

**DEVELOPING A WORLD WIDE WEB RESOURCE COLLECTION**  
**AND A GUIDE TO INTERNET RESOURCES**  
**ON THE MIDDLE EAST AND ISLAMIC STUDIES**

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In the era of digitized libraries and networked information resources, the skills and services of the area studies librarian are as needed as they have ever been.<sup>†</sup> The library's role in brokering intellectual access to information is becoming increasingly more important today than the traditional role of physically owning the material. Librarians' traditional skills and experience in selection, evaluation, organization and description of information resources are still, however, prerequisites in the new cyber-environment as well. The Internet and the World Wide Web (WWW) in particular have emerged, arguably, as viable and effective means to publish, retrieve and exchange information. Nevertheless, the absence of a governing body for this medium and the lack of standards for organizing, analyzing and describing its contents only add to the chaos already reigning on the Internet. As in the print environment, the abundance of online information, left unorganized, will only increase the user's confusion and frustration—regardless of how effective retrieval tools may be. Topical guides of networked resources, tailored to the dynamic needs of a specific audience, can be the librarian's contribution to the networked information process. The object of this discussion is the process of identifying, collecting, evaluating and organizing Internet resources in the specific area of Middle Eastern and Islamic studies.

### **1. Purpose and Criteria For Developing A Subject Guide**

The Internet's most obvious characteristic is being a means for wide scale diffusion and exchange of information in various formats and sizes. In the academic environment the Web has acquired a vital importance in the few years since its inception by providing new and improved opportunities for research and education and making the institution accessible from anywhere, anytime. Web support for courses and the curriculum is encouraged by administrators. Universities are getting all their courses (hours, place, links to course materials), directories, etc. up on the Web. Consequently,

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libraries are called upon to play a supporting role in providing other kinds of platforms for Web activities such as Web support for bibliographic instruction on the use of Web resources and in selecting and developing Web-based collections of resources. Libraries see their role also in teaching the core set of computer competency skills, including the use of word processing and spreadsheet software, as well as applying HTML and creating Web pages.

The popularity of the Web stems from the fact that it is easy to create a site and put it up for the public. There is an abundance of information on every conceivable subject on the Internet; but the value and worth of such information varies widely. Therefore, a measure of selectivity should be applied. The process of building a subject guide of Internet resources is similar, in theory, to developing a traditional collection or a topical bibliography. Resources assembled are judged for quality and substance, by applying parameters and criteria similar to those the collection development librarian takes into consideration when selecting in the traditional environment. Some of the criteria applied when choosing links for a subject guide are:

-Audience: It should be clear what audience the resource is meant for: academic, public, general, etc. If the intended audience is academic, is it undergraduate, graduate, post-graduate, or specialist. The selector probes the suitability of the resource and selects based on the knowledge of the constituency and audience catered to.

-Currency: Good resources are frequently updated and reviewed. Currency is usually indicated by a date on the front page. Periodical revisions, before each semester, at the minimum, include revising pages, updating links, and removing dead links. Updating links and other information is often an arduous and time consuming task, especially in non-commercial sites.

-Affiliation: If the resource and its author are affiliated with an institution or an organization, it is important to know the nature of it: commercial, religious, political, etc. This is to gauge any bias behind the information when determining the usefulness of the resources for inclusion.

-Expertise: This criterion should be applied to the developer or creator of the source. If the developer is not already well-known, is there an "about" section in the document, about the person or the entity in charge. Reputation of the source and developer counts.

-Content Merit: The question is whether the source offers an original, in-depth and new approach to the topic. A comparison with similar types of sources may answer the question. Do the sources appear to be reliable

or substandard? Is attention paid to details such as spelling, grammar and factual accuracy?

-Requirements/limitations: It should be noted that an increasing number of sites are fee-based or require a password and other access permissions. Many sources limit their access to a specific community (campus population only). In that case it might not be useful to a wider audience when included in your collection.

## **2. Exploring Resources on the Internet for Middle East and Islamic Subjects**

Today there are around 2000 search services on the Web (Search engines, Virtual libraries, Subject directories, etc.) covering over 50 million sites. Many offer automatically generated indexes, relevance ranked searching results, as well as various options that allow for more precise and controlled searches, using Boolean logic<sup>2</sup> for instance. The biggest problem, however, is noise, which refers to irrelevant search results mixed in with the jewels,

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<sup>2</sup> Boolean Basics:

AND, OR, NOT, and NEAR—if used correctly you will be looking at a dozen relevant sites instead of thousands of unrelated ones for the same search. The terms—part of a century-old system called Boolean logic—act as effective filters for finding just the hits you need on the Web. Most of today's search engines support some form of Boolean query, but not every service uses them. Check the help section of your favorite search engine to find out whether it allows Boolean searches.

### **AND**

The AND operator makes sure all the terms you request appear on the selected sites. If you type **Tripoli AND Libya** your search will not return pages about Tripoli, Lebanon.

### **OR**

Use OR to return pages that contain either of two terms. For example, **Istanbul OR Constantinople** will find pages that mention either or both names.

### **NOT**

Use NOT to ensure that certain words won't appear in your search selections. **Turkish NOT Ottoman.**

### **NEAR**

This term is used to find words located within a certain number of characters of each other. Not every service uses NEAR in the same way, and some don't offer it at all. For example, AltaVista uses it to find words

i.e., your search results in hundreds of links which you need to sift through to retrieve what is within scope.

The lack of uniform standards for organizing what is put on the WWW makes surfing for information a time-consuming undertaking. Aimless Web wandering and following links from site to site and guessing in the hope of getting the information needed is not always practical, especially when assisting someone in need of an immediate answer, right here and now. It is not usually the time for crafting elaborate queries. Browsing through subject guides and keyword searching using search engines can be an effective tool to discover information on a given subject, assemble it in a form of a handy guide, and make it easily accessible. It is crucial that this guide be

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within ten characters of each other, while WebCrawler lets you specify the number of characters.

#### Parentheses

Organize your searches even further by using parentheses. **NOT Lebanon AND Maronites** will return pages with **Maronites** in them; **NOT (Lebanon AND Maronites)** will avoid pages with both names.

#### AltaVista's Boolean Operations:

Keyword	Symbol	Action
AND	&	Finds only documents containing all of the specified words or phrases. Mary AND lamb finds documents with both the word Mary and the word lamb.
OR		Finds documents containing at least one of the specified words or phrases. Mary OR lamb finds documents containing either Mary or lamb. The found documents could contain both, but do not have to.
NOT	!	Excludes documents containing the specified word or phrase. Mary AND NOT lamb finds documents with Mary but not containing lamb. NOT cannot stand alone—use it with another operator, like AND. For example, AltaVista does not accept Mary NOT lamb; instead, specify Mary AND NOT lamb.
NEAR	~	Finds documents containing both specified words or phrases within 10 words of each other. Mary NEAR lamb would find the nursery rhyme, but likely not religious or Christmas-related documents.

only one of the tools relied upon in the daily library work, to be used when appropriate alongside other tools.

There are many tools available to explore the Internet for the purpose of building such a guide. Three types of tools are examined here for the subject “Middle East and Islam,”: Internet virtual libraries or general subject directories, Internet subject guides, and search engines. The terms Virtual Libraries, subject directories and subject guides are often used by many indiscriminately. As the Internet grows and indexing techniques develop more sophisticated differences between these terms become clearer.

#### **a. Internet Virtual Libraries**

A Virtual Library (VL) is a collection of links of Internet resources, organized by subject categories, and preferably compiled and evaluated by specialists who are familiar both with the topic and how people would seek information within it. The purpose of this “links library” or “links index” is to help searchers navigate through a vast number of selected resources. Subject categories represent systematic trees, e.g. organized hierarchically, to make it much easier to navigate from the general to the specific.

More convenient than search engines, VLs remain available and do not present endless delays due to high demand during peak hours. Their searchable domain however is limited, since the coverage tends to be broad, and quality is dependent on the subject expertise and Internet experience of those doing the selecting. With millions of contributors, VLs tend to be less controlled. A search in Yahoo on “Middle East” or “Islam” yields hundreds of categories and site matches (or pointers), many of which have little or nothing to do with the topic (For Example: under the category Social Science: Middle East Studies, the following item also appears: Regional: U.S. States: New York: Cities: *Eastchester*: Education: *Eastchester Middle School*). Compounding the problem of relevancy, the searcher will find that a number of pointers, or links, will be out of date or defunct. The search also produces a sizeable number of related e-mail discussion groups, Usenet newsgroups, etc. A Search for the term “Middle East” in *The WWW Virtual Library* (<http://celtic.stanford.edu/vlib/Overview.html>), a so-called distributed subject catalog, produces little more than a link to the Web page of the Center for Middle Eastern Studies at the University of Texas. There is at present no listed “item” under Islam in *The WWW Virtual Library*. It is clear that the coverage of the subject is not fully developed in this virtual library. Further searching by country in the same WWW Virtual Library turns up a listing of several Middle Eastern countries (but not all of them), with scant and irregular annotations.

Although the use of Boolean operators (“and”, “or”) merely reduces the amount of data retrieved and increases the relevancy of hits, it still retrieves irrelevant items. The inherent problem with automated indexing and retrieval of information is often a lack of precision and fuzziness of results, especially when executing fairly comprehensive searches. Therefore, for more comprehensive searches it is crucial to investigate a diversity of searching tools. The following Virtual libraries and general directories were probed for the subject:

**Argus Clearinghouse** (formerly known as the Clearinghouse for subject-oriented Internet resource guides)

<http://www.clearinghouse.net/>

This resource can be considered the equivalent of a bibliography of bibliographies. It is a catalog that provides subject access to specialized Web, gopher, and ftp sites for most subjects which can be found on the Internet. Searches can be done on the full text of all guides. It can be browsed systematically by topic. A search on “Middle East or Islam” using Search/Browse mode yields 12 related guide titles, less than half of which deal with the search subject in general. The rest are narrower in focus: Guide to Information on Oman in the Internet, Bahrain Online, etc.

#### **Galaxy**

<http://galaxy.Einet.net/galaxy.html>

Galaxy is one of the largest databases of Internet resources. It is a guide to worldwide information and services, which indexes only pages actually submitted. Although business oriented, a variety of subjects are covered, including Middle East and Islam. It allows searches by “All text, Title text, and Link text.” The display of results is one of the best around: in addition to the link it displays an “Excerpt” paragraph about the resources, “Frequent Words” used and other detailed technical data. There is adequate reviewed information about a host of middle Eastern subjects.

#### **Global Network Navigator (GNN)’s Whole Internet Catalog**

<http://www.avaloncity.com/info/fprefect/matrix/whole.htm>

GNN is a subject index with 12 major subject areas, each divided into specific collections of documents (there are 3 levels of organization). Subject areas also list popular Usenet newsgroups with relevant content. Documents are gathered from various Internet sources such as What’s New lists, Usenet newsgroups, and user-suggestions. These documents are then sorted into the appropriate subject categories. The Catalog boasts over 600 rich links, and new pointers are added at the rate of about 10 or 20 a week. However, it doesn’t offer any search services.

**Infomine**

<http://lib-www.ucr.edu/>

Self-described as “Scholarly Internet resource collections,” this guide is intended for the introduction and use of Internet/Web resources of relevance to faculty, students, and research staff at the university level, maintained at the library of the University of California, Riverside. It is being offered as a comprehensive virtual library and reference tool containing 10,000 Internet/Web resources including databases, electronic journals, electronic books, bulletin boards, listservs, online library card catalogs, articles and directories of researchers. A subject search in the category Government information retrieves several entries available locally (FBIS: Foreign Broadcast Information Service) and mirrored sites, all very well reviewed.

**Internet Public Library**

<http://www.ipl.org/>

IPL is offered by the University of Michigan School of Information. Its Ready Reference Collection of about 14,000 items, each selected, cataloged and described by a member of the IPL staff, contains links with descriptive annotations for selected Internet sources. It can meet general and undergraduate needs.

**Magellan (also known as McKinley’s Internet Directory)**

<http://www.mckinley.com/>

Magellan is a subject directory of over 100,000 Web sites. It is maintained by a group of international publishers, technologists and information specialists offering star ratings and brief descriptions for Web sites. It also includes a search engine for easy browsing. Although its rating system is useful for selecting quality sites the database is far from comprehensive. Searching can be limited to reviewed sites only and by “Green light,” a unique feature that blocks adult contents.

**NetGuide (CMP Media Inc.)**

<http://www.netguide.com/>

NetGuide provides a database of thousands of reviewed sites, searchable by subject categories or keywords. Excellent reviews are offered. A search for “Middle East” yields 59 links and for “Islam” 49.

**OpenText (web, gopher, FTP sites; no newsgroups)**

<http://www.opentext.com/>

OpenText has varied search capabilities: “Search the World Wide Web for pages that contain... this exact phrase” or “Search this Site for pages that contain...” It has three different options for your search: simple search,

power search, or weighted search. The site itself has no entries for the phrase Middle East.

### **The University of Texas-Middle East Network Information Center (UT-MENIC)**

<http://menic.utexas.edu/menic.html>

Launched in 1993, UT-MENIC includes gopher and World Wide Web (WWW) interfaces. This is a true virtual library of information specifically on the Middle East. Although its collection of files is a small representation of the documents available on the Internet, from a research and teaching point of view, the information presented is more valuable than what is available at most other sites. Main **Subject Categories** are 8: ancient history, ancient history/Archaeology, Maps Travel and Regional information Arts/Culture, News Media/News Groups, Business/Finance/Economics, Religion, Government/Country Profiles, Oil, Energy, and Natural Resources. **Additional Research Resources** include: Conferences, Middle East Centers and Institutes, Internet/networking, Organizations/associations, K-12 Educational Resources, Reference, Libraries/electronic Publishing, Search the Internet. The organization is simple but highly practical. In addition, there are links to other gopher/WWW sites in the Middle East and to other Middle East studies centers.

### **The WWW Virtual Library**

<http://celtic.stanford.edu/vlib/Overview.html>

This site is made up of more than 50 subject indexes that are located at sites distributed around the world. It currently offers a Category Subtree, Library of Congress Classification (experimental), Top Ten Most Popular Fields (experimental), and Statistics (experimental). It includes sections for African Studies, Asian Studies, Middle East studies (which is a link to University of Texas Center). The coverage is generally spotty and not comprehensive.

### **Yahoo**

<http://www.yahoo.com>

Yahoo is more comprehensive than most subject directories, although quality is not always consistent and links are sometimes out of date. It includes short descriptions of the sites. Yahoo, like many other directories, collocates several search engines and tools such as Excite, Infoseek, Lycos, Hotbot, etc., and organizes them by categories: Subject specific, White and Yellow pages, Software. Most of these search tools combine powerful search capabilities, allowing retrieval and indexing of documents throughout the Web. Although most of them do include a large number of links to the topic



at hand, many of these links retrieved are not equally relevant and, due apparently to the lack of maintenance, many links are obsolete. Coverage of the Middle East and Islam is adequate, certainly useful for preliminary searches for general Internet resources. Returns on searches vary from zero to several hundred.

#### **b. Internet Subject Guides**

Subject directories are in essence virtual libraries but tend to be more focused and include more annotations and evaluations of Internet resources on a given topic. The coverage varies widely from one directory to another in terms of the number and kinds of resources listed and their evaluation, although most claim to include the best links. One of the problems related to subject oriented directories is their use of natural language instead of a controlled vocabulary. Controlled vocabulary is important for retrieval purposes, since disciplines and sub-disciplines have their peculiar jargons. The lack of a standardized vocabulary could complicate the search process, turning it into time-consuming guesswork. A search for Leptis Magna in one of the services returns: leptis: 1,126; magna: 172,637 appended with a not very helpful “Tip: Don’t be alarmed by a large number of results. All documents containing at least ONE of the terms in your query are counted, but the first few documents are better matches.” More and more directory organizers are using standard classification terms, such as the Library of Congress subject classification. The best subject directories are selective when it comes to inclusion and exclusion. Ideally, annotations based on the serious review of individual resources enhances the value and credibility of the directory. Well-maintained services will often include a brief summary, or Abstract, and other information to assist users in identifying the most useful materials.

Most directories and guides relevant to the Middle East and Islam are affiliated with businesses or research and educational institutions. Businesses based in the Middle East and North Africa constitute the majority of Web site owners and developers. The following reviews include samples of specialized subject directories and some common mainstream ones:

#### **1001 sites, The Arab Internet Directory**

<http://www.1001sites.com/>

#### **Arab World Online**

<http://www.awo.net/>

1001 Sites.com is a service of Multitasking On Line Corp. and is licensed to Arab World Online. Arab World Online in turn is a joint venture between the National U.S.-Arab Chamber of Commerce (NUSACC) and Multitask-

ing Online, a Washington D.C.-based web developer/Internet marketing firm. It offers “access to virtually every aspect of the Arab world;” however, its database is still small and most entries are business oriented. Created on the principal of providing “value-added content,” its reviews are not particularly rigorous. Results listed are also identified by subject categories without a percentage figure as to how relevant they are. In 1001 Sites keyword searches need to be narrowed down by terms from a “category” menu. A keyword search for airline(s) in the category “travel” retrieves 4 links. The same search will yield zero results if not defined by the term travel.

### **Arab Internet Directory**

<http://www.arabview.net/aid/>

Developed by The ArabView Network, this directory currently includes over 1000 reviewed entries. Many of its 15 subject categories have only a small number links. A search on Ramadan (as a keyword) returns no entries; and Hajj has three matches. The result of the search is a list of matching AID Categories followed by a list of matching AID Web Sites. It allows keyword and Boolean searching, the latter limited to AND / OR.

### **ArabiaWeb**

<http://www.arabiaweb.com/>

ArabiaWeb is an Arab World Internet Directory and search engine by Arabia.On.Line. It promotes itself as “the first destination for Arab world news, business, and culture on the Internet,” but at this time it covers less than half of the Arab countries. Currently it has six categories called “channels,” providing News, Business, Technology, Living, Culture and Community. It features a combination metasearch function Web guide, ArabiaWeb, that includes a directory of reviewed and classified Arab world Web sites. It boasts some dubious statistics such as 1 million hits a week, 63% of its user are business oriented, about 56% of the people accessing Arabia.On.Line come from the United States; the rest come from Europe (19%), the Arab World (14%), the Far East and the rest of Asia (11%).

### **Arabist Online**

<http://www.arabist.com/>

Arabist Online is an Arab Search Engine and Web authoring company by Al-Shorouq for Computer Services Inc. It was established January 1997, in Amman, Jordan. It intends to include companies, organizations, and institutions in the Middle East that are present on the Internet. Links retrieved are mostly businesses in Jordan and some other Arab countries.

**ArabNet**

<http://www.arab.net/welcome.html>

This site provides comprehensive online access primarily to resources dealing with countries in the Middle East and North Africa (Currently 1,770 pages). It is owned by ArabNet Technology (ANT), part of the Saudi Research and Marketing Group, publisher of leading newspapers and magazines in the Kingdom of Saudi Arabia including *Asharq Al-Awsat*. Although mainly commercial in nature, it includes a wealth of general information on individual countries. Information is divided into eight categories: Overview (statistics and short facts) History, Geography, Business, Culture, Government, Transport, Tour Guide. Its searching capabilities are very good, by way of Excite search engine, and it uses natural language (English). ArabNet is the winner of the title of best Arab site on the Internet ahead of Sakhr, according to *al-Ḥayāt* newspaper (6 Nov. 1997)

**Ayna?** (Arabic for Where?)

<http://www.ayna.com/index.html>

Published from Chelmsford, MA., by Engineering Graphical Solutions (EGS), Ayna? is a pioneer in the Web Arabization efforts. This well-structured Arabic language guide and search engine offers 100% Arabic support both in browsing and searching. Its subject guide has 14 categories with linked sub-categories of Arabic and related material. The search engine uses a variety of Arabic lexical rules to retrieve the best match. Ayna's hierarchical structure (support for CP-1256 and ISO-8859-6) allows a larger number of users to access it at the same time. It has an index-based search engine Nazrah [Nathra] (below). You need to run your browser under Arabic Windows, or download Sakhr's Sindbad <<http://www.Sakh.com/>> or Alis' Tango <<http://www.alis.com/>>.

**Iran Online**

<http://iranol.com/>

Iran Online provides headline news "on time" as well as a fairly comprehensive list of Iran-related sites. The pages are well organized, but documents are in English only. It also provides a simple search function for the site itself.

**Maghreb Net**, Morocco, Maghreb, Arabic, Chat

<http://maghreb.net/>

Maghreb Net is a growing subject guide that includes subjects related to North Africa and to a lesser degree, the Middle East, although it claims that it is an online guide to Africa, the Maghreb and the Middle East. Hierarchically organized, it contains over 175 different categories and sub-

categories (12 main subjects), created from submissions received through The Paparazzi web submission engine, Submit-It, or selected by the web-master.

### **The Middle East Internet Pages**

<http://www.middle-east-pages.com/me.html>

This guide is developed by NetComm for the Dubai Promotion Board. It is mostly a business-oriented subject and search site, specifically comprehensive for business or services related to the United Arab Emirates. Its subject structure is similar to that of Yahoo. Contents, however, are limited and some subject categories are completely empty (no links).

### **The Middle East North Africa Internet Resources**

<http://www.cc.utah.edu/~jwr9311/MENA.html>

This guide “was created to serve the needs of scholars, students, and interested individuals in finding and using Internet resources dealing with the Middle East. The Middle East is defined as broadly as possible.” Developed by Joseph W. Roberts, Department of Political Science, Middle East Center, University of Utah, this is merely a collection of links. There are three broad categories further subdivided in subcategories: Academic Disciplines, which is general and not related to the Middle East; Nations and States of the Middle East; Regional Services that cut across specific country boundaries or provide regional information; Religion and Special Services (Bibliography, the Internet, etc.)

### **al-Murshid**

<http://www.murshid.com/>

al-Murshid is a searchable, browsable hierarchical index of the Internet on the Middle East in 13 categories: Arts and Literature, Business and Economy, Computers and Internet, Countries and Regions, Education, Entertainment, Health, News and Media, Politics and Law, Recreation and Sports, Reference, Sciences, Society and Culture. It allows searching by category, using natural language either in English, Arabic, or both. The number of items indexed is still fairly limited and sites tend to be business oriented in nature. A search for Amman, for example, produces no matches for site type Arabic and 15 matches for site type English and All.

Table 1

**Subject Directories, Guides and Virtual Libraries Evaluated for Relevance to Middle East and Islamic Studies:**

\*=Poor    \*\*=Acceptable    \*\*\*=Good    \*\*\*\*=Outstanding

<i>Virtual Library or Subject Guide</i>	<i>Web Documents</i>	<i>FTP, Listservs, Usenet, etc.</i>	<i>Vernacular Language</i>	<i>Speed &amp; Clarity</i>	<i>Overall Rating</i>
Arab World Online/ 1001 sites, Arab Internet Directory <a href="http://www.arabview.net/aid/">http://www.arabview.net/aid/</a>	yes	no	no	**	**
Arabia Web <a href="http://arabiaweb.com/">http://arabiaweb.com/</a>	yes	no	no ("Arabic soon")	**	***
Arabist Online <a href="http://www.arabist.com/">http://www.arabist.com/</a>	yes	no	no	*	**
ArabNet <a href="http://www.arabnet.com/">http://www.arabnet.com/</a>	yes	yes	via CountryLink	***	***
Argus Clearinghouse <a href="http://www.clearinghouse.net/">http://www.clearinghouse.net/</a>	yes	yes	no	****	**
Ayna? <a href="http://www.ayna.com/">http://www.ayna.com/</a>	yes	yes	yes:Arabic	**	***
Galaxy <a href="http://galaxy.Einet.net/galaxy.html">http://galaxy.Einet.net/ galaxy.html</a>	yes	yes	no	***	***
Global Network Navigator (GNN's Whole Internet Cat.) <a href="http://www.avaloncity.com/info/fprefect/matrix/whole.htm">http://www.avaloncity.com/info/ fprefect/matrix/whole.htm</a>	yes	yes	no	**	**
Infomine <a href="http://lib-www.ucr.edu/">http://lib-www.ucr.edu/</a>	yes	yes	no	***	**

<i>Virtual Library or Subject Guide</i>	<i>Web Documents</i>	<i>FTP, Listservs, Usenet, etc.</i>	<i>Vernacular Language</i>	<i>Speed &amp; Clarity</i>	<i>Overall Rating</i>
Internet Public Library <a href="http://ipl.org/">http://ipl.org/</a>	yes	no	no	**	**
Iran Online <a href="http://iranol.com/">http://iranol.com/</a>	yes	no	no	***	***
Magellan <a href="http://www.mckinley.com/">http://www.mckinley.com/</a>	yes	yes	no	**	***
Maghreb Net <a href="http://maghreb.net/">http://maghreb.net/</a>	yes	yes	no	***	***
Middle East North Africa Internet Resource Guide <a href="http://www.cc.utah.edu/~jwr9311/MENA.html">http://www.cc.utah.edu/ ~jwr9311/MENA.html</a>	yes	yes	no	***	****
Middle East Internet Pages <a href="http://www.middle-east-pages.com/me.html">http://www.middle-east- pages.com/me.html</a>	yes	no	no	*	*
Murshid <a href="http://murshid.com/">http://murshid.com/</a>	yes	no	Arabic	*	**
NetGuide <a href="http://www.netguide.com/">http://www.netguide.com/</a>	yes	yes	no	**	*
OpenText <a href="http://www.opentext.com/">http://www.opentext.com/</a>	yes	yes	no	***	*
UT-MENIC <a href="http://menic.utexas.edu/menic.html">http://menic.utexas.edu/menic.html</a>	yes	yes	no	****	****
WWW Virtual Library <a href="http://celtic.stanford.edu/vlib/Overview.html">http://celtic.stanford.edu/vlib/ Overview.html</a>	yes	yes	no	***	***
Yahoo <a href="http://www.yahoo.com/">http://www.yahoo.com/</a>	yes	yes	no	***	***

Subject guides tend to include a smaller number of documents than most automated search engines. An effective search will necessarily probe search engines in addition to subject guides.

### **c. Search Engines**

Also called “spiders” or “crawlers,” good search engines constantly visit web sites on the Internet in order to index and catalog web pages automatically. Metasearch engines (Meta-Crawler, and Savvy Search) take one query and send it to several major search sites and display the results in a single list. The results of various experiments indicate that in addition to the three top services, Alta Vista, Excite and Infoseek, several more can be probed with varying results for subjects related to Middle East and Islamic studies. The following comparison of search engines takes into account the relevance of search results to the subject. It becomes clear after a few searches that each engine covers a somewhat different part of the Web, although many claim to include the best. For the sake of comprehensiveness, the use of more than one service for a given search is perhaps necessary. For larger engines, such as Alta Vista one needs to spend time learning its peculiar search syntax, to avoid being inundated with a huge number of resulting sites.

#### **AltaVista**

<http://altavista.com>

Arguably, AltaVista is the most comprehensive index of documents on the Web. Although it is very thorough, it often turns up so many matches that it is impossible to pursue them all. Thus, one needs to be very specific in search criteria. Any search on Middle East or Islam turns up thousands of hits. It indexes all words in any document published on the World Wide Web or in Usenet discussion groups. The best matches appear at the top of the list. It has an “Advanced Search” feature, search by date, detailed searches that include (or exclude!) any combination of words or phrases. It is seemingly the fastest. The AltaVista database can be updated every few days, a feature which reduces the likelihood of retrieving dead URLs. A unique feature of the “Simple Query” page is the capability to show how many other pages on the Web contain links to your own Web site.

#### **ArabSeek**

<http://www.arabseek.net/>

ArabSeek is a basic search engine created by al-Nadeem computing company to provide up-to-date information related to the Middle East available on the Internet from World Wide Web pages, Gopher and FTP sites. Although it does not allow Boolean searches, searches can be formulated as

“Match all the words” or “Match some of the words.” Links retrieved include sometimes a summary, composed usually by the submitting parties themselves. There does not seem to be any particular order in the results displayed.

**Excite**

<http://www.excite.com/>

Excite is a comprehensive search tool, it indexes more than 50 million Web pages, 140,000 Web site listings, and thousands of Usenet postings.

**Infoseek**

<http://www.infoseek.com/>

Voted by PC Computing magazine’s editors as the most valuable search tool for 1995, Infoseek offers a fee-based version and a free one. It features plain English searching. Infoseek has merged four search engines into one integrated tool that is described as “accurate, current, comprehensive, and superfast.”

**Lycos**

<http://www.lycos.com/>

Lycos is one of the biggest and most popular search engines and is fast becoming the leader in the field. It has a very large index that claims to include 90 per cent of the Web. The index is selective and does not include all words of a Web page. Elements included are the title, the headings, and the most significant 100 words. It has been often unavailable during peak and even regular work hours.

**MidEast Net Search Engine**

<http://www.mideastnet.com/>

Developed by The Arab & Middle East Business Gateway, a business promoter in Cairo, this site includes mostly businesses and large contracting companies. Its engine has some basic interactive features which include such parameters as type of matches (words, whole or truncated) and case sensitivity. This service is not comprehensive; even for businesses and companies the database is still very limited.

**Nathra [Nazrah]**

<http://www.ayna.com/search/>

This engine searches only the subject guide Ayna? mentioned above and indexes, analyzes, sorts HTML and text documents written in Arabic and any other language. One needs to run an Arabic-capable browser under Arabic Windows in order to search with this engine, since it is fully in Arabic both in browsing and searching mode.



### Northern Light Search

<http://nlsearch.com/>

Northern Light offers web-searching (simple and advanced) for both site content and full text of articles from a wide range of popular and scholarly magazines and journals through InfoTrac. It is perhaps the most comprehensive and efficient search service.

### Webcrawler

<http://webcrawler.com/>

Webcrawler is easy to use, smaller than Lycos, but more often available. It indexes every word of a Web page; titles, as well as content and is fast, and relatively easy to use. However, it returns a ranked list of hits with no descriptions. It has been absorbed by America Online.

**Table 2**

**Search Engines Evaluated for Relevance to Middle East and Islamic Studies:**

*\*=Poor    \*\*=Acceptable    \*\*\*=Good    \*\*\*\*=Outstanding*

<i>Search Engine</i>	<i>Boolean Allowed</i>	<i>Results Sorting</i>	<i>Vernacular Language</i>	<i>Speed &amp; Interface</i>	<i>Overall Rating</i>
AltaVista <a href="http://altavista.com">http://altavista.com</a>	yes	yes	no	***	***
ArabSeek <a href="http://www.arabseek.com/">http://www.arabseek.com/</a>	no	no	no	**	**
Excite <a href="http://www.excite.com/">http://www.excite.com/</a>	yes	yes	no	***	**
Infoseek <a href="http://www.infoseek.com/">http://www.infoseek.com/</a>	no	yes	no	***	***
Lycos <a href="http://www.lycos.com/">http://www.lycos.com/</a>	no	yes	no	***	**
MidEast Net Search <a href="http://www.mideastnet.com/">http://www.mideastnet.com/</a>	no	no	no	*	*

<i>Search Engine</i>	<i>Boolean Allowed</i>	<i>Results Sorting</i>	<i>Vernacular Language</i>	<i>Speed &amp; Interface</i>	<i>Overall Rating</i>
Nathra [Nazrah] <a href="http://www.ayna.com/search/">http://www.ayna.com/search/</a>	no	no	Arabic only	* * *	* * *
Webcrawler <a href="http://webcrawler.com/">http://webcrawler.com/</a>	yes	yes	no	* * *	**

### Adding value to the selected collection

**1- Review:** Resources gathered through the different searches need to be checked against the previously set criteria for inclusion or exclusion in the guide being developed. Each resource is reviewed for appropriateness. In many instances resources offer little originality or are put together in less than a meaningful way to be considered. All this sounds like applying familiar collection development criteria, which in fact it is, except that the format is different.

**2- Description:** This is an important added-value factor in the process of forming the guide. A description, objective and subjective, serves to provide information as to the contents of the item retrieved and its quality, and physical and technical characteristics, e.g., the support needed for usage (special browser capability, particular software, video and audio support). The description and annotation of individual resources are certainly a time-consuming process.

**3- Organization:** The way the guide is organized depends on the needs of the particular audience targeted. The distribution of resources by topic, hierarchically, chronologically, and geographically, should parallel the overall structure of the web site in order to provide maximum efficiency. The main page constitutes the table of contents which provides the most general overview of the hierarchy, including internally-linked documents (pages) tables of contents. It is important to determine what content goes where. Pages expand over time, and for really large sets of documents the presentation is key. The concept of “Storyboarding”—borrowed from movie-making—is often used in Web site development. It consists in providing an overall structure to the film that permits the movie director and staff to know where each individual shot and scene fits in the movie overall.

**4. Design:** The Web designer has to make the page logical and attractive. Users go to the Web more often to seek facts than to have an experience, although most of the time on the Web may seem like an experience; therefore, the designer of the site is the one who determines what that experience

should be like. Many designers try to make every single page as graphically attractive as possible, giving less thought and consideration to the user's overall experience, which derives from the combination of contents, endless waiting for information during downloads of graphics, images, backgrounds, etc. Visitors are usually reluctant to tolerate graphic file-size over 30 to 40 Kilobytes (jpg's) or over 10 to 15 Kilobytes (gif's) and text of pages over 100 to 150 kilobits.

\* \* \*

The Internet might dramatically change publishing as it is known. It is no coincidence that official figures show that trade book sales, especially hardcover, have dropped by about 10% in the last two years.<sup>2</sup> It might be that electronic publishing in the future will assume a central role in the academic environment, as authors bypass publishers by publishing their work themselves on the Internet and charging the user directly. With printing optional, the problem of storage space in library buildings could be reduced.

As the Internet gains popularity in MidEast and North African countries, several governments are clamping down on what they perceive as immoral or subversive on the Web. Internet providers are required to set up software blockades to censor material. A case in point is Etisalat, the only service provider to the seven states of the United Arab Emirates. Through a "proxy cache server," sites that are deemed immoral are cut out. The problem with this is that not only have some users there developed skills to bypass the blockages anyway, but serious research is impeded. If the software is programmed to block keywords such as sex, breast or nude, information about Middlesex county in the United Kingdom, breast cancer research, or even a recipe for chicken breast are also blocked.<sup>3</sup>

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<sup>2</sup> Ken Auletta: "The Impossible Business." In: *The New Yorker* (Oct. 6, 1997): 50–63.

<sup>3</sup> For a narrative on the Internet in the Middle East see: Shuji Hosaka's "The Internet and the Middle East Studies," In: *Time Review* (Spring 1997). The essay deals rather with the Internet and Internet services in the Middle East, and not much with the Internet and Middle East Studies.