# PREPARATION OF THE INDEXER IN AN ELECTRONIC ENVIRONMENT: A STUDY OF TRAINING AND QUALIFICATION PROGRAMMES AT THE SUDANESE NATIONAL DOCUMENTS HOUSE [SNDH]

**\*Fatima Dafallah Mohammed Elhassan and \*Dr Saife Eldin Falloh**
Najran University, Kingdom of Saudi Arabia
Neelain University, Faculty of Computer Science and Information Technology,
Dean of Emirates College, Khartoum, Sudan
E-mail: Fatimaalsagry1@yhoo.com

**Abstract:**  A research on the role of indexing training courses on preparing the 'indexed' in an electronic environment, the research shows the latest developments in the field of indexing in an electronic environment; and then demonstrate index training courses at the Sudanese national documents house [SNTH] and some other Sudanese universities, then reveals achieved results, and finally the research presents a number of proposals and recommendations.
**Keywords:** Indexer, Descriptive indexing, Objective indexing, Mechanical indexing, Meta data.

## Introduction

It goes without saying that indexing is the backbone of work in documents houses and other information utilities. Because it is not possible to get access to any source of data "whether conventional or electronic" without using efficient tools; or retrieving methods that, contains a description, and an organization of these sources.

Indexing has dramatically developed from the time when it had initially started with a short and an unmethodical description of the sources of information, then it moved to the phase of a detailed data about the sources; prepared according to a codified standards and systems which resulted into 'labeled index' and later modified into indexes available at firsthand on line OPAC and eventually available in the internet. Thus, indexing has developed from manual to computed indexing. The spread of electronic sources of information has led to the innovation of new methods for description and organization.

Indexing is a technical job that can only be practiced by a qualified person who has well been trained; such a person must be updated with the latest developments and should be capable of

accomplishing his job competently under the requirements of electronic environment around which orbits libraries and other information utilities nowadays.

Indexing or technical processing is considered to be one of the basic courses upon which training is conducted at the Sudanese national documents house SNDH; it is greatly privileged because of the lack of data base and nonexistence of a central equipment or musual source of information. The thing that; compelled SNDH to accomplish technical processing in original and not by coping in most cases, emanating from this perception; the current research focuses on the idea of preparing or in other words qualifying the person entrusted to carry out indexing or technical processing of information sources at the SNDH.

**Objective of the research:**

The objective of the research is to analyze the programs and training courses related to indexing and classification at SNDH in order to know; up to what extent they are adequate to the requirements of technical work in an electronic environment. Moreover; to get acquainted with the SNDH training and professional upgrading programs for indexers.

**Tools and methodology of the research:**

The research adapts survey methodology; and uses the guidelines of training courses programs and all that is related to them, in addition to interviews with the trainers of conventional and electronic indexing at some of SNDH departments.

**Descriptive indexing:**

It is concerned with the material form of information; by using a collection of data which gives a smaller copy of them; so that; they can be easily recognized and distinguished from each other. [Omar Ahamed Hamshari: basics of library science, documentation and information/ written by Omar Ahamed Hamshar, Rebhi Alian: the Modern perspective, 1996 page 161]

**Objective indexing:**

It is concerned with describing the objective entity or the intellectual content of the container; this objective description can be accessed through two technical processes: classification and head lines [Shaban Abdul aziz Khaleefa, the greater list of Arabic head lines/ written by Shaban Abdul aziz Khaleefa, Mohammed Awad Al Adee-revised edition Cairo: Academic library 1994-page10].

**Mechanical indexing:**

Computed indexing is a file that contains a number of bibliographical records each one includes a number of fields. [Mohamed Fathi Abdul hadi: Modern trends in indexing – page 169].

**Indexing in an electronic environment:**

In the few past years many progresses have been witnessed in the field of indexing; which have had their effects on the training and qualifying of the indexer, such improvements can be highlighted as follows:

**1** Moving from manual to computed indexing, and consequently changed from labeled indexing to accessible index on line OPAC, and the possibility of using it as a portal for search in the internet.

**2** The increased dependence on large databases in retrieving index data; through what is known as transferred indexing. The best example for that is OCLC which furnish a database called the unified index on the direct line.

**3** Utilization of electronic stations work in the circumference of indexing. These stations which depend on personal computers are equipped with functional programs that authorize the indexer quick access to electronic copies of indexing work tools, moreover quick and easy communication with bibliographical databases and the internet. And also some of the working tools are those downloaded on compacted disks for long distance accessing via internet. They are either available in private or public sites. Public sites provide technical working tools in a briefed or full form through a single site such as **Cataloger's Toolbox**, and there are also private sites which belong to some libraries where Anglo-American indexing standards are available in a brief form; through the site of library of congress and [MARC 21] as well. In addition to the availability of technical working tools there are also some other tools such as dictionaries, encyclopedias and abbreviations manuals. It might be necessary to obtain translation permission for some of the foreign technical working tools, and also computing some of Arabic technical working tools.

**4** The issuance of a new revised edition of the Anglo-American indexing standards; which is the second edition revised in 2002 including modification and changes in some of the standards of which; of course; the most significant is chapter nine which deals with electronic sources, it has been issued in an entirely new form in order to adapt the special nature of electronic sources. [An Arabic translation of the above mentioned edition has been issued].

**5**      The issuance of [MARK 21] for application in 2000; came as a result of agreement between USA and Canada to merge their national MARC forms together. The name MARC means: reference to the future [21 century]; and also international feature as an extension for the continuation of merger; as was the case when a single edition was issued of both the American and the Canadian forms. [Taylor, Arlene G. The organization of information- 2<sup>nd</sup> ed. - Westport, Conn.: Libraries Unlimited, 2004].

**6**      The spread of electronic sources; specially those for long distance accessing; has led to an emergence of interest for indexing those sources and to prepare the necessary tools for retrieving them. There has also been a consideration for depending on search engines for retrieving  information through the internet or otherwise; to index those sources by the same method followed for indexing conventional materials; whereas MARC records of those sources  are to be established and added to libraries' indexes. Using the criterions of **Meta data** for regulating those sources has also been considered.  [Mohamed Fathi Abdul Hadi. Metadata – libraries now {Cairo} ……………….2 [June 2004 page 6 – 18].

**2/ The role of public relations dept. at the Sudanese national documents house in qualifying the indexer:**

Employees from different departments at SNDH are trained in a hall assigned for training courses and also some of them are delegated alternately to either some of the Sudanese universities or abroad.

Training courses varies between conventional and electronic indexing and whole computer. Courses are either taught to all employees or divided according to departments into sections; as is the case in the libraries, documents and information dept. at the faculty of arts – university of Neelain; where fourth year's students are divided into three sections : documents section, libraries section and information technology section.

On the following we approach training courses, classification and indexing in four departments: Three from Sudanese universities plus the training dept. at SNDH.

**Documents and information dept. at the faculty of arts – university of Neelain:**

Students study 44 courses in four years, classification and indexing course are {four courses} 9% of the total number of courses, theoretical hours are 9% while training hours are 26.7% [see table 1]

**Table [1]** indexing and classification courses at Al Neelain's Faculty of art

| Name of the course | Level of the group | Number of hours | |
|---|---|---|---|
| | | Theoretical | practical |
| Descriptive indexing [preliminary] | second | 4 | 1 |
| classification | second | 4 | 1 |
| Objective classification | third | 4 | 1 |
| Descriptive classification [advanced] | third | 4 | 1 |
| | | 16 | 4 |

## 2/Libraries at the faculty of arts – Khartoum University:

Students study 37 courses, the number classification and indexing courses are [five courses] 13.5% of the total number of the courses, the percentage of theoretical course hours is 12.8% and for training 50% [see table 2].

**Table [2]** indexing and classification courses at the dept. of libraries – Khartoum University

| Name of the course | | level of the group | number of hours | |
|---|---|---|---|---|
| | | | Theoretical | practical |
| Descriptive indexing | | second | 4 | 2 |
| classification | | second | 4 | 2 |
| Processing audio visual subjects. | | third | 4 | 2 |
| Comparative classification science | | third | 4 | - |
| Objective analysis | | third | 4 | - |
| | | | 20 | 6 |

## 3/Libraries dept. At the faculty of arts – Omdurman Islamic university:

Students study 40 courses; [five courses] are classification and indexing 12.5% of the total number. Theoretical hours are 12.8 % and 30.8 % for training. [See table 3].

**Table [3]** Indexing and classification courses - faculty of libraries and information- Omdurman Islamic University.

| Name of the course | Level of the group | Number of hours | |
|---|---|---|---|
| | | Theoretical | Practical |
| Bibliographical description [preliminary] | Second | 4 | 2 |
| Classification | second | 4 | 2 |

| Objective analysis | Third | 4 | - |
|---|---|---|---|
| Bibliographical               description [advanced ] | Third | 4 | 2 |
| Classification  [advanced] | Third | 4 | 2 |
|  |  | 20 | 8 |

The dept. of public relations at [SNDH] conducts training courses about indexing and classification systems [conventional and automatic indexing]; for all the employees of its different departments, training is done by veteran experienced employees as well as the dept. of nets and information technology at [SNDH].

There are also training courses available for the government and private establishments who wish to train their cadres at [SNDH].

**3/ Training and professional development for indexers in Sudan:** sources

In view of the constant development in the field of technical processing of sources of information; either by modifying or reviewing existing systems and standards or by innovating new methods; it has become incumbent on indexers to be trained and to acquire skills on how to deal with these developments.

In the following we briefly refer to the current training systems in Sudan in regard to their technical processing.

A.     Few libraries organize training programs for their employees in order to be acquainted with the newly innovated systems at [SNDH].

B.     Some companies and establishments who owns or market mechanical systems; offer training programs to such document houses who decide to apply automatic systems. It includes different subsidiary systems of which the most significant; of course; is the subsidiary indexing system and the other that is concerned with the indexing accessible on line for public use. [See for example the company that markets [Horizon system].

C.     Some Arab and foreign organizations offer training programs on the modern systems of information, libraries and indexing. For example: many programs are offered by the Arab administration development organization in Cairo; such as automatic indexing program; a program about METADATA and indexing of internet sources etc…     the training center at SNDH offers many training course related to different aspects in the field of libraries, indexing and information; such as the technical processing. Usually those who enroll on these

courses are the indexers working at SNDH. The center has organized many training courses about automatic indexing and the use of MARC 21.

**Summery**

Despite the fact that, indexing is actually a practical and technical activity, yet, the theoretical aspect is a dominant feature of teaching its courses in three libraries and information departments at Sudanese Universities. And that will have a negative effect upon application at SNDH, libraries and information centers, especially computed indexing, due to the obvious shortage of laboratory equipment; in particular when it comes to using automatic systems, let alone the ever increasing number of students who require many necessities.

The lack of a curriculum concerned with the use of mechanism on technical processing of information, whether generally or at any of its aspects, reflects the conventional nature of classification and indexing teaching programs.

The contents of curriculums shows that, the focus is on the basics and standards of indexing, and rarely refers to mechanized indexing even though curriculums about using computer at SNDH do refer to the subsidiary system for indexing on automatic systems available in the market and applied at libraries.

The dept. of libraries, documents and information at the faculty of arts – Al Neelain University applies a new program that includes emphasis on the techniques of information in general and the systems related to technical processing of information in particular. The program also includes free curriculums such as: automatic indexing, automatic technical processing of information authority control and automatic control systems.

There are some centers and establishments that focus in their training programs for librarians on computed indexing; the thing that completes teaching programs for the departments of libraries and information.

**Recommendations**

Emanating from the obvious orientation towards the use of computer at [SNDH] and the necessity to train and qualify the indexer perfectly well in such a way that she/he can effectively do his job in an electronic environment that greatly develops from time to time. We therefore present the following proposals and recommendations:

1.	It is necessary to take care of technical processing courses [indexing and classification] in the teaching programs for the departments of libraries and information under the lack of central or supportive arrangement of information sources.

2.      To emphasize the importance of presenting curriculums or part of them; extensively related to machine readable indexing, for the sake of qualifying indexers in order to acquire suitable skills for automatic application; which has begun to spread  over a great number of documents houses and libraries of all kinds.

3.      It is necessary to take care of practical training and application. Whether it is the study of standards, lists or regulations. Concentration on automatic systems should be taken care of, And all that emanates from the fact that the main objective of technical processing curriculums is to qualify a person capable of doing technical work competently in an advanced electronic environment.

4.      To take good care of using advanced education technology in regard to teaching and training, it is highly recommended to use internet on teaching and training, and teaching with the help of computer, it is also recommended to use technical working tools accessible in an electronic form. Such a matter requires the preparation of modern educational books that meet these requirements.

5.       To emphasize the importance of continued education for the teachers of technical processing syllabuses, in order to be updated with the latest trends and developments in this field. And also emphasize the significance of constant professional progress for indexers at [SNTH], libraries and information centers, so that, they can acquire the skills of dealing with the updated systems continuously.

6.      Supporting a good qualification of competent indexers at [SNDH];requires   a consideration of the following:

A.      Central equipment and/or cooperative indexing and participation, or to benefit from the huge bibliographical utilities such as [OCLC], and that also applies to some basic programs such as indexing while publishing.

B.      To establish an Arabic bibliographical utility to build up a bibliographical database for Arab information sources.

C.      To translate into Arabic accessible technical working tools in an electronic form such as MARC2 and electronic [authority control] and to establish Arabic working tools in an electronic form; such as Arabic head lines list.

D.      To establish an automatic cross- reference control system for Arabic names.

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