa is included on Google Scholar. They provide hardly any information about what is indexed in the service.

The major weaknesses of search engines are that they are based on robots that collect links via other links, and that they never cover the whole of the Internet.

A robot visits websites with varying frequency. The websites of large organisations and websites that are very dynamic, such as news agencies, are visited more often than more peripheral websites. In Google's database, there are links both to websites that are visited daily by the robot and to websites visited perhaps only once every six months. This means you must always ask yourself if what you are looking for is actually available in the search engine's database. As much of what is published on the Internet is focused on the USA or the West/North, and the search robots gather links via links, you should also ask yourself how well represented locally produced information from Africa is via search engines. There are investigations showing a skewed distribution in favour of the West/North in search engines.

It may be worth trying various search engines, as they differ more than one would think in terms of content. The core of search engines' databases with links to well-known, large websites is the same, but those parts of the databases that include links to smaller websites or individual web pages differ significantly. Investigations have shown that when searching narrow concepts using eight large search engines, more than half the total number of links was found by only one search engine. In order to find different search engines, search for "search engines" on Google, and links with alternatives will be shown. Another aspect to be aware of is the effect that is called the filter bubble. The search engines often have built in features to customise hit lists according to previous searches or the user's activity history.

The answers from the search engines are never better than the content of the database, or the question asked. Search engines work best if you search for unique concepts or words, and least well if a very broad, general question is asked. In this case, it is better to use a link collection.

Social Media

The use and penetration of social media is by no means settled yet, globally or in an African context. The ways of utilising it and its relation to more traditional media are in a flux. We can expect to see them as research objects in themselves.

The different types of social media are, of course, already information sources that cannot be ignored when trying to get a comprehensive view of an issue. Authorities, governments, NGOs, organisations, publishers and other actors often use these platforms as complements to their regular websites – as news feeds, for audio-visual materials, for brief comments and for dialogue. With larger entities you may see links from their websites to profiles on [Facebook](#), [Twitter](#), [Youtube](#), [Flickr](#) and even more. In other cases the social media presence may even be the only Internet presence for an actor. The amount of information and work put into these channels from different actors varies considerably. Depending on privacy settings, some – or all – information may be accessible only when signed into the service.

Blog types range from personal to official and everything in between. Finding a reliable blog focused on a specific topic can be very rewarding when trying to keep up-to-date with, for instance, literature or politics, or any alternative views and non-mainstream news. Researchers are also using blogs to disseminate their findings.

Adding selected sources from social media is certainly a way to improve your intelligence gathering and information input, but at the same time you run the risk of increasing the noise. Using social media gives you a chance to cover a topic early on in the information cycle of gossip – news – article – research article – book chapters – books.

The high pace of information and quick changes in trending topics can make it tiresome to search these sources systematically. Using the social media platforms' internal search engines in combination with others may be a good tactic. [Social Searcher](#) lets your search within Facebook, Twitter and [Google+](#). [Technorati](#) is a search engine for blogs in English. It is worth trying the regular search engines also. When finding a source of interest within social media, be sure, if possible, to browse the “followers”, “friends”, “likes” and whatever the connections may be called – to get a picture of affiliated and/or additional related sources.

Even though the globally large social media sites are relatively big in Africa, you should be aware there are also more locally oriented social media present and still developing. Keep track of the progress with the help of, for instance, [oAfrica](#).

When evaluating social media sources one should keep in mind their sometimes ‘semi-informal’ nature. Especially when it comes to the profiles and feeds of individuals: are they claiming something in their capacity as a professional or as a private person? Is it possible or even necessary to make that distinction? Occasionally you find a disclaimer text drawing up some boundaries. With the dialogue and external comments functionalities often included on the social media platforms, extra caution is advised when determining who is in fact saying what. Even official authorities using social media should be evaluated. The question of Why? that is mentioned under the section on Evaluation of sources should always be asked.

At the time of writing the [Government of the Republic of Rwanda](#) can serve as one example of how the social media presence of an official African authority may manifest itself. On the main website there is a “Gov connect” section with links to their [Facebook](#), [Flickr](#), [Twitter](#) and [YouTube](#) profiles. A prominent banner link also leads to the officially supported [Rwandapedia](#) website, which in turn has its own social media presence.

The [Norwegian Council for Africa's list of African blog portals, aggregators and resource webs](#) can serve as a general starting point to the African blogosphere.

Link Collections

One portal for Africa information is the link collections that are held on the websites of libraries and organisations focusing on Africa. Another way of finding relevant link collections or links is to ask the question "Who would think this worthwhile?" For example, if you want to find out about investments in a country, you can probably find links on the website of the Swedish Trade Council. The advantage of using a link collection is that it usually consists of links that have been checked for quality. When using this, do remember that while there is a quality guarantee, the selection of links is directed by the editor's knowledge about the subject and also by the resources for keeping the link collection updated. The selection criteria also vary between different websites, and sometimes there is no account of these.

[Internet Library Sub-Saharan Africa ilissAfrica](#)

A portal with entries to Internet resources and library catalogues provided by the Africa Department of the University Library Johann Christian Senckenberg in Frankfurt and GIGA Information Centre Africa Library in Hamburg. The links are arranged according to regions, countries, organisations and subjects with a search function. There is a high local content in the collection of Internet resources.

[A Guide to Africa on the Internet](#)

The Nordic Africa Institute's library has developed this guide to meet the need for quality-checked and structured sources of information and databases. The content is aimed at research and many of the links are, in their turn, guides to each subject area, where some have a broader focus than just research. The division into subject guides and country guides is an attempt to capture the various types of questions the users have.

There are around 1 500 links, with annotations in English, which cover, among others, the following subject areas:

Country-specific information sources, Subject-specific information sources, Libraries and databases, Periodicals, News agencies and news dissemination, Radio and television, Research institutes, universities and organisations, Internet portals in Africa, Other collections of information sources about Africa.

[Africa South of the Sahara. Selected Internet Resources](#)

A selection of Internet sources made by Karen Fung at the Africa Collection, Hoover Library, Stanford University for the Electronic Technology Group of the African Studies Association in the USA. The links are arranged according to regions, countries and subjects with a search function.

[African Studies Internet Resources](#)

A summary of bibliographic sources and research material about Africa, created by the African Studies Department of Columbia University Libraries, USA. The links are arranged according to regions, countries, organisations and subjects with a search function where you select Search Website. The selection is aimed at research and also includes links to complete text documents.

[An A-Z of African Studies on the Internet](#)

A link collection compiled by Peter Limb of the Africana Library at Michigan State University, USA. This also includes links to email lists and discussion groups. The links are arranged according to subjects, with a search function.

[Open Directory: Africa](#)

A general link collection with links arranged according to country with a search function. The link collection is compiled by volunteers.

Language

While websites of authorities, organisations and corporations are quite often multilingual, there may be cases where it is difficult to see where to change the language – especially if the default language is one you cannot work out and the toggle link is in that language only. Usually the switch is placed in the header section of the website or in the sidebar, perhaps as part of a drop-down list. Moving the pointer over hyperlinks usually displays a tooltip in your web browser, revealing more information about the destination page or the URL.

Sometimes the content management system of a website adds bits to the URL revealing language settings. An Arabic website may, for instance, have a default URL looking like this: www.sudan.gov.sd/index.php/ar/, where the “ar” reveals that the active language is Arabic, easily confirmed by viewing the screen. Replacing the “ar” with “en” or “fr” and reloading the page would, in this real-life example, switch the website to the English or the French version (also available through a drop down menu). Bear in mind however that the syntax of the URLs may differ a lot and that the language codes may not be as easily understandable as in the example above – making this a method good to know, but not to completely rely on.

[Google Translate](#) has become a popular translation service, and while you should use it with caution, it can be useful when navigating a website written in a language you do not know, giving at least the outline of the information. Afrikaans and Swahili have already been supported for some years, and at the end of 2013 Hausa, Igbo, Yoruba, Somali and Zulu were added. Use Google Translate by pasting the URL of a webpage – or a snippet of text – into its text area. The service tries to automatically identify the language and you can choose which language to translate to.

Evaluation of Sources

Just as with printed sources, sources on the Internet need to be evaluated. In the first instance, there are four questions that should be asked: Who? Why? When? How? A brief review of these follows below. The review is not at all complete, but should rather be seen as a suggestion for questions to ask when assessing the source, and as a complement to the usual questions asked when evaluating printed sources. There are many good reviews on how to assess Internet sources on the websites of libraries, see the end of the text for references.

Who?

Who is the originator? What authority does he/she/the organisation have? Is there any information about him/her/it?

Publishing on the Internet is both easy and inexpensive. Quality controls, such as editors and subject specialists in publishing houses do not exist. Financial resources are not an obstacle. Information from large, established knowledge organisations sits side by side with information from private individuals and organisations with both honourable and uncertain purposes. Knowledge about who is behind a website on the Internet is needed in order to evaluate the reliability and authority of the source.

Address

Where is the website published?

The address of the web page, the URL (Universal Resource Locator) is constructed according to the model `how://where/what`. The address `http://www.nai.uu.se/press/articles/ecas-keynote-speaker-issa/` can be divided up according to the pattern below.

"Http" shows that the document is transported using hypertext transfer protocol over the Internet, "www" that it is a world wide web document, "nai.uu" is the name of the server (sub domain) and ".se" stands for Sweden (top domain). "/press/" and "/articles/" state in which catalogue on the server the web page is held and "ecas-keynote-speaker-issa/" is the name of the web page itself.

By being able to read the top domain codes, you can usually see which country the web page is published in, or the type of organisation holding the web page. Often, the code gives an indication of whether the originator comes from a large organisation or a larger context.

However, some country codes and certain generic codes ("com", "org", "net") can be bought. Among them is the country code ".nu", from Niue Island, which is popular in Scandinavia.

If the information on the web page does not appear to correspond to the address, you should ask yourself how reliable the source is, such as a statement from Amnesty International about human rights in a country found on a page where the address ends in ".com" or ".net".

Links to list of top domains, both country codes and generic codes, can be found if you search the word "top domains" using the search engine Google. On the Internet there are also services where you can search for those who register an address to a website. This often includes address and other information. Links to these can be found via Google if you search for "whois".

While specific domain names come and go, top domains are quite stable. Political and other changes may however lead to new top domains. For instance, since the last edition of this text, the top domain ".ss" (South Sudan) has been registered, although it is not yet in use. At the time of writing the website of the Government of the Republic of South Sudan is found on <http://www.goss.org/>.

Using this part of evaluation of sources for information produced locally in Africa causes problems. The infrastructure is built up to differing extents in different parts of the continent, which means that the assumption that the websites of major institutions and governments have a country code as the top domain code and are located on a local web server is not always correct. The electricity supply is unstable in some countries. Local connections may be lacking between cities, and also between neighbouring countries. In order to provide a website that is constantly available, even major institutions choose to place their material on a commercial server outside Africa. The availability of space on a local web server may be limited, and while the price for the same may be relatively high locally, there is available web space for free or cheaply in both the USA and Europe. For instance, the official website of Congo: www.congo-site.com is registered at an address in France.

Contact

Can you contact the originator? Is there an email address? Is the email address an established institution? Is the email address located on the same server as the web page? Is there a postal address, a telephone number? Are the authors actually associated with the institution or organisation they state?

Sometimes there is no information on the web page about who is behind the information, in particular if the page is located deep down on a website. By cutting down an address section by section on a web page, you can move up the website and see whether there is information further up in the hierarchy. Examples: http://www.kari.or.ke/sites/default/files/Naivasha_agro-by_products_research_may2010.pdf

On the web page itself, there is a document in PDF format. There is no link to the originator. By removing the entire string after ".ke", you get to the website itself, which turns out to belong to the Kenya Agricultural Research Institute. If an email address is shown with another server address, you can try to get to the server in accordance with the analogy library@nai.uu.se — www.nai.uu.se, i.e. by changing the names before "@" to "www". Many institutions and organisations have personnel lists on their website where it is possible to confirm a person's association with the same.

When it comes to contact information on locally produced pages in Africa that refer to free providers of email services, this is not in itself an indication that the information is not reliable, or that the person is not an established authority within his or her subject. The price of both local email services and of space on web servers may be high, and an established free email service abroad may be more stable than a service from a local company that may not be operating in a few years. The problem with servers going down due to lack of electricity supply is also a reality. Also, many institutions in the public authority sector and the educational sector in African countries do not have the same access to computer resources as do similar institutions in Europe and the USA. Being able to determine whether a person is associated with an established institution through his or her email address is therefore uncertain. If the originator claims to be a researcher or to be associated with academia, this information can be confirmed via library catalogues or in databases. For example, Library of Congress has a large collection of published academic material from Africa. [Africa Journals Online](#) is a platform for over 400 academic journals published in Africa, which also offer opportunities for searching authors.

Why?

Is it advertisement, propaganda or fact?

In order to evaluate a web page, you must place it into context. Sometimes the purpose of the publication is clear, sometimes it is difficult to determine what is fact and what is opinion. Just as some publish in order to inform, others publish in order to disinform. Just as important as what is mentioned on the web page is perhaps what is not mentioned.

When using the websites of international organisations, for example, you should be clear about what is on their agenda. Organisations concerned with human rights do not always bring up positive sides of a country and official websites published in a country may perhaps be aimed at attracting investors, and therefore do not publish negative information. A conflict may be described in right–left terms by a local party, while the same conflict is described in ethnic terms by another party, all depending on ideological background and interests. Subjective information on the Internet is in itself an important source, if it can be evaluated on the basis of why it is published. It is also important to remember the context in which the web page is published. The view of the world around us varies, not just from a north–south perspective, but also between other poles such as Europe and the USA, which are normally regarded as having the same view of the world.

When?

Has the web page a date stamp? How often is the information updated? Is it of importance whether the information is old or new?

How frequently the information on a web page is updated can be an indica-

tion of the amount of resources the organisation/originator has. If it is a current subject that is being discussed, old information can be misleading.

How?

How did the inquirer arrive at that particular site? What other websites link to the web page, and to what websites does the web page have links?

By following how a web page is linked on the Internet, you can get an indication of how reliable the source is. If the website has a link from an established source, this in itself is a quality indicator. Many search services, such as Google, have a search function where you can see who has a link to a web page. With Google, you use the search string `link:web page address` in order to find those who have links to the web page. Example: `link:www.nai.uu.se`

Just as interesting as finding out who has links to a web page is to see what links are located on the web page itself. If a current or controversial subject is being dealt with, and there are no links to established sources within the same subject area, you should ask yourself why. A web page that has links both to and from bona fide sources must be regarded as more reliable than a web page that lacks these.

Comparing Sources

The multitude of sources on the Internet is an asset, but the amount of information also makes it difficult to determine what information is correct. There is contradictory information about nearly everything.

It is important to compare information from several sources. However, having confirmed a piece of information from two sources does not necessarily mean it is correct. The originators may have used the same primary source for their information. Check the extent to which the information agrees. Are there any long quotes that have the same wording? Do the figures correspond down the last decimal?

If the statistical values are far from each other, this does not mean that one source is incorrect, as the definitions used in the calculations may have been different.

It is also important to find out the resources behind the information and the form of the primary source. For example, is it a question of estimates or statistical calculations? If the source was originally printed and later published electronically, you must take into account both that all scanned text-interpreted material always has a percentage error, and also that it is not always the case that the printed version corresponds to the electronic one. Some picture material and appendices are also left out in electronic publications. This applies also to material that originates from established organisations. For example, the Swedish parliament, the Riksdag, has information on its website that the electronic version of the Swedish Code of Statutes may lack appendices.

Lost sources

A great problem with the dynamic Internet is that many web pages disappear after a while, or are moved within the website. Many countries are working on long-term storage of material published on the Internet, but even more countries do not. This applies in particular to material from the south. Much of the so-called grey literature that was previously published in printed format, for example pamphlets, reports and conference materials, is today often published as individual web pages, sometimes far down on the websites. With the help of projects such as [Internet Archive Wayback Machine](#) it is possible to locate these documents if the website address is there. Just as in the case of search engines, Internet Archive has an emphasis on the north/west in the archive, because the material is gathered using search robots.

With the Internet ageing, domain ownership will change over time. When an owner lets a domain expire there are often others wanting to buy it – for different reasons. This way, old references with links to a certain domain may still function technically speaking, when in fact the domain has a new owner with a different agenda and new (or similar) content. A whois search combined with a look in the Wayback Machine may be helpful in the evaluation.

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Web Resources

Most websites or search services mentioned in the text can be found on the Nordic Africa Institute's website www.nai.uu.se in the link collection [A Guide to Africa on the Internet](#). Many university and college libraries have summaries on their websites about evaluation of sources on the Internet. Search "evaluate Internet sources" using Google, and you will get good hits.

- Africa Internet Usage and Population Statistics – <http://www.internetworldstats.com/stats1.htm>
- A Guide to Africa on the Internet* – <http://www.nai.uu.se/library/resources/guidetoafrica/index.xml?Language=en>
- Africa Journals Online* – <http://www.ajol.info>
- Africa South of the Sahara. Selected Internet Resources* – <http://www.sul.stanford.edu/depts/ssrg/africa/guide.html>
- African Blog Portals, Aggregators and resource webs* – http://www.afrika.no/blog/African_Blog_Portals/index.html
- African Studies Internet Resources* – http://library.columbia.edu/locations/global/virtual-libraries/african_studies.html
- An A–Z of African Studies on the Internet* – <http://staff.lib.msu.edu/limb/a-z/az.html>
- Facebook* – <http://www.facebook.com>
- Flickr* – <http://www.flickr.com>
- Google* – <http://www.google.com>
- Google+* – <http://plus.google.com>
- Google Scholar* – <http://scholar.google.com/>
- Google Translate* – <http://translate.google.com>
- Government of the Republic of Rwanda* – <http://www.gov.rw/>
- Government of the Republic of Rwanda on Facebook* – <http://www.facebook.com/RwandaGov>
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- Government of the Republic of Rwanda on Twitter* – <http://twitter.com/RwandaGov>
- Government of the Republic of Rwanda on YouTube* – <http://www.youtube.com/RwandaGov>
- Government of the Republic of South Sudan* – <http://www.goss.org/>
- Internet Archive Wayback Machine* – <https://archive.org/web/>
- oAfrica - Tracking Internet Progress* – <http://www.oafrica.com/>
- Open Directory : Africa* – <http://www.dmoz.org/Regional/Africa/>
- Rwandapedia* – <http://www.rwandapedia.rw/>
- Social Searcher* – <http://www.social-searcher.com/>
- Technorati* – <http://www.technorati.com/>
- Twitter* – <http://www.twitter.com>
- YouTube* – <http://www.youtube.com>