CHAPTER 4

Results and Interpretations

Introduction

The results of the analysis of data and the interpretations of the data are presented in the following categories:

1. Descriptive statistics of the sample as a whole.
2. Descriptive statistics for Islamic information sources on the aspect of value added Islamic instructional multimedia uses.
3. Descriptive statistics on the instructional design method implementation.
4. Comparison between the sources usage.
5. Comparison between the search engine usage.

Descriptive statistics of the sample as a whole

The statistics for the sample as a whole were examined in terms of frequencies, percentages, means, modes, medians, standard deviations, minimums and maximums.

As shown in Figure 2, the whole sample consisted of 100 MIIRM sources, seventy percent (70%) were Islamic educational WWW sites, six percent (6%) were electronic books sources (EB), five percent (5%) were electronic periodicals sources (EP), seven percent (7%) were online databases providers (DB), two percent (2%) were encyclopedias online (E online) and ten percent (10%) were Islamic Newsgroups and chat group (News). Therefore, the majority of the MIIRM sources were WWW.

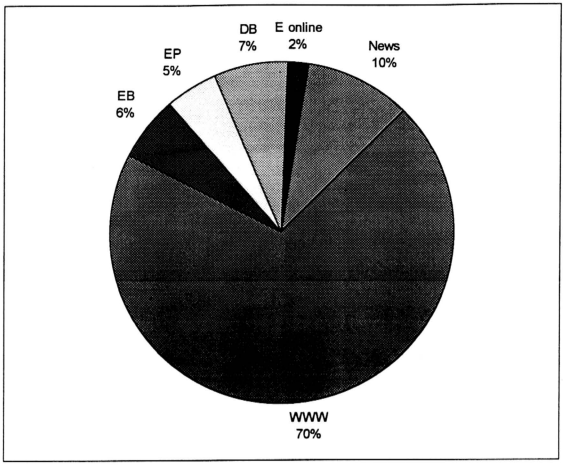

Figure 2 : Frequencies, Percentage and Mode of the Whole Sample.

As shown in Figure 3, the majority (72%) age of the MIIRM sources was more than 12 months in the Internet. Where as the rest (28%) are less than 12 months.

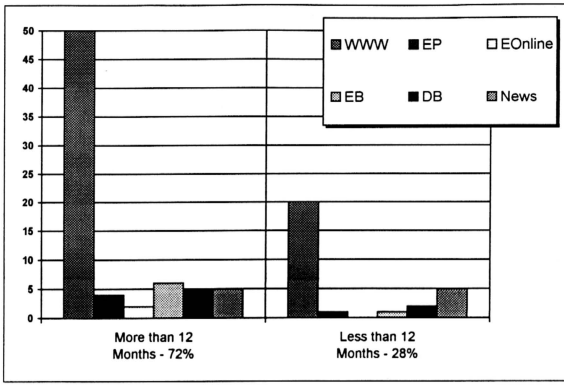

Figure 3: The age of the MIIRM in the Internet.

As shown in Figure 4, the physical location (Host) of the MIIRM was (59%) in Islamic countries (OIC), (41%) in other countries.

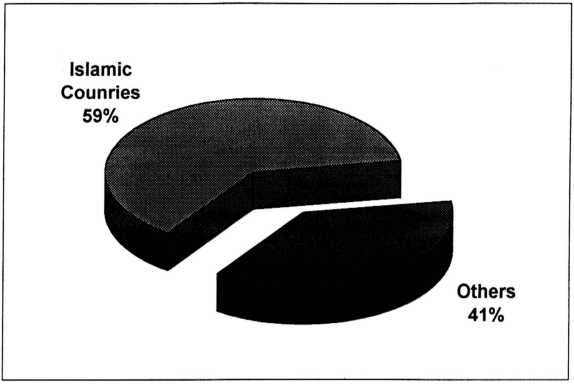

Figure 4: The MIIRM hosts in the world.

As shown in Figure 5, the locations of the worlds Internet hosts. The majority of the hosts were in USA and Europe and there is a very limited number in the OIC countries (This Figure provided by the Internet Society, 1998).

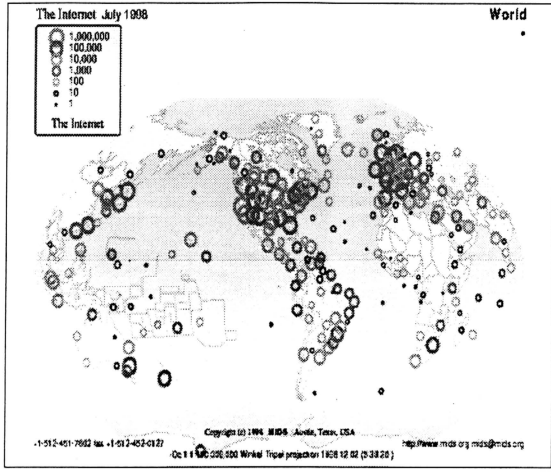

Figure 5: The world Internet Hosts.

As shown in table 1. Number of Internet Hosts in the World since July 97 till January 1998 (Provided by Network Wizards 1997, 1998).

Table1

Number of Internet Hosts in the World since July 97 till January 1998, general data

Region	July 1997	January 1998
North America	12,519,457 (64.0%)	21,462,773 (72.3%)
Europe	4,424,604 (22.6%)	5,139,495 (17.3%)
Asia	1,433,853 (7.3%)	1,778,786 (6.0%)
Australia	863,289 (4.4%)	834,744 (2.8%)
South America	127,656 (0.6%)	184,549 (0.6%)
Africa	123,414 (0.6%)	128,389 (0.4%)
Central America & The Caribbean	45,814 (0.2%)	56,832 (0.2%)
Pacific Ocean	849 (0.0%)	1,642 (0.0%)
World TOTAL *	19,540,325 (99.7%)	29,669,611 (99.6%)**

* including hosts (.net, .org) not linked to any specific country

** 52% growth between Jul 97 and Jan 98, or 8.7% month

As shown in Figure 6, the majority (76%) of MIIRM was sponsored by governments, NGO and the Islamic communities. Only (24%) were personally sponsored by individuals.

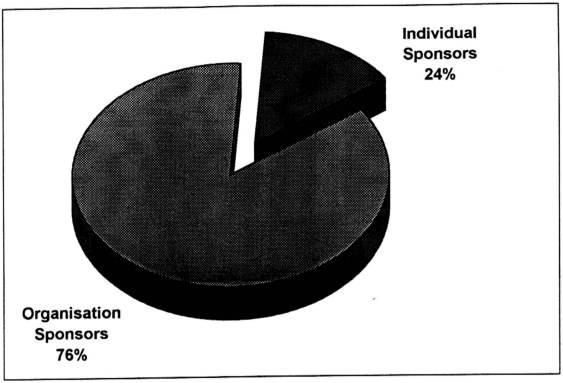

Figure 6: The MIIRM sponsors.

As shown in Figure 7, a large proportion of the MIIRM sources (59%) were visited more than 2000 per day. (The number 2000 hit/day is considered high by all the MIIRM sample of this study.)

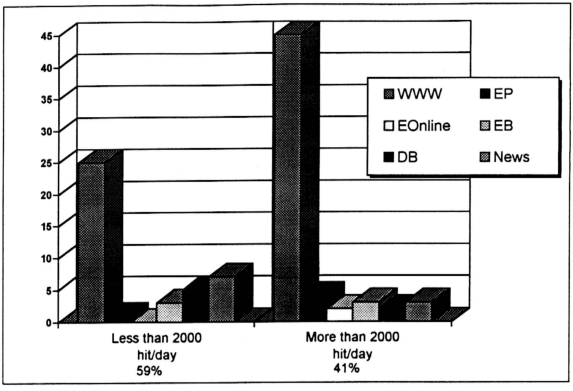

Figure 7: The MIIRM number of visitors measured by Hits/day.

As shown in Figure 8, the MIIRM can be located mainly by 2 or less of the major Internet search engines (57%). The other (43%) can be located by more than 2 of the major Internet search engines.

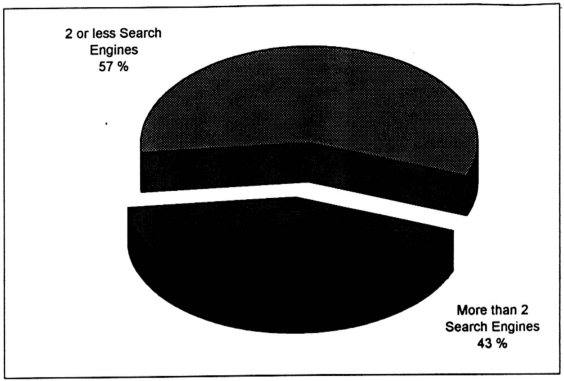

Figure 8: The MIIRM locations in the Internet search engines.

As shown in Figure 9, the major reasons (33%) of MIIRM that can not be located by more than 2 search engines is because of removal.

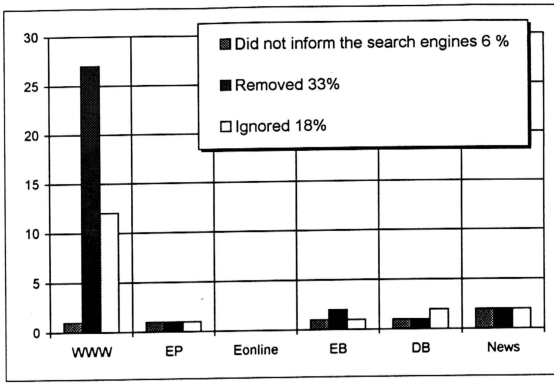

Figure 9: Reasons of the MIIRM dislocation in the search engines.

As shown in Table 2. (Provided by Lawrence, Steve and C. Lee Giles, 1998) has measured effectiveness with which various search engines indexed an estimated 320 million pages comprising the WWW universe in mid-December 1997:

Table 2

The six most effective WWW search engines (Dec 1997)

Search engine	Overall WWW coverage	percent of invalid links	Estimated valid WWW coverage
HotBot	34%	5.3%	32.2%
Altavista	28%	2.5%	27.3%
Northern Light	20%	5.0%	19.0%
Excite	14%	2.0%	13.7%
Infoseek	10%	2.6	9.7%
Lycos	3%	1.6	2.9%

As shown in table 3, frequency of occurrence of document sources on Islam (with keyword Islam or Islamic) in 6 major WWW search engine databases, for the period from September to December 1998.

Table 3

Frequency of occurrence of document on Islam.

Site database	Date of access	Total of documents	Total documents on Islam	Islam : non Islam document approximate ratio
Excite	11 Sep.	50 million	53,013	1: 944
	11 Dec.	63 million	102,499	1: 615
Altavista	14 Sep.	140 million	440,660	1: 318
	14 Dec.	155 million	793,600	1: 195
Lycos	16 Sep.	2 million	16,600	1: 120
	16 Dec.	4 million	31,300	1: 128
Infoseek	18 Sep.	8 million	181,401	1: 44
	18 Dec.	24 million	389,573	1: 62
Hot Bot	21Sep.	160 million	13,660	1: 11713
	21 Dec.	133 million	10,050	1: 13234
Northern Light	23Sep.	80 million	192,304	1: 416
	23 Dec.	102 million	371,808	1: 275

As shown in Figure 10, the percentage of MIIRM developers with high education qualifications were 79%. The developers with lower (certificate and diploma) education qualifications percentage were 21%.

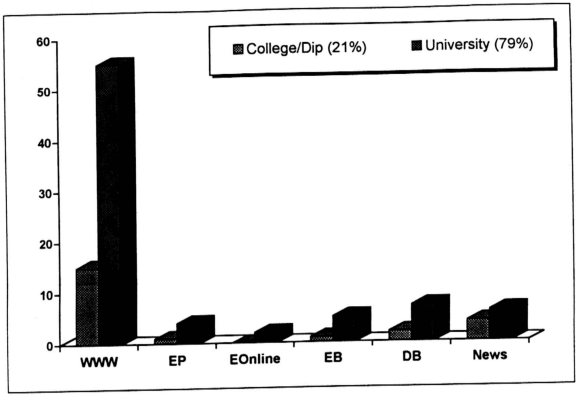

Figure 10: Educational qualifications of the MIIRM developers.

The following statistical figures and numbers will cover the main contents of the MIIRM sample.

As shown in Figure 11, the majority (87%) of the MIIRM source contents are relevant as Islamic instructional materials and only (13%) are not relevant Islamic instructional materials.

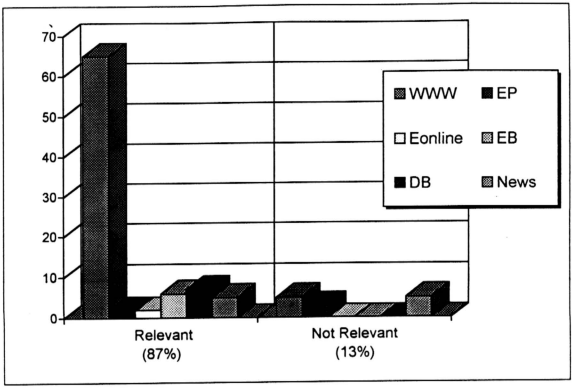

Figure 11: Relevant MIIRM in different sources.

As shown in Figure 12, most of the MIIRM sources (56%) have been updated after 2 months. Only 10% of the sources were never updated ever since their development and 34% of the sources was updated within 2 months.

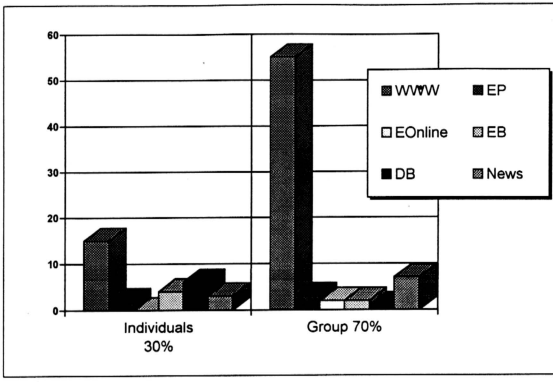

Figure 13: MIIRM Information developers.

As shown in figure 14, the detail of information presented in the MIIRM. The majority of the MIIRM sources (93%) give detailed information of what they presented in their Internet sources. Only 7% presented headlines or banners with no detail information.

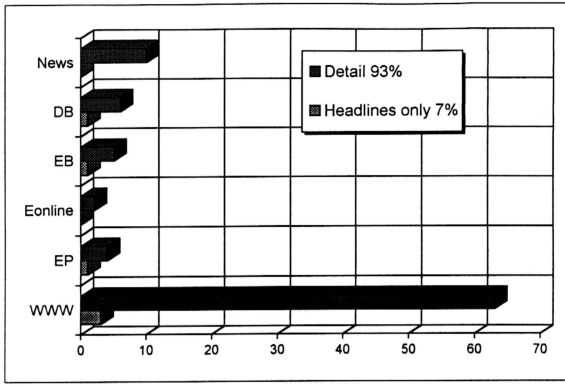

Figure 14: Detailed versus non detailed MIIRM contents.

As shown in Figure 15, the majority of the MIIRM have graphics in their sources or the sources are graphic based like WWW (80%) most of them (47% of the whole sample) presented their graphics in high quality (more than 640 X 480 pixels X 256 colors).

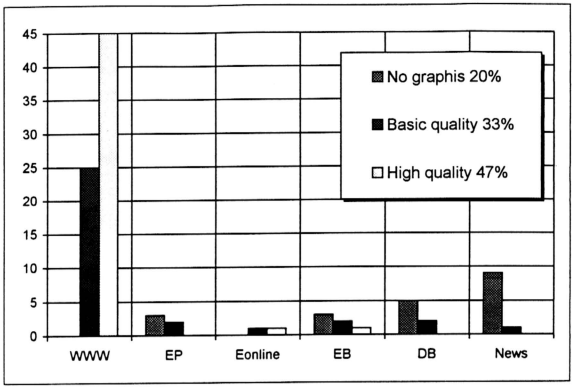

Figure 15: Graphic quality of MIIRM.

As shown in Figure 16, the usefulness and the placement of the MIIRM page directory the majority of the MIIRM sources presented their directory in the first page with links (81%). Only 10% of the MIIRM presented their Internet source content with no directory and 9% of the directory appear in other pages of the source.

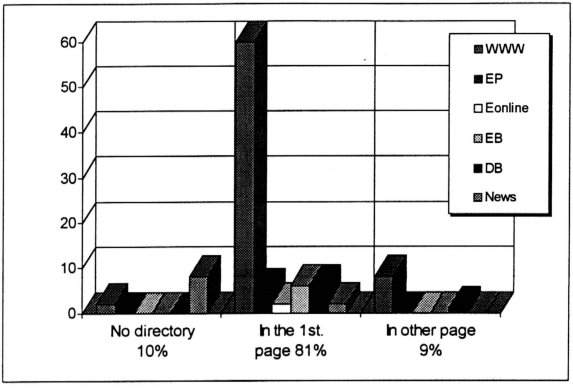

Figure 16: The placement of the MIIRM directories.

As shown in Figure 17, the text readability of (56%) of the MIIRM was good and (44%) of MIIRM text readability can be improved.

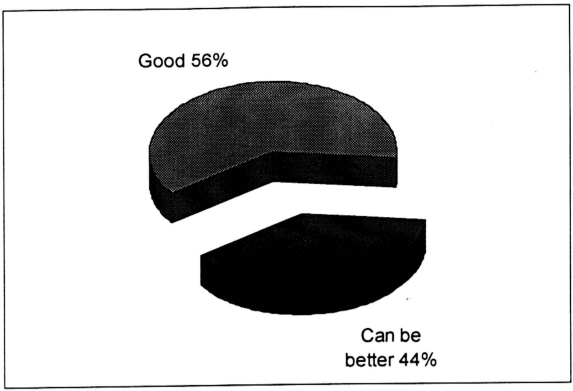

Figure 17: The MIIRM contain text readability.

As shown in Figure 18, there is three standard categories of the layout design in the MIIRM sites, 50% of the MIIRM sample were categorized as instructional standard and 21% as technical standard and 19% as aesthetic standard.

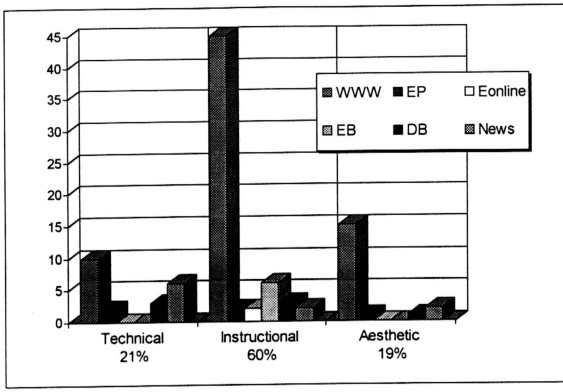

Figure 18: MIIRM layout design standards

As shown in Figure 19, majority (56%) of the MIIRM use HTML extension for better use of the Internet sites and to improve the presentation quality of their sources.

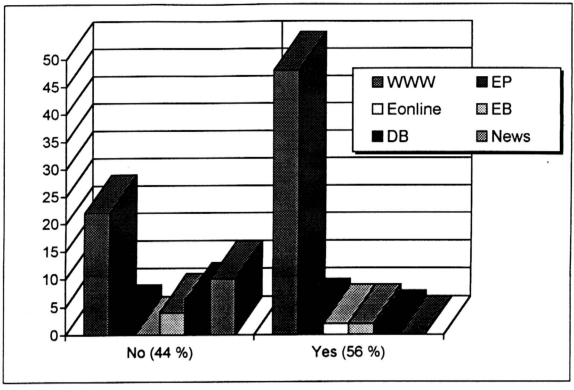

Figure 19: The use of HTML extensions by MIIRM

As shown in Figure 20, fifty (50%) of the MIIRM use the coding of the broken images or links.

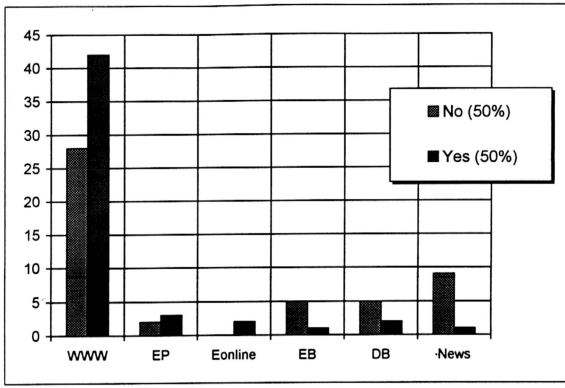

Figure 20: The coding of the broken image or links in MIIRM sources.

As shown in Figure 21, the multimedia features were available in 54% of the MIIRM sources. Majority of the MIIRM WWW sites (44%) used the multimedia features in their sites.

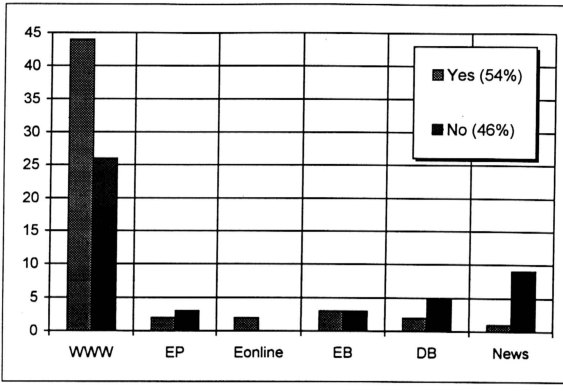

Figure 21: The use of the multimedia features in MIIRM.

As shown in Figure 22, only 35% of MIIRM sources fully used the browser options in presenting their materials while the majority (65%) only partly use.

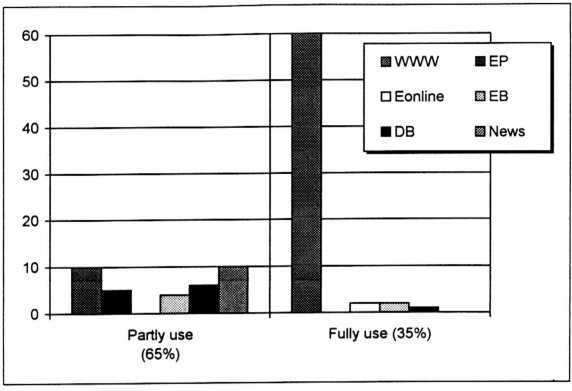

Figure 22: The MIIRM usage of the browser options.

As in Figure 23, the majority (64%) of the MIIRM related their sources to other sources or sites in the Internet with full connectivity and only 4% are not. While (32%) were partly reliable and connected the information with other sources.

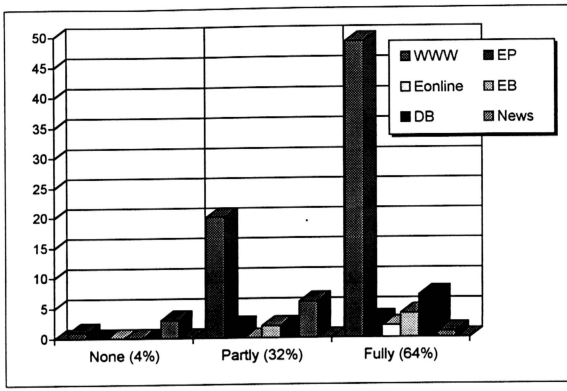

Figure 23: The MIIRM reliability and connectivity with other sources.

As in Figure 24, the majority (66%) of the MIIRM intent and targeted Muslims and non Muslims audience.

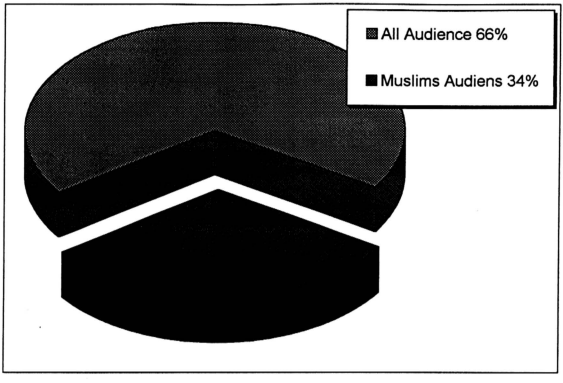

Figure 24 MIIRM intended audience

As indicated in Figure 25, the majority (57%) of the MIIRM material scope breadth and detail was wide enough to be online references.

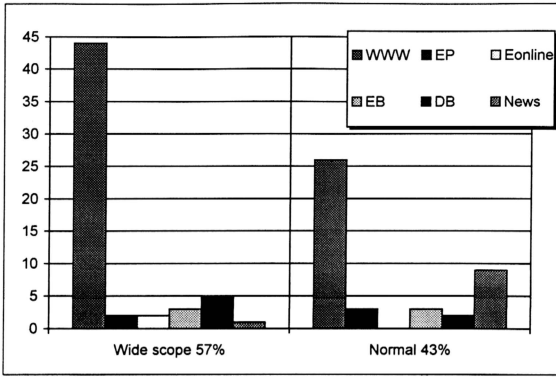

Figure 25: MIIRM scope of information.

Summary and Conclusions

The aim of this research was to study the MIIRM and its existence in today's Internet, the best way to search for and find it, categorize it and analyze its contents. For this purpose, a classification scheme of the most important online resources and background information on the different types of search engines and outlining general search strategies for all Internet users, had been presented in this study. Online search covers 2834 Islam or related to Islam Internet sources in 58 countries worldwide for the period from April to November 1998. A survey was conducted on line (via email) using a 23 items questionnaire which was administered to 105 respondents. The respondents comprising of 100 MIIRM (70 Islamic educational WWW sites, 6 electronic books sources, 5 electronic periodicals sources, 7 online databases providers, 2 encyclopedias online and 10 Islamic Newsgroups). The study excluded 5 respondents because of unstable validity of their sources in the Internet. The respondents were from 58 countries.

The data collected from the responses on the questionnaire were analyzed using the Statistical Package for Social Sciences (SPSS) system by employing descriptive statistics analyses. The research questions were answered from the result of the analyses.

The findings of the study were discussed in the following parts:

1. Locations and accessibility of MIIRM in the Internet and the significant ways of finding it;
2. The analysis of MIIRM by using the instruction design approach for the validity, being interactive and the quality of presenting the information; and

3. The evaluation of the MIIRM content.

Locations and accessibility of MIIRM in the Internet and the significant ways of finding it.

The findings of the descriptive statistics for MIIRM locations and accessibility of MIIRM in the Internet and the significant ways of finding it revealed that:

1. Even with the large percentage of worldwide hosts in non Islamic regions (North America 72.3%, Europe 17.3%, Australia 2.8%, South America 0.6%, Central America & The Caribbean 0.2% and the Pacific Ocean) is greater compared to regions with Islamic countries (Asia 6.0% and Africa 0.4%). The MIIRM hosts in the Islamic countries is more (59%), indicating that the Islamic countries allocate a larger number of hosts to serve the Islamic information dissemination by the Internet. Moreover, the majority of MIIRM hosts are sponsored by governments, NGOs and the Islamic communities; and
2. The majority (59%) of MIIRM were visited more than 2000 times per day even though 57 % can only be located by 2 or less of the major Internet search engines which indicates the findings of MIIRM is not necessary through the major search engines. The majority (72%) of MIIRM aged more than 12 months in the Internet but still the number of documents with the word Islam or Islamic appeared in the search engines are still limited compared with the number of other documents in the Internet. The main reason for non availability in most of the search engines is because of regular removal (33%) of MIIRM.

Therefor MIIRM in the Internet have to stand independently by developing its own search engines and more hosts with Islamic nature to match the needs of the increasing Muslim population.

Although there is limited number of Islamic search engines and almost all MIIRM have links to other sites, more search engines with huge database and intelligent methods of search is always needed. Include here with this study is a good number of Islamic resources links.

The analysis of MIIRM presentation instructional design

The author adopted the instruction design approach for the validity, being interactive and the quality of presenting the information. The result of this study shows that:

1. The majority (79%) of MIIRM developers are with high education qualifications, indicating that Islamic Internet developments are being dealt with by high human capability regarding the content and the aspect of MIIRM. Therefor the majority (87%) of the MIIRM source contents are relevant as Islamic instructional materials;
2. The majority (70%) of MIIRM developers are groups, that support the spirit of Islam to work in groups;
3. The majority (87%) of the MIIRM source contents are relevant as Islamic instructional materials. The majority of the MIIRM sources (93%) give detailed information of what they presented in their Internet sources and most of the MIIRM sources (56%) have been updated after 2 months. Only 10% of the

sources were never updated ever since their development and 34% of the sources were updated within two months. That indicates MIIRM information are mostly in detail, updated and relevant thus making them useful;

4. Eighty percent (80%) of MIIRM have graphics in their sources with high quality graphic resolution display .The multimedia features (audio, text, graphics, video and animation) were available in 54% of the MIIRM sources. Most of WWW sites are with multimedia;
5. Text readability of (56%) of MIIRM was good and the majority (81%) of the MIIRM sources presented their directory in the first page with links. The majority (56%) of the MIIRM use HTML extension for better use of the Internet sites and to improve the presentation quality of their sources. That indicates a good ability of creating HTML documents and only 50% of MIIRM use the coding of the broken images or links. In the other hand only 35% of MIIRM sources fully used the browser options in presenting their materials while the majority (65%) uses only partly. That indicates lack of use for browser options due to the fast development of the browser(s) and the operating systems software. However this should be as MIIRM can also use other options in the browser(s); and
6. Sixty percent (60%) of the MIIRM sample were categorized as instructional standard and 21% as technical standard and 19% as aesthetic standard, which mean the majority of MIIRM directed their resources design to be useful as instructional materials.

The evaluation of MIIRM content

The result of this study shows that:

1. the majority (66%) of the MIIRM sources are targeted for Muslims and non Muslims audience. That indicate MIIRM has the ability of targeting a wider number of audience to make it more beneficial;
2. the majority (64%) of the MIIRM related their sources to other sources or sites in the Internet with full connectivity and only 4% are not. While (32%) were partly reliable and connected the information with other sources. That gives MIIRM strength on linking and this is the philosophy of the Internet. This helps the net users a lot in finding their ways in the Internet; and
3. the majority (57%) of the MIIRM material scope and detail was wide enough to be online references.

Conclusion

The Internet is a web of more than 29 million host computers according to the latest estimates. There is a bountiful of information. The key to doing effective research on the Internet is getting to the right information quickly. The world communicate in seconds with e-mails and other forms of the data communication devises. Information of every type is accessible to anyone with multimedia forms using the Internet. Almost anyone is able to create, develop and publish easily for an audience of millions on the WWW and other forms of the Internet. Thoughts and ideas are exchanged, discussed

and argued across millions of individuals and groups for every possible topic ever imagined. Researchers, educators and students all in rush to exploit the new education opportunities. The global networking is open for learning and searching 24 hours a day seven days a week.

The philosophy of the Internet comes from its originators; laid back computer programmers, information and technology addicts. They wanted to create something no one; movements, government or groups could control. A frontier where anyone could go out and get or provide information, where those with common interests could connect with each other and ignore the normal barriers of race, nationality, and borders.

Noble beginnings, and this too was in the minds of the Muslims when they first joined the Internet. Many were even part of the original builders, researchers, software engineers, programmers and educators, due to many Muslims themselves being in the information technology fields. They began mailing lists, newsgroups, chat lines, and web pages about Islam. Here was one place where they could actually get the true message of Islam to the outside world. Through the net, they could influence those who never would have encountered Islam or only received their information from the media, politicians or anti-Islam propagandists. The Muslim in the Internet could reach others to share and discuss ideas to help bring the Islam and Muslims closer.

Muslims separated and spread out all over could feel the intimacy of being an e-mail or modem's dial away from each other. It would open new

heights in the Muslims ability to organize and plan events, to share knowledge, articles, experiences. Excellent Islamic home pages sprung up, but so too did "agents Islamic faith" like Ahmadiyya, Baha'i, Ismaili and every other deviant groups.

To the point where doing an Internet search on Islam using the different search engines, may indeed give hundreds of links to different views, along with a host of anti-Islam WWW sites giving blatantly false information and arguments by missionaries. Newsgroups to discuss Islam are inundated with non-Muslims who's jobs seem to be to attack and divide Muslims instead of discussing Islamic knowledge. At one point, during this research eight out of ten news groups contain anti Islamic information and debates among the participants and the moderators and hackers.

Muslim Students Associations (MSA) in USA is one of the most important providers of MIIRM they suffer from many of "agents Islamic faith" movements in the universities whose special interests threatens to destroy the MSA sites and their mailing lists.

Muslim chat rooms are especially the hang outs for high school and college age Muslims. They are places for them to talk to other Muslims like themselves from all over the world. For many, it may have the benefit of being an alternative to other non-Islamic activities, but it is also highly addictive and highly unregulated.

Flirting and private on-line relationships are pervasive. Also, among some of the Internet chat channels and newsgroups with very anti-non-

Muslim sentiment, with scripts such as " Burn the Christian or smashes Jew over the head, Muslim wipes off the blood." Which is exist in the Internet. The potential for Islamic invitation (Dawah) is at its greatest, the reputation of being narrow-minded and hypocritical has increased clashes and hacking between even the different Muslim groups such as Sunni versus Shia and Pakistan versus Bangladesh. No scholars or Imam are present on any of these mediums. There are no authorities or any kind of collaborative effort on the part of Muslims. Advice and Fatwas to Muslims and non-Muslims are given out by basically anyone who are dangerously lacking in references or scholarly wisdom and knowledge.

Despite everything, there are many advantages to Muslims being on the Internet. In fact it has influenced the majority in good ways, from just increasing their belief and knowledge to eventually leading people to Islam. This new technology has been a breakthrough in communication among Muslims. Conferences and events are well publicized and organizational logistics have been enhanced significantly and economically. Muslim activities is spread on- line. News is obtained directly from Muslim sources and not only from western media. Even the announcements of the change of prayers timing, fasting month (Ramadan) and feast (Eid) are quickly distributed and followed. Muslims, who live in far flung communities or even places where there are very few Muslims or without any Islamic active, can get the information they need and try to stay in touch with their Islam. Hundreds of articles and books are available, from the Koran on-line to

Muslim scholars essay on Jinn to Sera and Hadith to How to make Friday prayer.

So, while on the surface it may seem like a glittering tool, the reality of today makes one question the direction of Muslims on the net and highlights and points out the cracks in our Muslims dramatically. Half due to ignorance, half due to avoidance, Islamic organizations and scholars refuse to get involved or try to create a presence or authority on the net. Muslim programmers and computer professionals do not use their knowledge to improve the content or build amazing MIIRM like they could be. Muslims are not yet using it to its full Islamic knowledge potential and are not looking far to work with one another in genuine cooperation to make it a place of not just fun, but of benefit for Muslims and others.

Facing all these positives and negatives, Muslims in Internet are at a turning point. The net and modern technology have created situations that are unlike any we have had to face in the past. As a development and extension of our Muslim world, understanding and helping solve our problems on the Internet can be a first step in understanding the Islam as a whole then understand the Muslims differences and how to resolve them.