

Islamic Content of Electronic Encyclopedias in English Language: A Critical Evaluation

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Abstract: *A systematic evaluation of Islam and Muslim world in electronic encyclopedias was conducted by using two-dimensional criteria: searching and technological capabilities, and qualitative evaluation of their content. The factors used to assess searching and technological capabilities are related to direct link, hypertext, related articles, illustration, multimedia, Boolean searching, Internet links, and search history. Content evaluation was conducted in relation to length, scope, treatment level, currency, accuracy, bias, presentation, authorship, and bibliographic documentation. The researchers identified topics that are expected to be valid indicators of the coverage and treatment of Islam and the Muslim world. Some topics are related to theological doctrines, while the others pertained to socio-historical themes. Altogether 21 topics were searched in each title. Five encyclopedias used the same terminology for certain topics, while broader or narrower terms were used for other titles. Total articles thus identified were in the range of 13 to 19. As the search was conducted for a topic, search-related data were noted. Printouts of the identified articles were obtained, and evaluated against specific criteria. It has been found that each encyclopedia has its specific strengths in regard to software and searching capabilities. In content evaluation, it was found that about 30-40% of articles in each encyclopedia had problems with regard to accuracy of information, objectivity, coverage, and presentation.*

Encyclopedias are a vital information resource used by students, scholars, and general public for a variety of purposes. Though these provide secondary information, these serve as credible compendium of knowledge. General encyclopedias have been produced with varying scopes and treatments considering the needs of intended audience. English language has the strongest tradition of producing encyclopedic

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works and the most notable examples of scholarly nature have been *Encyclopedia Britannica* and *Encyclopedia Americana*. Three important titles, primarily oriented to the learning needs of school students, have been *World Book Encyclopedia*, *Grolier Encyclopedia*, and *Compton Encyclopedia*. These also have an immense appeal for general audience and have generated a large market of domestic users in the Western world. Many other general encyclopedias have also flooded the market during this century and had varying degrees of success.

The last decade of the dying century witnessed dramatic changes in the production and use of different types of information sources. Multimedia and interactive encyclopedias were marketed one after another, starting with *Compton*. CD-ROM technology provided a real boost while other concomitant changes in computing technology accelerated the pace of development and innovation. *Grolier* and *World Book* also took an early initiative in marketing their multimedia versions. In 1993, Microsoft, capitalizing on its huge market, introduced its own multimedia product named *Encarta* that was based on the *Funk and Wagnall's New Encyclopedia*. In an extremely competitive market, every new release of these encyclopedias introduced new features, enhancing their interactivity, multimedia capabilities, searching options, linkages, hypertext, animation, images and sound quality. The following four encyclopedias were leading the race: *Compton*, *Grolier*, *Encarta*, and *World Book*. *Britannica* and *Americana*, both scholarly in character, emphasized that unless used with the online mode of access, these could not be kept as current and dynamic as technology and user demands warranted. As a result, both were marketed online through leading vendors as well as through Web-based searching in the Windows environment. These online encyclopedias also had the features of interactive and multimedia products available on the CDs.

By taking a liberal and non-technical view, multimedia encyclopedias are the ones that have textual information plus realistic photographic images, together with at least one form of dynamic media high quality sound, animation, and video. Interactive encyclopedia allows hypertext access, variety of browsing and searching facilities, backtracking, bookmarks, user education, creation of own links, lists and presentations.¹ The term online encyclopedias refers to those products that are being made available online through commercial vendors or available over the Web sites through subscription and authorized access. The term, electronic encyclopedias, covers all the

three types defined above.

A number of articles have compared the properties of multimedia encyclopedias by focusing on technological aspects, retrieval functions, multimedia capabilities, educational potential, and relevance for home users. Salpeter examined the features of *Compton*, *Grolier* and *Encarta* and observed that the three had plenty in common. All offered basic searching possibilities by titles, words, phrases, combinations, and topic trees. Each had some distinct advantages but these targeted the same market and had a great deal of similitude.²

Jacso evaluated the four titles of *Compton*, *Grolier*, *World Book*, and *Encarta* and noted that while multimedia elements and software capabilities were important, yet the most important element was the underlying text. The evaluation criteria recommended by him included accuracy, completeness, objectivity, and ease of reading.³ Chen compared *Encarta* and *Grolier* and emphasized that in today's world, the users need to have transferable skills for using different titles.⁴ Oliver conducted a study to examine if the skills developed for the use of one hypermedia encyclopedia were transferable to others. The study was based on two titles and the students were trained on one title. He found no significant differences in the users' level of success and efficiency in using both the titles, implying that these are transferable skills.⁵

Gillham & Buckner focused on the home users of these encyclopedias and suggested that the factors such as aesthetics, browsing, levels of interactivity and multimedia elements, system performance, searching facilities, and information content are important criteria that influence user satisfaction.⁶ Pack noted that multimedia encyclopedia represented electronic publishing at their best. He questioned their status of currency and made the proposition that online encyclopedia may serve useful adjuncts to the existing family.⁷ Large compared the use of multimedia and text-based versions of *Compton* by school students and found that presentation conditions produced no significant effect although text-on-screen resulted in somewhat higher recall and multimedia resulted in somewhat higher inference scores. Multimedia had the greatest effect on the use of simple topics, and especially the simple procedural topics.⁸

PROBLEM

Electronic encyclopedias are a reality and these would soon replace the print version. It has been recognized that searching and multimedia

capabilities of these encyclopedias are fascinating, yet the information content retains its primary significance for the users. These products need to be critically evaluated against both sets of criteria in order to determine their relevance and usefulness.

The orientalists are the predecessors of the modern media who are responsible for engineering Images of Islam and Muslims in the Western world, essentially negative and condescending. Electronic encyclopedias are becoming more like a home appliance and it is pertinent to examine how have they covered Islam and the Muslim world in these works. Since each producer makes tall claims of authenticity of information and objectivity of presentation, it needs to be subjected to a systematic review.

PURPOSE

The purpose of the study is to evaluate the five leading electronic encyclopedias for their coverage of Islam and the Muslim world. Evaluation is two-pronged; searching and technological capabilities significant for electronic reference sources, and qualitative evaluation of their content. The most relevant factors to assess searching and technological capabilities are related to direct link, hypertext, related articles, illustration, multimedia, Boolean searching, Internet links, and search history. Since each work may have distinct capabilities, these also need to be critically examined. Content evaluation is to be conducted in relation to length, scope, treatment level, currency, accuracy, bias, presentation, authorship, and bibliographic documentation. Qualitative evaluation also needs to be conducted with regard to lapses in currency, accuracy and objectivity. Such an evaluation is expected to provide an insightful picture about the treatment of Islam and Muslim world in the vital reference source of encyclopedias currently available in electronic mode.

PROCEDURES

This research is primarily based on qualitative evaluation. This is the most extensively used method for evaluation of reference sources, yet reliability and validity of researcher judgments are always open to scrutiny and questions.

The following five leading electronic encyclopedias were identified for this evaluation: *Britannica*, *Compton*, *Encarta*, *Grolier*, and *World Book*. *Britannica* was accessed online, searches were conducted, and printouts were obtained for all the articles for evaluation. CD-ROM

version of 1998 releases of *Grolier* and *Encarta* were used while 1997 releases of *Compton* and *World Book* were used. The researchers tried their level best to access *Americana* online, but it was not possible due to telecommunication and technological difficulties. It was assumed that the coverage of the five titles would provide valuable insights into the overall situation.

Topics expected to serve as valid indicators for the coverage and treatment of Islam and Muslim world in the five encyclopedias were identified. This selection was based on the judgment of the researchers. Some topics were related to theological doctrines such as Allah, Islam, Qur'ān, Muhammad, Sharī'ah, Jihād, Ḥajj, etc. The other group pertained to socio-historical themes and issues involving varied treatments that may be controversial or sensitive. These included: Crusades, Palestine, Jerusalem, Intifada, Arab-Israeli Wars, Islamic society, Women in Islam, etc. Altogether 21 topics were searched in each title. Five encyclopedias used the same terminology for certain topics while broader or narrower terms were used for other topics, consistent with the policy of each encyclopedia. Obvious examples are: Ḥajj, Arab-Israeli conflict, and other social aspects. It is also worth noting that no treatment was available for a number of topics in some of the five encyclopedias. After thorough searches and assessments, different numbers of retrieved items were identified for evaluation. Table 1 lists titles of articles in the five sources. Total articles thus identified in each encyclopedia were in the range of 13 to 19. A look at the topics reveals the breadth of the search process. Titles of these articles are given in Table 1. For any further search on the subsequent release, one may refer to the content in each encyclopedia. Hence there was no need to provide any specific citation in the body of this paper. However, we have cited the URL site and the date of search for *Encyclopedia Britannica Online* as footnotes as it was not searchable over the CD.

Search results and the peculiarities of each encyclopedia are presented in Table 2 with the accompanying discussion of special features of each encyclopedia. As the search was conducted for a topic, search-related data were noted. Printouts of the identified articles were obtained, carefully read, and evaluated against specific criteria. Coding was thus done and tabulated and the results have been presented in Tables 2 and 3.

Table 1: Articles Selected from Various Encyclopedias

<i>Britannica</i>	<i>Compton</i>	<i>Encarta</i>	<i>Grolier</i>	<i>World Book</i>
Allah	XXX	XXX	XXX	XXX
Islam	Islam	Islam	Islam	Islam
XXX	AD 622: Birth of Islam	XXX	XXX	XXX
XXX	Muhammad	Muhammad	Muham- mad	Muhammad
Koran	Koran	Koran	Koran	Koran
Hadith	XXX	XXX	XXX	XXX
Shariah	XXX	XXX	Shariah	XXX
Mosque	XXX	Mosque	Mosque	Mosque
XXX	XXX	Kaaba	Kaaba	XXX
Mecca	Mecca	Mecca	Mecca	Mecca
XXX	XXX	XXX	Medina	XXX
Jihad	XXX	Jihad	Jihad	XXX
Crusades	Crusades	Crusades	Crusades	Crusades
PLO	PLO	PLO	PLO	PLO
Palestine- Israeli Arabs	Palestine	Palestine	XXX	Palestine
Palestine- Intifada	Palestinian Intifada	Intifada	Intifada	Intifada
Jerusalem	Jerusalem	Jerusalem	Jerusalem	Jerusalem
Arab-Israeli War	Yom-e- Kippur War	Yom-e- Kippur War	Arab- Israeli Wars	Arabs Arab-Israeli Conflict
Arab-Israeli War and its Consequ- ence	6-Day War	Six Day War	XXX	XXX
XXX	Pilgrimage	Hajj	Pilgrim- age	XXX
XXX	XXX	XXX	XXX	Polygamy

Continuing

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<i>Britannica</i>	<i>Compton</i>	<i>Encarta</i>	<i>Grolier</i>	<i>World Book</i>
Muham- mad & the religion of Islam-Social & Ethical Principles- Family Life	XXX	XXX	Islamic Society	Arabs Family Life
The Islamic World Situation of Muslim Women	XXX	XXX	XXX	XXX
XXX	XXX	Islamic Art & Architec- ture	XXX	XXX
Dome of the Rock	XXX	XXX	XXX	XXX
19	13	16	16	13

Evaluation Criteria: Evaluation was bi-dimensional in regard to process and substance. Search capabilities and technological peculiarities of the five encyclopedias were analyzed by applying the criteria described below.

1. **Direct Link:** Whether the article has direct links to other sites and sources.
2. **How many jumps are available to the user from the hypertext? Hypertext:**
3. **Related Articles:** Whether related articles are identified with the article. **Illustrations:** How many illustrations are inserted in the articles
4. **Multimedia:** How many multimedia items are attached to the article?
5. **Boolean Operators:** Whether searching allows use of Boolean logical operators.
6. **Internet Links:** How many links to Internet sites have been provided?
7. **Search History:** Whether search history is available to the user.

8. **Special Features:** Whether any special features were noted for each retrieved article.

In order to examine the substance of each retrieved article, the following coding criteria were applied:

1. **Length:** It was measured by having approximate count of words of each article.
2. **Scope:** Three category levels were used to assess scope: (1) Cursory, (2) Moderate, and (3) Comprehensive.
3. **Treatment Level:** Three levels were used: (1) Basic, (2) Intermediate, and (3) Scholarly. Basic was considered appropriate for children; intermediate for high school students, young adults and general public; and, scholarly for academics and researchers.
4. **Currency:** The following three categories were identified: (1) Not applicable, (2) Outdated, and (3) Current. Since many theological topics had no time consideration, code 1 was used for them.
5. **Accuracy:** The three categories used for this variable were as: (1) Quite Flawed, (2) Slightly Flawed, and (3) Accurate. If more than three errors were noted in one article, it was placed in Category 1. One to three errors were coded as 2. It was the judgment of the researcher to ascertain whether the error was substantial or marginal. The researcher had to consult reference sources and/or subject experts in order to validate judgments.
6. **Objectivity:** The three categories used for the evaluation were: (1) Slanted, (2) Slightly Slanted, and (3) Objective. Use of odd expressions, idiosyncratic labels, and dubious tone were the possible bases for placing an article in categories 1 or 2. Again it was based on the judgment of the researcher who had to consult experts for arriving at reliable categorization.
7. **Presentation:** The three categories used for this variable were: (1) Poor, (2) Average, and (3) Excellent.
8. **Authorship:** Coding was done to indicate whether the article was signed, whether the author(s) was Muslim or otherwise, and what was the affiliation of the author(s).
9. **Bibliography:** It was also coded whether the article contained a bibliography. If five or more sources were listed, it was considered extensive.
10. **Comments:** The most significant but difficult part of the evaluation was to record judgments that formed the basis of any negative assessment. It was considered important to report such

omissions, oversights, factual errors, and biases in order to substantiate points that have been made through placement of articles in these categories.

RESULTS

I. Searching Features

The first section reports the results of searching and technological capabilities of the five encyclopedias. Table 2 shows the performance of each encyclopedia against the eight variables already defined. Brief discussion about these capabilities is supplemented by a description of the special features each title had.

Britannica

Britannica had some strong searching and retrieval features though it was without any multimedia capability for any of the 19 articles. It uses Boolean logical operators for searching. It had 16, 15 and 15 linkages as direct links, hypertext and related articles. There were seven illustrations and as many Internet links. The special features included.

1. **Topic Map:** Appears near the top of the article if there is further information on the topic. It provides linkages to Long Article, Yearbook, Index, Maps, Tables, Categories, and Internet links.
2. **Spectrum:** One of the remarkable features of this encyclopedia is that it has a tree-like arrangement, descriptive of the structure of a topic, both vertically and horizontally.
3. **Nations of the World:** Information about a country, its flag, map, and events can be retrieved through a variety of options.
4. **Site Map:** It allows browsing of all sections of the Britannica online like articles, multimedia, Internet, etc. For example, if we select "Long article" section of "Islam," we will also retrieve "Islamic world" and "Islamic art."
5. **Browsing:** A-Z list allows browsing the database the same way as is possible in the case of a printed volume of encyclopedia.
6. **Citations and Bibliography:** Each page provides a proper citation under "To cite this page." Also a full bibliography is appended to each article.

Compton

Compton uses Boolean operators for searching. It was found that 10 of the searches had direct links. Out of the 13 retrieved articles, seven

hypertext items and related articles were found. Only three illustrations, two Internet links, and one multimedia item were provided. Other features included:

1. Information Icons: Icons are provided within retrieved article with associated links. For example, for the article *An Open Book*, icons and links are available for animation, atlas, picture, sound, and facts.
2. Infolink Icons: These explore different articles related to the subject. For example, the following related articles were retrieved for Islam via Infolink: Islamic Literature, Caliphate, Saudi Arabia, and Iran.
3. Word-search Within the Article: Search for any word within the article is possible like searching "Muhammad" within "Islam".
4. Article Outline
5. Topic Tree Icon: Organizes contents into basic categories, which then branch into topics and subtopics.
6. Timeline: Explores information about historical events on a topic.

Table 2: Searching Features

<i>Features</i>	<i>World Book</i>	<i>Grolier</i>	<i>Encarta</i>	<i>Compton</i>	<i>Britannica</i>
Direct Link	12	15	16	10	16
Hypertext	None	14	13	7	15
Related Articles	7	10	8	7	15
Illustrations	3	6	None	3	7
Multimedia	None	2	None	1	None
Boolean Operators	21	21	21	21	21
Internet Links	3	None	2	2	7
Search History	Yes	Yes	Yes	Yes	Yes

Encarta

Encarta also employs Boolean operators of searching. Sixteen direct links and 13 hypertext links were found for the 21 searches. Out of the 16 retrieved articles, there were eight entries for related articles and two Internet links. This encyclopedia has no illustrations and multimedia features for the 21 searches. Search history is also available in the encyclopedia. Other special features included are:

1. **Information Type:** Articles are indexed by keywords and are identified by colored squares. Purple is used for encyclopedia article, light green for Internet, green for quotation, and blue for dictionary.
2. **Expanded Information:** The (+) sign indicates that it can be expanded for additional information.
3. **Searchable years.**

Grolier

Grolier has used Boolean operators for searching. Direct links, hypertext links and links for related articles were found to be 15, 14 and 10, respectively. Six illustrations and two multimedia links were found for the 21 searches that had resulted in 16 useable articles. It had no Internet link, but contained search history. Special features of the encyclopedia were found to be as follows:

1. **Timeline/Yearbook:** Explores historical events by selecting certain period that is linked to relevant articles.
2. **Atlas:** It is used to navigate through the map linked to an article or a picture.
3. **Knowledge Tree:** Article classification system that explores ideas across different branches of knowledge.
4. **Linked Information:** For each retrieved article linkages are provided to: Related Media, Text, Outline of the Article, and Pictures.
5. **Searchable years.**

World Book

This encyclopedia appears to be distinctly different from the other members of the group. Though it uses Boolean operators, it did not have hypertext and multimedia features. It elicited 12 direct links and three Internet links for the 21 searches resulting in 12 articles. Special features of the encyclopedia are as follows:

1. Article Outline: For each article an outline is provided with jump links to any part of it.
2. Related Articles: There are seven related articles and the related article icon is highlighted with links.
3. Just Looking: Allows browsing any content by selecting terms within a category.
4. Around the World: Opens a map of the world from which a country can be clicked which is then linked to relevant articles.

II. Content Evaluation

In this section, results of content evaluation are presented. The evaluation was based on nine variables, defined in the preceding section on procedures, after subjecting each retrieved article to thorough content review and scrutiny. A tabular presentation of these results is shown in Table 3.

Britannica

This review is based on 19 articles retrieved from *Britannica*. Mean length of these articles was found to be 522 words with a wide range of length: 80-1000 words. It is worth noting that *Britannica* has varying levels of treatment and articles of different lengths are found on a topic. This examination was based on only one specific article that was considered appropriate for this review. In this context, this length range and mean score may be found irrelevant.

It was found that most of the articles in *Britannica*, 16 out of 19, have a scholarly nature with comprehensive treatment. With regard to currency, it was a pertinent factor in 13 of the 19 articles and eight of them were found to be current. Slight flaws were noted in five articles. Revelation of al-Qur'ān was reported to be spread over 20 years whereas it would have been more accurate, had it been 22 years.

Fifteen of the nineteen articles had an objective treatment while it was observed that objectivity was not maintained in four articles. In article on mosque, it described the science of *tajwid* as a "rigidly prescribed system taught in special schools" that smacks of some inherent sentiment of the author. In the same article, the author translates *mua'zzin* as "crier" that just slights the role of the "caller/pronouncer."

The article on Ḥadīth fails to provide an understanding of this vital Islamic science. It does not mention anything about the development of this science and its status in Islamic jurisprudence. A grossly

misleading notion about Ḥadīth is that it can be “defined as the biography of Muhammad...”

The article on Islam provides an authoritative introduction, very well structured and presented.⁹ However, it does have the following statement that can be subjected to a critical discourse:

While Sunni orthodoxy, the central community of ISLAM, condemned schisms and branded dissent as heretical, it developed at the same time the opposite trend of accommodation, catholicity, and synthesis. A broad theological platform was adopted that saved the integrity of the community at the expense of moral strictness and doctrinal uniformity.

The article on *sharī'ah* is written with a lot of clarity and command.¹⁰ However, its last sentence could be interpreted as intriguing. It says: “...but the Westernized civil codes of most other Muslim countries have departed from the percepts of *sharī'ah* when *this was deemed unavoidable*” (italics added). It gives the impression of *sharī'ah* being irrelevant in the current context. Lack of application of *sharī'ah*, as mainstream Muslims believe, is due to a variety of other compulsions prevailing in the modern Muslim societies. Article on the *Situation of Muslim Women* in the section on *The Islamic World* is a brief piece with many controversial statements.¹¹ Remarks are judgmental and non-objective. Some of the comments are apparently irrelevant in the current context. It sets out by stating that Muslim women are under pressure as “on the one hand [they are] to be liberated from Islam ...” The depiction of Muslim women is horrifying as it provides, “...evidence from the modern period underscores the enormous variety of settings in which Muslim women live and work, as well as the inability of the stereotype of meek, submissive, veiled passivity to reflect the quality of their lives.”¹² The author seems to be simply out of touch with the reality of the modern day as the article states: “For many [Muslim women], the private home and the public bath continue to be the centers of social interaction.” A genuine question needs to be posed to the author that where in today’s Muslim world public bath is the place of social interaction. The knowledge of the author might be based on the description of centuries old culture of a certain place. Of all the nineteen articles, this article appeared to be a representation of slant and some subjective and unsubstantiated assertions. On the other hand, the article on *Family Life* in the section on *Social and Ethical Principles in Muhammad and the Religion of Islam* is extremely well written with a balanced treatment.¹³ Some statements about the tribal orientation of Muslim cultures and the tensions caused by contrasting allegiances to family and tribe, as

pronounced by Islam, are yet open to discussion. However, the discussion is genuinely objective and scholarly.

Another article in the section on the *Islamic World* is on *Modern Islam's Unifying Forces*. It is more of a philosophical analysis of theological, cultural, and operational undercurrents formulating the identity of the contemporary Muslim individual and society. It is abstract and vague in both the tone and content and fails to make a clear point. Yet the treatment is objective and dispassionate.

The first paragraph on the article *Jihād* provides the meanings of the term.¹⁴ The meanings provided are very much constrained and there appears to be a clear allusion to the wider perspective of the term. It states, "a religious duty imposed on Muslims to spread Islam by waging war; jihād has come to denote any conflict waged for principle or belief and is often translated to mean "holy war." Then it goes on to the other extreme and provides that "Modern Islam places special emphasis on waging war with one's inner self. It sanctions war with other nations only as a defensive measure when the faith is in danger." This view is presented as the prophecy of "modern" Islam, again attributable to the misconception of the author.

Articles on *Palestine, Arab-Israeli Wars, and PLO* are factual and objective. However, when one fails to find a mention of the Israeli sponsored massacres of Sabira and Shatilla in Beirut in any of the three articles, it reflects selectivity that might have been applied in the overall treatment.

Presentation of most of the articles (18 out of 19) was found to be excellent. The electronic version of the encyclopedia does not provide information about names and affiliations of authors. Bibliographies are provided but not together with the articles.

Compton

Thirteen articles were retrieved from Compton. Range of length was 80-2,870 words with the mean score of 750. Some of the articles were detailed ones. The longest article was on Islam and it contained sections on *hajj* and *sunnah*. It was observed that three of the articles had a cursory coverage of the topic while there were five articles in each of the categories of "moderate" and "comprehensive" coverage. Treatment was basic and oriented toward children and young adults. Currency was considered relevant for six articles out of which five were found to be current. With regard to accuracy of content, 3, 1 and 9 were placed in the categories of "quite flawed," "slightly flawed,"

and accurate. One obvious example is that in its article on *Koran*, it provides that, "...the general tone throughout is poetic. This is more evident in the earlier chapters." Anyone familiar with the Qur'anic text would refute this gross statement. Then it states that the revelation was spread over 20 years whereas a more accurate statement would have been 22. Another glaring mistake is noted in a statement in the same article where it states, "He [Muhammad] began his work in Makkah, spent a long period in Madina, and returned again to Makkah." It is an established fact that the Prophet never settled in Makkah after conquering it.

There is a brief article of about 180 words on *AD 622: Birth of Islam* that has two serious flaws. It describes *zakāh* as a "voluntary charitable contribution," a clear negation of its obligatory nature. The last sentence gives the number of Muslims worldwide to be more than 700 million, whereas every demographic compilation holds it to be exceeding a billion. There is a section on *Islam* within the article on *Pilgrimage*. Here it provides that "the main duty is to walk seven times around the Kaaba," without any mention to stay in 'Arāfāt, the foremost obligation in the rites of ḥajj. There is also a statement in the article on *Makkah* that "pilgrims pay large sums as pilgrimage taxes," an example of author's lack of information. Another factual flaw was noted on the article on *1973: Yom Kippur War*. It refers to the 10th day of Ramaḍān as an "anniversary of crucial war fought by the Prophet Muhammad." The fact is that Badr was fought on the 17th of Ramaḍān and not on the 10th. Another slight flaw was noted in the article on *Crusades*, stating its purpose "to free the Holy Land from the Turks." The fact is that it was only the first Crusade when Seljūks had control over Jerusalem whereas all the other Crusades were against Muslims.

It was found that ten out of thirteen articles were given an objective treatment by their authors while three had a slight element of bias. It was noted that in the article on *1967: Six Day War*, the facts are correct, but with some selectivity. It does not mention who was the aggressor to initiate the war. Presentation of nine articles was found to be excellent and four as being average. Only one of the articles was signed and a non-Muslim had made this contribution.

Encarta

Sixteen articles were retrieved from *Encarta* with the mean length of 447 words in the range of 60-1,350 words. Cursory scope and basic level of audience were noted for 11 articles while the remaining five were of moderate coverage and intermediate level of audience.

Currency was applicable to seven articles, five of which were found to be current. With regard to accuracy, it was found that three and two articles were "seriously" and "slightly" flawed, respectively. Two serious errors were noted in a brief article on *Muhammad (prophet)*. The last sentence of the article contained wrong information, "Only one of the children survived, a daughter named Fatima ..." Another sentence preceding that is about the death of the Prophet and it maintains, "In 632 he died suddenly and unexpectedly." In the same article, the distance between Makkah and Madina is said to be 300 kilometers. Similar blunders are to be noted in the 5-line article on *Jihad*. Excerpts are: "Jihad is the duty of all mainstream Muslims, or Sunnites," "Most modern branches of Islam stress the inner, spiritual jihad," "But Islamic law also states that all nations must surrender to Islamic rule." The absurd definition of hajj cannot be substantiated at all. It states, "the term hajj means, "standing before a deity in a sacred place." The article further informs the reader that "hajj can only be carried out during the first two weeks of *Dhul Hijja*." Another factual error was noted in the second sentence on the article *Mosque*. It maintained, "The first mosque was the courtyard of the house of Islam's founder, Muhammad, located in Madina."

Slight bias was also noted in half of the articles while the remaining were rated to be objective. While there are many pieces of erroneous information in the article on the Prophet, the overall tone leaves much to be desired with regard to objectivity. The author uses vague expressions like "most modern branches of Islam" in the article on *Jihad*. The article on *Yom Kippur War* has a definite statement, "Within three weeks, Israeli forces had defeated the invading forces." Making a sweeping statement like that defies the notion of objectivity. Nine articles were assessed to have average presentation and seven were rated to be excellent. The encyclopedia does not provide information about authors and the articles have no bibliographic documentation.

Grolier

Sixteen articles were retrieved from Grolier with the mean word length of 1,025 and the range of 40-3,600 words. It was found that three articles had a brief and cursory coverage of the topic, six were moderate in coverage, and seven were extensive. Fourteen articles were written for young adults and general public whereas two had scholarly orientation. Six articles had some element of obsolescence while the other ten were found to be current. Contents of twelve articles were evaluated to be accurate and the other four had flaws.

The article on *Shari'ah* contains the following statement about the development of shari'ah, "the shari'ah developed over the course of several centuries, incorporating laws derived from ancient Arabic custom as well as those of the peoples conquered during the first century of Islam." Serious typos and factual mistakes were noted in the same para. Malik bin Anas is typed as Malik ibn-Arias, Abu Hanifah as Abu Hanafa, and al-Shafi'i as al-Shaybani. It also has the serious omission of the name of Ibn Hanbal among the four leading jurists. One article was assessed to have slight slanting while 15 articles were objective in their treatment. Articles on *Palestine Liberation Organization* and *Intifada* are scant and present the Western perspective, though written in plain and objective manner. Similar bias is noted in the article on *Arab-Israeli Wars*. Selectivity in presentation of facts was found in all these articles. All the dark aspects of Israeli occupation, aggression, and massacres were conveniently overlooked in their treatment. Thirteen articles were rated as excellent in presentation, two having average quality, and one with poor organization of content.

Grolier had eleven of its articles signed. Of the 16 contributors, three were Muslims. Fifteen of them were academics by professional affiliation. The encyclopedia had bibliographies for thirteen articles and nine of them were found to be extensive.

World Book

Thirteen articles were retrieved from the *World Book* with the mean length of 1,088 words. The length range was 160 to 3,680 words. Some articles were long and contained sections that were treated as independent articles by other encyclopedias. For instance, the article on *Arabs* contained sections on *Family Life* and *Arab-Israeli Conflict*. Likewise *Intifada* was treated within the article on *Palestine*. Article on *Islam* covered topics like *Koran*, *Masjid*, *Polygamy*, and *Role of Women in Islam*. Four of these articles had brief coverage, three were moderate in scope, and six were comprehensive. Six received the basic treatment appropriate for high school students while seven had a scholarly treatment. It was found that all the articles were current wherever it was considered applicable. Twelve of the thirteen articles were found to be accurate in content while one article was slightly flawed.

Table 3: Qualitative Evaluation of the Encyclopedias

Names	Words ^a	Scope ^b	Level ^c	Currency ^d	Accuracy ^e	Objectivity ^f	Presentation ^g	Authorship ^h	Bibliography ⁱ
Britannica N = 19	R=80-1000	1 = 1	2 = 3	1 = 6	2 = 5	2 = 4	2 = 1		
	M = 522	2 = 2	3 = 16	2 = 5	3 = 14	3 = 15	3 = 18		
		3 = 16		3 = 8					
Compton N = 13	R = 80-2870	1 = 3	1 = 13	1 = 7	1 = 3	2 = 3	2 = 4	A1 = 1	
	M = 750	2 = 5		2 = 1	2 = 1	3 = 10	3 = 9	B2 = 1	
		3 = 5		3 = 5	3 = 9				
Encarta N = 16	R = 60-1350	1 = 11	1 = 11	1 = 9	1 = 3	2 = 8	2 = 9		
	M = 447	2 = 5	2 = 5	2 = 2	2 = 2	3 = 8	3 = 7		
				3 = 5	3 = 11				
Grolier N = 16	R = 40-3600	1 = 3	2 = 14	2 = 6	2 = 4	1 = 1	1 = 1	A1 = 11	A1 = 13
	M = 1025	2 = 6	3 = 2	3 = 10	3 = 12	3 = 15	2 = 2	A2 = 5	A2 = 3
		3 = 7					3 = 13	B1 = 3	B1 = 9
World Book N = 13	R =	1 = 4	1 = 6	1 = 3	2 = 1	2 = 2	3 = 13	B2 = 13	B2 = 4
	160-3680	2 = 3						C1 = 15	A1 = 10
	M = 1088	3 = 6	3 = 7	3 = 10	3 = 12	3 = 11		B1 = 2	A2 = 3
								B2 = 13	B1 = 3
								C1 = 12	B2 = 7
								C3 = 1	

^aR = Range, M = Mean; ^b1 = Cursory, 2 = Moderate, 3 = Comprehensive; ^c1 = Basic, 2 = Intermediate, 3 = Scholarly; ^d1 = Not applicable, 2 = Outdated, 3 = Current; ^e1 = Quite flawed, 2 = Slightly flawed, 3 = Accurate; ^f1 = Slanted, 2 = Slightly slanted, 3 = Objective; ^g1 = Poor, 2 = Average, 3 = Excellent; ^hA1 = Signed, A2 = Unsigned, B1 = Muslim, B2 = Non-Muslim, C1 = Academic, C2 = Researcher, C3 = Other; ⁱA1 - Documented, A2 = No bibliography, B1 = Extensive, B2 = Few Items.

In the article on *Islam*, Ahmadiyyah was considered as an "Islamic sect" whereas it treated Bhais as having grown out of Shiite faith. In the article titled *Muhammad*, an expression was used that the Prophet drove the Jews out of Madina "angrily." In the following line, it was maintained that the Prophet "ordered Muslims to face Makkah" for prayers, which is contrary to the Qur'anic injunction as being an ordainment from Allah. In the article on *Koran*, a statement about its compilation is in clear contradiction to the available evidence. It states, "Islamic tradition does not specify whether many of the *ayas* (verses) and *suras* (chapters) were written down during Muhammad's lifetime or after his death." An objective treatment was noted in eleven articles. The article on *Crusades* seems to be selective in information. It does not mention the slaughter of the population of Jerusalem after the success of the first Crusade. It also fails to mention the generosity of Salahuddin in his treatment of non-Muslims when he regained the control of Al-Quds. Likewise the article on *Palestine* is objective with regard to statement of facts, but it slights the significance of this region in the Islamic faith. All the articles were rated to be excellent in presentation.

All the articles were signed and two out of the fifteen contributors were Muslims. All of them were academics except one who was a public servant. Ten articles contained bibliographies, three of which were extensive.

CONCLUSION

Britannica stands out as the most valuable reference work among the five, both in terms of its technological capabilities and content. It uses the most sophisticated retrieval capabilities. Topical outlines are extensive and extremely well structured. The most distinctive feature is that it uses levels of articles in relation to user needs. Spectrum and related articles cater for a wider readership despite its scholarly orientation. Britannica has invested a great deal before committing itself to go online and the product testifies to this effect. Despite its very strong technical properties, the number of errors found in just 19 articles is worth the attention of Islamic scholars. It has weaknesses in currency, accuracy and objectivity for four to five articles. Indeed this evaluation was at a micro-level and one may claim that the results do not indicate massive problems, yet these appear to be a heavy liability for this encyclopedia.

World Book is available in electronic format, but these articles appear to be more or less a substitute of the print. The producers did

not make any effort of the sort we find in other titles. However, we were able to note very few content problems in this encyclopedia. In that respect, it might be the best among general encyclopedias though the treatment has little scholarly touch in most of the articles.

Encarta seems to be the poorest on both the counts. Its articles are too sketchy, the briefest among the evaluated titles. Scope is limited, treatment is basic, and it has very serious problems in accuracy, objectivity, and presentation. On the technical side, it did not have any multimedia or illustrations for any of the sixteen articles. It provided only two Internet links as compared to seven found in *Britannica*.

Grolier is rated to be among the best performers in technical capabilities. It is oriented to general public and high school students and the presentation is straightforward for this audience. Some glaring examples of content flaw were noted in four articles. Generally it was assessed to be objective. *Compton*, more suitable for school students, also had severe accuracy lapses in three articles and minor flaw in one article in a total of thirteen articles. Three articles were found to be deficient in objectivity. These are serious observations for an otherwise prestigious title in today's electronic world.

In all a total of 77 articles in five titles were critically examined in the present exercise. As we find only three pieces of multimedia in only two encyclopedias, it indicates the performance of these encyclopedias about the characteristic that is perhaps the primary identity of these electronic products. Many of the topics were of socio-political character of the modern world and one could expect attachment of a reasonable number of multimedia items to these articles. It just indicates that despite tall claims by producers, the feature is yet to be optimally developed and utilized.

This study has brought forth some critical insights that merit the attention of Islamic organizations and scholars. A large-scale evaluation needs to be taken up that should extend beyond the limits of this pilot work. It is the function of some credible research organization to conduct a comprehensive evaluation by engaging a team of experts drawn from the diverse fields of Islamic sciences and from amongst those who are well-versed with searching, retrieval, full-text database design, and multimedia production.

Notes

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