Available online at www.elixirpublishers.com (Elixir International Journal)

Library Science

Elixir Lib. Sci. 72 (2014) 25466-25472

ISSN: 2229-712X

The national library of Iran and IRANMARC

Shahnaz Khademizadeh[1], Mortaza Kokabi[1] and Afagh Ghareh Veisi[2]

[1]Department of Knowledge & Information Science, College of Education & Psychology, Shahid Chamran University of Ahvaz, Iran.

[2]Library Science, Department of Information Science, City University London.

ARTICLE INFO

Article history:

Received: 24 May 2014;

Received in revised form:

19 June 2014;

Accepted: 2 July 2014;

Keywords

MARC, IRANMARC, UNIMARC, RASA,

The National library and Archives.

ABSTRACT

The National library and Archives of I.R. of Iran (NLAI) that began its computerized cataloguing in 1994 proposed a plan about "IRANMARC". This new format was based on UNIMARC. In September 2006, the national library began to adopt the format for all library material by using "RASA" software. The aim of establishing the national comprehensive system is to automate the working processes of the deputy for the national library and to store the records related to all library material based on universal standards. The comprehensive system of the national library is based on UNIMARC and IRANMARC. Currently NLAI has presented this format for all library material but the findings of recent researches on IRANMARC format indicated the established MARC format by the NLAI is not totally correct. This article suggests in order to have a homogeneous catalogue for all library material nationally, it is best to take a cautious and more accurate to change. The organization and of course more important than it RASA Committee could regulate wherever was necessary and give throughput to the experts at different levels.

Introduction

The growing trend of producing information in the world and the necessity to control the huge volume of information from libraries and bibliographic centres in all over the world, has compelled these kinds of institutes to remedy. On the other hand, communications development has resulted in further and faster spread of data transmission, and this issue for its part, has caused shared information in many parts of the world. How to manage the shared information, has closed libraries and bibliographic and information centers to each other in many respects. For this reason, today bibliographic information interchange among various libraries is of great importance either within a country or within different countries. A librarian who would like to reserve a library material prefers transcribing ready cataloguing in the sources having shared information and from everywhere this information is gained in the first stage, because basic cataloguing not only is not economic from the budget, energy and time prospective but also will result in the risk of a non-standard cataloguing.

Since 1950, Americans and Europeans have been planning to create a frame work for the bibliographic information exchange. To do this, it was imperative to standardize bibliographic descriptions. On the other hand the international standard association released ISO 2709 as the international standard for bibliographic information exchange. The new standard paved the way for information exchange through machine-readable systems.

In article "Iran national MARC format: theories and practice" Kokabi writes: "A librarian planning to store a piece of material through cataloguing always prefer to copy ready – made cataloguing through shared information, for not only is original cataloguing not economic with respect to budget, energy and time but it also results in a non- standard cataloguing." (Kokabi, 2002)

To remove the issue of the original cataloguing, it is for a quarter of a century that machine – Readable cataloguing has been in operation as a tool for bibliographic information exchange. It is now possible to read and process bibliographic information sources by computers using MARC systems.

MARC is an acronym for the Machine _Readable Cataloging. This general description may cause to misunderstand the concept of MARC, for MARC is not a variant of cataloguing.

MARC or Machine Readable Cataloguing is a labelling system of bibliographic elements for storing electronics and the data in a worksheet list by using it cab is ready in such a manner that the existing program on computer read all of them and acts subject to the command.

In reality, MARC format is designed to remove and facilitate labels dependence on each part of the cataloging records in order that the records are retrieved by computers. The MARC format was first designed to provide services for libraries. It was developed as a better way to store and disseminate bibliographic information which was expanding in the society.

The original MARC format was developed in 1965-1966 in line with a research project by the library of Congress and was later dubbed MARC I . The original format was established to provide catalogues data in the machine _ readable format. Simultaneously, similar projects were carried out in Britain. The British National bibliographic association began to work on establishing MARC BNB to make information machine readable for providing printed versions of the British national bibliography. The achievement made was based on Anglo - American cataloging rules and was consistent with MARC II in 1968.

The main objective of MARC II involved the following regarding MARC exchange format:

- Availability for all library material
- Flexibility for all applications with regards to cataloging outputs
- Availability for all automated systems

Tele:

E-mail addresses: Sh_khademizadeh@yahoo.com

These parallel efforts resulted in establishing various versions including English MARC and American MARC. Each of them became different variants of national MARC formats with regards to the countries special needs. In 1970s, MARC formats increased to over 20. Difference in the information structures led to reviews by humans before receiving MARC records, which affected greatly the computerized bibliographic information exchange of the world. To solve the lack of coordination of MARC formats, a new format called UNIMARC was established to conform to provide records by each MARC format. Thus MARC format records could be converted to another MARC format by this new format.

In 1977 IFLA introduced UNIMARC, which was a universal MARC format. The main purpose of UNIMARC is to facilitate international information exchange of machine readable systems among national bibliographic institutions. Though this format is an exchange one, many countries lacking a national machine-readable format apply it to store and retrieve the information. South Africa, the Czech Republic, Japan, Croatia and Iran are among the countries that have expanded their own national MARC by making changes to the UNIMARC.

This goal was pursued following the second UNIMARC version in 1980 and UNIMARC Manual in 1983. All the initial considerations were in line with serials and monographs in order to maintain bibliographic information features based on international standards for bibliographic descriptions.

The National library and Archives of I.R. of Iran (NLAI) that began its computerized cataloguing in 1994 proposed a plan about "IRANMARC" to the council of scientific researches of the country in 1997. The plan was approved later in the year. In March 1998, the national library embarked on establishing a national committee of IRANMARC which comprised 8 members. The committee then began to design IRANMARC which was based on UNIMARC. The permanent committee of IRANMARC which was part of the deputy for research and processing of the NLAI was charged for improvements and development of IRANMARC. Finally the first version of IRANMARC was presented to the NLAI. At the first stage only monograph cataloguing was considered, hence this version did not include audiovisual sources. (IRANMARC national committee, 2002). In September 2006, the national library began to adopt the format for all library material by using "RASA" software. (RASA is a comprehensive system of the national library based on UNLMARC and IRANMARC).

According to NLAI, the aim of establishing the national comprehensive system is to automate the working processes of the deputy for the national library and to store the records related to all library material based on universal standards. This software whose base is IRANMARC (domesticated form of UNIMARC) contains most of the similar leading foreign technologies, such as ALEPH and Innovative.

The manufacturing of this software began in September 2003 and was put to use in 2006 after going through several phases. In collaboration with domestic professional experts and using the existing library systems, the Pars Azarakhsh managed to complete the project. This project was one of several successful projects of TAKFA plan whose success owes to the close collaboration of administers and management groups. The comprehensive system of the national library is based on UNIMARC and IRANMARC. It mechanizes cataloguing processes, indexing, documentary making, FIPA, ISSN, orders, deposits, borrowing material registration, exchange and donation. This project enjoys search tools, OPAC, inter – library information exchange and supports Z 39. 50.

Features that have been the focal point of the adopters:

1-The initial UNIMARC version is the result of the cooperation among agencies and cataloguing committees of 16 countries that used to represent a broad spectrum of cataloguing requirements and national bibliography affairs.

2-To describe entry UNIMARC applies ISBD mark-up principles prevalent worldwide.

3-UNIMARC is specially designed for multilingual library material which is quite useful for the countries where different languages and writing codes exist.

4-UNIMARC is not particularly about a single piece of material. It is rather an integrated format for all library material regardless of their forms and types.

5-One of the salient properties of UNIMARC is consistency .The introductory part of UNIMARC Manual explains that the current UNIMARC texture (labels, markers, subareas) must remain relatively consistent. And the future changes of this format must be limited to the definitions of areas, subareas and added codes sums or areas and subareas described under a temporary title.

6-Not only is UNIMARC a communication format for exchanging bibliographic databases among different format, but it also could adapt to a UNISIST reference manual format through a common communication format.

7-To represent bibliographic relation among different material UNIMARC utilizes modern techniques.

8-At first UNIMARC was designed as an exchange format thus its functions were independent of any ad hen cataloguing system.

9-UNIMARC could adapt to a specific database of a library, thus it is applied simply as a processing format at any library.

10- Because UNIMARC is an exchange format, various devices are included to facilitate bibliographic data in different environments .The most useful of these devices is alternative character represented by"|". (Taylor, 2002, 82-84).

In sum, as an international exchange format designed and developed by IFLA, UNIMARC should consider other MARC formats. In case there is a need at the national and regional level to apply UNIMARC, it should provide the information to guarantee its adaptability to the other formats (Campus, 2003: 25).

In the mid 1980s, there was a need to extend the scope of UNIMARC to include documents in addition to monographs and serials. Hence, a new description of this format called UNIMARC Manual was introduced in 1987.

The purpose of the Manual was to expand the UNIMARC capabilities to be regarded as a model for developing new formats of machine readable bibliographic systems. More progress was made in this regard. A new format named Authorities came into prominence. Previously agencies would use authors' names differently in bibliographic formats. The new system having been implemented, the agencies began to create a well-documented and uniform outline of the name based on references and registered it in the authorities file .The record control number for the name was a specific one, hence the user always sees the authors' name in the bibliographic records but exactly based on what the computer retrieves from the authorities file at due time.

Finally, UNIMARC authorities were printed in 1991. In the same year, the permanent UNIMARC committee began to routinely monitor the format so as to expand it (UNIMARC guidelines No, 6 IFLA 2005: 7-16).

The National library and Archives of I.R. of Iran (NLAI) that began its computerized cataloguing in 1994 proposed a plan about "IRANMARC" to the council of scientific researches of the country in 1997. The plan was approved later in the year. In March 1998, the national library embarked on establishing a national committee of IRANMARC which comprised 8 members. The committee then began to design IRANMARC which was based on UNIMARC. The permanent committee of IRANMARC which was part of the deputy for research and processing of the NLAI was charged for improvements and development of IRANMARC. Finally the first version of IRANMARC was presented to the NLAI. At the first stage only monograph cataloguing was considered, hence this version did not include audiovisual sources. (IRANMARC national committee, 2002). In September 2006, the national library began to adopt the format for all library material by using "RASA" software. (RASA is a comprehensive system of the national library based on UNIMARC and IRANMARC).

History

MARC history begins from the late 1950s, which is the time when the possibility of machine-readable cataloguing data providing in the US Library of Congress was examined. Now there are two trends in the MARCs manufacturing: the first trend is national format designing based on one of two UNIMARC and USMARC formats; because UKMARC is less used for some reasons from this point of view. The second trend is the effort increasing flow to further integration of the formats; because the less existing differences among various formats, the more possibility of computerized cataloguing and bibliographic data exchange. Amongst these efforts, representatives visiting from the US Library of Congress and Library of Great Britain in 1994 can be pointed out to harmonization and simplification of both USMARC and UKMARC formats in line with increase consistency between two formats.

USMARC

The examination to mechanize library cataloguing began from the late of 1950s. For this reason, the Library requested budget for this research from the US Council on Library Resources. In the meantime the British National Bibliography (BNB) also expressed interest to participate in this plan and therefore it operated MARC2 program by using past experiences in which there were many library staff too. It was assigned that MARC2 body structure be capable of encompassing all bibliographic information material and related specifications such as name, subject, references and so on. Because of the program magnitude, it was assigned that in order to achieve the goal sooner, the library material be examined one by one. At first "book" was considered. In 1967 during another meeting, the MARC2 body structure was examined. In June 1968 the Library of Congress provided 50,000 books in English through machine readable records. It was reported in 1968. In 1969 the first MARC manual handbook was published with the help of American Library Association. Now, the Library of Congress has planned necessary figures in different languages even Non-Roman languages not only for all libraries but also for all of them (Soltani & Rastin, 2001).

UNIMARC

UNIMARC is a global list of machine readable that has been standardized subject to IFLA Working Group. UNIMARC specifies numbers, markers and subfields to record the machine-readable bibliographic systems. Its primary purpose is to facilitate the international exchange of machine-readable bibliographic data in national bibliographic entities (Soltani & Rastin, 2000).

Exchange formats and processing formats

MARC formats can be divided in two categories from the point of application range: exchange formats and processing formats. Some MARC formats are designed for information exchange within a certain system while other MARC formats are manufactured in order to facilitate the transfer of data between different systems. The first category is called the expressions such as "Internal Processing Formats", "Processing Formats", and sometimes "Working Formats". "Communication Formats" and "Exchange Formats" are the expressions using for the second category.

What is "IRANMARC" or "MARCIRAN"?

IRANMARC or MARCIRAN simply means a pattern to save bibliographic Information completely and correctly in Persian on computer.

Kokabi in his PhD thesis in 1946 investigated the IRANMARC and UNIMARC was proposed as a basis for the development of IRANMARC (Kokabi, 1994). Iran National Library three years after starting of computer-based cataloguing in 1996 proposed a plan about "IRANMARC" to National Scientific Research Council. The National Library constituted IRANMARC National Committee in the Persian date March1998, and chose global MARC for Iran and adapted it with the needs of cataloguing books in Persian and Arabic based on National Library experiences. IRANMARC is a format to storage, recovery and exchange of bibliographic information that is designed based on International Standard Bibliographic Description (ISBD) and by considering Persian cataloguing features based on UNIMARC format.

MARC certain advantages for Iran:

IRANMARC will have more advantages for libraries and documentation centers and generally the information network that most of them are as follows:

1. A National MARC format existence used by all libraries makes cataloguing uniform and as a result makes National Union Catalogue much easier to produce.
2. The process of automation in Iran libraries is quick and a national MARC format for Iran reduces waste of time, energy and money own repeating basic cataloguing that even its computer-based form is rendered by different formats.
3. Retrospective cataloguing is an issue concerning large collection of many Iran libraries not yet catalogued that should be noted in the near future.
4. In order to national computer bibliographic network development, a form of national MARC is essential.
5. Many libraries in Iran rely on Iran national bibliography for cataloguing their collections but delayed publication of Iran national bibliographies obliges them to do substantially cataloguing that obviously is not standard because there is not set of rules that a standard cataloguing by its help can be done for Iranian publication.
6. A national MARC format using by Iranian publishers can transfer necessary data online before publication to National Library of Islamic Republic of Iran and thereby develops the coverage of the national bibliography.
7. If the organizations and government agencies use this format to transfer their own publications data to the national library, the coverage of Iran national bibliography also will be more completed than before from the perspective of government publications.
8. There are very large collections in Persian around the world. Quick and sufficient exchange of bibliographic and cataloguing information among national libraries of Islamic Republic of Iran

and the institutions having these collections by Iran national MARC format using, would be possible.

9. Heretofore none of the Arabic countries has taken the format of national MARC. National IRANMARC format can be used as a format to make a national MARC format in Arabic countries because of linguistic and cultural similarities. Cultural similarities play an important role in this case.

What exchange format is best to be a basis for Iran national MARC creation?

According to the previously mentioned, at the beginning of the national MARCs, two MARC formats were based: America library of Congress now is known as USMARC, and National Bibliography MARC of Great Britain now is known as UKMARC. After UNIMARC emergence, the third format was based (Kokabi, 1995). The current increasing trend is making national formats for either USMARC or UNIMARC formats. Now, at least fifty-one institutions in forty-one countries are using UNIMARC either as processing format or exchange format (Plassard and Ratthei, 1999). It is worthy to note that USMARC format is not an exchange format contrary to UNIMARC that is made to exchange information among different organizations, but because of its widespread use globally, has taken the form of an exchange format.

Research History

Research History outside Iran

According to "Review of MARC format for serials" thesis, the study was conducted within and outside the country showed that apparently such a study has not been done. Because of limitations of present study of MARC evolution, Kokabi's thesis is used here:

Kokabi (1994) presented his PhD thesis titled "Building a machine-readable cataloguing format for Iran". The aim of this thesis is research on a Machine-Readable Cataloguing format for conditions of Iran bibliographic. In this research in the first stage Kokabi investigates technical features of the MARC and evolution and development of MARC formats for making bibliographic data encryption in America's Library of Congress and then has studied terms of Iran bibliographic through study of language and Farsi script features, filing rules, Iran cataloguing rules, Persian subject headings and National Bibliography. In the second stage, studying some of the UNIMARC-based formats, he defined that for some of the changes required, arrangements should be considered and he has presented another solutions by examining some of the other formats such as the UNICCO Common Communication Format and US MARC format. The results of the comparison data which has been extracted from Iran National Bibliography with UNIMARC showed that UNIMARC with a few changes can be responsible for needs of Iran Bibliographic.

Kokabi (1995) in his article titled "MARC internationalization: MARC emersion and divergence" has written about how the globalization of MARC and its divergence emerging and has pointed the reasons for the emergence of national MARC formats in different countries.

Kokabi (1995) in another article titled "MARC internationalization: UKMARC-based some MARC formats" has studied some formats that has been created by making changes such as AUSMARC that was created for the first time in 1973 by UK National Bibliographic Software; THIMARC that developed by Stephen Massil in 1976; Italy MARC known as ANNAMARC and a lot of efforts have been made to convert it to UNIMARC; and SINGMARC which developed by National Library of Singapore in 1979.

Kokabi (1996) in another article titled "MARC internationalization : USMARC-based some MARC formats" has studied some formats that has been created by making changes in USMARC such as Canada MARC that is the result of US, England, France, Italy and Germany MARC formats studying; France MARC; two MARCs that are using in Spain as follows:

1- IBERMARC that provides the most use for Spanish resources cataloging and indeed is retrieved from USMARC.

2- CATMARC that was created as a result of UKMARC development in 1987.

And INDOMARC that is completely similar to USMARC; although its outline is more consistent with INDOMARC

Kokabi (1996) in another article titled "MARC internationalization: UNIMARC-based some MARC formats and some other MARC formats" has argued about the problems concerning to international standards deficiencies for exchanging machine-readable bibliographic record, which include: Lack of international standards for cataloguing, Lack of international subjective control systems, Differences in language, Collections and codes of characters and non-Roman alphabet. Kokabi believes these problems have caused MARC different formats existence. In this article, South Africa, Taiwan, Japan, Croatia and Germany formats have been described and differences and local needs of each of them have been showed.

Kokabi (1996) in another article titled "Is the future of MARC assured?" has described the advantages which MARC can contain library resources to process and exchange bibliographic Information and then has noted the various organizations reasons to MARC acceptance as a standard. He goes on his article by mentioning ISO 2709 and using content designators like MARC in CDS/ISIS as some MARC sustainability reasons and believes that MARC format is convertible to Standard Generalized Mark-up Language (SGML). Kokabi concluded that as long as organizations tend to be exchanged and also as long as cost - bibliographic data transfer utility among the systems with different formats be important for the organizations, the future of MARC is guaranteed apparently.

Kokabi (1997) in another article titled "The Iranian adaptation of UNIMARC" that is the first serious study in the field of MARC for Iran with over 12 years of presence of computers in libraries, has set to MARC different formats, reasons of choosing UNIMARC and using Persian language in mechanize cataloguing and finally he has provided a list which should be created in UNIMARC that be usable for terms of Iran bibliographic.

Edita Lichtenbergova and Bohdan Stoklasova (1998) in an article titled "UNIMARC in Czechoslovakia libraries" that was presented at Sixty-Fourth General Conference of IFLA stated that completion of international standards in these libraries in the catalogue section has been attended to automate starting in the 1980s. Of course early stages of automation have been caught of knowledge of international standards absence plus no application of these standards. They believe that it is obvious that UNIMARC has been known theoretically, ideationally; however, many improvements are needed to be sued as an internal format successfully. The libraries should try to use UNIMARC to homogenization regardless of whether UNIMARC is used as an internal format or as a tool. They concluded that a global format enables backgrounds exchange to another formats without conversion and in order to creating an effective partnership among libraries, a common format usage

and coordinating in the cataloguing rules are considered as prerequisite.

McCallum (2000) in his article titled "MARC extension for bibliographic control in the Web: Challenges and Solutions" has argued about bibliographic records searching in the Web in three parts and finally concluded that librarians must keep pace with advances in technology highlight the important role in this way and for achieving to this goal must increase their technical skills and amount of cooperation.

Zahiruddin Khursid (2002) in his article titled "From MARC to MARC21 and beyond it: Some thoughts on MARC and Arabic language" has set to an issue about MARC format development in Arabic countries that includes a brief description of metadata schemes and similar schemes. He also has provided an evaluation about how MARC will be used for Arabic manuscript material, a description about usage amount of MARC in Saudi Arabia and searching for amount of Standard Generalized Mark-up Language versions function in the Arab world. At the end of the article, he has pointed to increased use of MARC format to describe the library material such as electronic resources and believes that different library institutes must emphasize on metadata coexistence and MARC and also he has criticized the Arabic libraries to use Arabic calligraphy in MARC format.

Campus in his paper titled "International MARC : A virtual format in a virtual era" in addition to making a clear picture of development process of this format, has discussed the challenges and relative issues and has made librarians familiar with the efforts collection that have been made so far in order to this format promotion.

Robert Bothmann (2004) in his paper titled "Cataloguing electronic book" has stated that electronic books are sources of non-cyclical monograph that are accessible directly or from distance. In this paper, it has been argued about electronic books as the sole manifestation and executive instruction for application of current cataloguing rules about these books has been provided. Cataloguing components used in this paper, are control fields and variable data that include: Classification, Formal titles, Title information, EDI data, Type and range of sources, Distributor and publisher information, Physical description, Description of series, notes and thematic analysis.

Bradford Lee Eden (2004) in his paper titled "Matadata and Librarianship: Will MARC Survive?" has stated that now standards and metadata scheme are part of the future of information. The librarian has recognized gradually that MARC is just one of the developed metadata standards that of coarse have a lot of strengths and weaknesses. He asks in this paper: Should librarians strive to develop the MARC standard? Is not there a more robust, user friendly and systematic metadata standards for organizing and providing information?

Anthony Mao and Frances Hsu (2006) in their paper titled "Chinese MARC (Taiwan) and its bibliographic database" have stated that China MARC format which published in 1982 , now is being used widely as machine-readable format among Taiwan libraries. This paper along with the current applications and the impact of this format, has argued about two subjects:

How China MARC was created and what are its differences with UNIMARC?

What are interior features of China coding system?

Finally, these authors have concluded that although UNIMARC well as between different standards have helped to create single code, however, is unable to mark all data elements in Chinese or Chinese to expand to include all details. The best solution for Chinese materials management is improvement of current standards.

Research history within Iran

Asadi Enjileh (1990) in his master's thesis titled "About MARC and UNIMARC systems and investigate the use of UNIMARC" was presented, in a study, in addition to external sources of study and observation of the work on the terminal of Scientific and Industrial Research Organization, interviews and questionnaires have been used too. The whole history of MARC, applications in libraries in different countries, and the study used a variety of MARC and history of UNIMARC format for simplified resource Iran has proposed.

Asadi Enjileh (1993) issued an article titled " IRAMARC to exchange English," in which it was suggested that the extensive use of databases MARC, its international form of UNIMARC, creating the basis for a national format for recording information is Farsi and the format is named according to how they have designed for themselves in other countries using the MARC format, it is called IRAMARC.

Kokabi (1995) in his article titled "Choosing the right format for bibliographic data transfer" to analyze an article in the "Journal of Information" as "IRANMARC: the proposed national model for the storage and exchange of bibliographic records" This article by another article titled "Shared Documents formatted in Argentina" in the " Journal of Information" was published for the comparison between what happened in Argentina and this is going to happening Iran at the end of the paper, to mention a few paragraphs in the written paper errors "IRANMARC model was proposed for the storage and exchange of bibliographic records" occurred.

Kokabi In another article titled "branded Iran" published in the journal Social Science and Humanities, Shiraz University, followed by a brief description of the technical characteristics marking, marking of public benefits, special benefits of a national brand provides and the requirements for the creation of national brands are described. He finally concluded that this type of building brands based on the Library of UNIMARC could be the beginning of positive change.

Yousefi and Daoodzadeh Salestani (2000) in an article entitled "Nusa library of software problems, Parsazrkhsh, and explore the data from MARC CD and internet", believe that one of the necessary and important features which is predicted in all of the library software is transfer of records from the MARC database CD. In this article in addition to pointing to UNIMARC and MARC formats, they have studied the formats conversions, the format integration, exchange format, and fixed and variable field. Finally, they studied and analyzed these software problems in the data transformation from the MARC CD.

Shiri (2000) in an article entitled "Metadata and its influence on machine-readable catalogs : Farsi model metadata for organizing Persian contact info " states that according to this fact that MARC format is a kind of metadata structure, over the past five years it has been coping and adaptation in other formats and metadata structures. In this article in addition to explaining the concept of metadata, he studies and analyzes the formats and different metadata models and their adaption and convergence.

Kokabi (2001) in another article entitled "transmogrification in organizational standards for information on Iran "after presenting some issues about information and discuss Iran bibliographic network, has studied need for standardization of cataloging to implementation of optimum IRANMARC and concluded that IRANMARC from two point

is faced with double-strength : The first resistance has an economic nature, and the second resistance can be in the result of IRANMARC node that of course he has proposed some solutions for the problems too.

National Committee of IRANMARC (2002) in a published book entitled "MARCIRAN "has studied different fields used in IRANMARC and has presented all of the needed references for IRANMARC at the end of the book. Indeed this resource plays role of a handbook for print monographs resources.

Kokabi (2003) in an article entitled "Illustrated material in Iran National Bibliography and IRAN MARC " has studied descriptive cataloging images in Persian books and concluded that Anglo-American cataloging rules is not coordinated with cataloging rules handbook plus the method used in Iran National Bibliography for book image description. At the end of the article he presented some proposals to create homogeneous in descriptive cataloging photo books.

Kokabi (2005) in another article entitled "Series in IRANMARC and Iran National Bibliography" has studied applications of machine-readable cataloging circumstances and OPAC and form lists and finally concluded that writing method and presenting a series in Iran National Bibliography, in some cases is faced with lack of coordination and this issue has caused IRANMARC cannot use series as a restore point. At the end of the article, he presented some solutions for this problem.

Fattahi (2006) in a book entitled "Periodicals Management "in chapter 9 has explained some matters about providing the collection and organizing and cataloging of periodicals. At first, he has paid to overview about history and factors in the development and publication of periodicals and studied serials division and serials species and components of a periodical publication and in the final part, he has paid to journal of periodic maintenance and protection.

Kokabi (2007) in an article entitled "Where is IRANMARC going to? IRANMARC studying in three steps " states that since IRANMARC production idea created as a thesis to now that IRANMARC in National Library Integrated System is as a part of documentation web site National Library of the Islamic Republic of Iran, three steps are navigated : IRANMARC as a PhD Thesis, IRANMARC handbook, and its operating form in National Library Integrated System. IRANMARC has changed within the three steps which constitutes the present context. What is to be presented in this paper, is dependence of each stage to the pre-changes and proposals, and also is to determine the point that whether IRANMARC is navigating a defect-oriented or perfectionist route.

Sorayayi (2007) in its master's thesis entitled "IRANMARC development for visual-audio resources "comparing its own research work and the work used by National Library, has presented a standard form for IRANMARC format for visual-audio resources.

Rashidi (2007) in its master's thesis entitled "IRANMARC development for electronic resources "comparing its own research work and the work used by National Library, has presented a standard form for IRANMARC format for electronic resources.

Kokabi (2008) in an article entitled "Weighting coefficient usage in subject headings in order to enhance retrieval information "states:

"In subjective cataloging, cataloger uses subjective headings to state the subject matter of the cataloging book. How to get a similar title in different list forms might be different. One heading might be the only specialized heading to a list form or be associated with one or more other headings. In the second case, according to the heading rank among other headings, that heading will contain a different weight theoretically. But in all these cases, these heading are considered equal: a point that can impact negatively on retrieval information. The present paper tries to present solutions in traditional cataloging, library software and IRAN MARC".

Conclusion

Iran is among the countries that have established its own MARC based on UNIMARC format which is an exchange format. This format is now applied to all library sources at NLAI. IRANMARC is a format based on IRANMARC Manual published by NLAI in 2000.

As mentioned above IRANMARC was only made for printed monographs and seemingly it lacked necessary fields for other sources including audiovisual and electronic serials sources. The national library then expanded IRANMARC format for all library sources. This new format was based on UNIMARC and designed in concordance with "RASA" project.

Currently NLAI has presented this format for all library material but the findings of recent researches on IRANMARC format regarding audiovisual and electronic sources indicated there could be shortcomings with the format, since this format is based on NLAI cataloguing may involve draw backs. In sum, the established MARC format by the NLAI is not totally correct.

It is suggested that the organization worksheet by using the findings of studies, be completed and used in the organization.

RASA (National Committee of MARC) council operating continue in order to holing Educational and administrative activities in this field and review and monitor right implementation of MARCIRAN by the organization that will help us to achieve control of National bibliographic.

In order to have a homogeneous catalogue for all library material nationally, it is best to take a cautious and more accurate to change. The organization and of course more important than it RASA Committee could regulate wherever was necessary and give throughput to the experts at different levels.

Suggestion for future research

Comparative study about MARCIRAN format with UNIMARC format for all materials such as manuscript and so on will enable us to be able form the bibliographic information to machine-readable and exchange with other countries. So, here a comparative study about MARCIRAN format for library materials as a continuation of this research that can be achieved through it is proposed.

References

Anthony Mao, C. and Frances Hsu, C., *Chinese MARC (Taiwan) and its bibliographic database*, 72th IFLA Conference (Seoul, 20-24 August 2006), Available at: www.ifla.org

Bothmann, R. 2004. "*Cataloging Electronic book.",* Library Resources &Technical Services 48 (1): 12-19.

Campus, F. 2003. "*International MARC: A virtual format in a virtual era",* translated by:A.N.Chakoli, Library and Information *(in Persian)* 6 (1): 23-33.

Eden, B. 2004. **"***Metadata and Librarianship: Will MARC Survive?"* Library Hi Tech 22 (1): 6-7.

Enjileh, A. M. 1990. **"***About MARC and UNIMARC Systems and Investigate the Use of UNIMARC in Iran"*. Master's Thesis. University of Tehran, Tehran (in Persian).

Enjileh, A. M. 1993. "IRAMARC Format to Exchange Farrsi Information." *Research on Information Science & Public Libraries (in Persian)* 3(1): 76-84.

Fattahi, R. 2006. *Periodicals Management*, Dabizesh, Tehran.

Guidelines for Coding Electronic Resources in Leader/06. Network Development and MARC Standards Office, Library of Congress, 7/1/99 Available at: http:// lcweb.loc.gov/marc/ldr06guide.html,LastRev, 2005, pp.7-16.

Khorshid, Z. 2002. *"From MARC to MARC 21 and beyond: some reflections on MARC and the Arabic Language."* Library Hi Tech 20 (3):370-377.

Kokabi, M. 1994." *Development of a Machine – readable cataloging (MARC) Format For Iran*." PhD Thesis., The University of New South Wales Australia, New South Wales.

Kokabi,M. 1995. "Choosing the Right Format for Bibliographic Data Transfer." *Faslname-ye Ketab* (in Persian) 7(3): 108-116.

Kokabi, M. 1995. " *The Internationalization of MARC, Part I: the emergence and divergence of MARC."* Library Review 44 (4): 21-35.
Available at: www.emeraldinsight.com

Kokabi, M. 1995. "*The Internationalization of MARC, Part II: some MARC formats based on USMARC."* Library Review 44 (6): 38-45.
Available at: www.emeraldinsight.com

Kokabi, M. 1995. "*The Internationalization of MARC, Part III: some MARC formats based on UKMARC"* Library Review 44(6): 46-51.
Available at: www.emeraldinsight.com

Kokabi, M. 1996**. "***Is the future of MARC assured?"* Library Review 45 (2): 68-72.

Kokabi, M. 1997."*The Iranian adaptation of UNIMARC*." International Cataloging and Bibliographic Control 26 (3): 63-65.
Available at: www.googlescholar.com

Kokabi,M. 2001."Transmogrification In Organizational Standards for Information on Iran." Journal of library and information science (in Persian) 35(37): 35-56.

Kokabi,M. 2002. Iran National MARC Format: Theories and Practice. Paper presented at the National Conference on Library & Information Science relying on usage and development computer catalogues in libraries of Iran. Mashhad: Ferdosi University of Mashhad (In Persian).

Kokabi,M. 2003. "Illustrated Material In Iran National Bibliography And MARCIRAN." *Faslname-ye Ketab* (in Persian) 14(4): 325-337.

Kokabi,M. 2005. "Series In MARCIRAN And Iran National Bibliography. *Faslname-ye Ketab* (in Persian) 16 (2) :67-74.

Kokabi,M. 2007. "Where Is IRANMARC Going To? MARCIRAN Studying In Three Steps." Faslname-ye ketabdari Mashhad (in Persian) 10 (1): 27-48.

Kokabi,M. 2008. "Weighting Coefficient Usage In Subject Headings In Order To Enhance Retrieval Information." Faslname-ye ketabdari Mashhad (in Persian) 11(1): 243-258.

Lichtenbergova, E. and Stoklasova, B.,*UNIMARC in Czech Libraries*, 64th IFLA Conference (Amesterdam, 16-21 August 1998). Available at: www.ifla.org

McCallum, S. 2000. "*Extending MARC for Bibliographic Control in the Web Environment: Challenges and Alternatives".* Available at: http://dlist.sir.arizona.edu

National Committee of IRANMARC. 2002. IRANMARC (in Persian).

Plassard,M؛ Ratthei,S. 1999. "*The international list of UNIMARC Users and experts*." International Cataloguing and Bibliographic Control 28 (2): 41-42.

Rashidi,V. 2007. "*Development of MARCIRAN for Electronic Resources*." Master's Thesis., Shahid Chamran University of Ahvaz, Ahvaz (in Persian).

Shiri, E. 2000. "*Metadata And Its Influence On Machine-Readable Catalogs : Farsi Model Metadata For Organizing Persian Contact Information*." Paper presented at the National Conference on Library & Information Science relying on usage and development computer catalogues in libraries of Iran. Mashhad: Ferdosi University of Mashhad (In Persian).

Soltani, P. ; Rastin, F. 2001. *A cyclopedic dictionary of library and information sciences.* Farhang Moaser, Tehran.

Sorayayi,P. 2007. "*Development of IRANMARC Format for Farrsi Audio- Visual Resources*." Master's Thesis., Islamic Azad University, Science and Research Branch, Ahvaz (in Persian).

Taylor, A. 2002. The Organization of Information. translated by: M.H.Dayyani, Computerized library, Tehran.

Yousefi,A ; Daoodzadeh Salestani,S .2000. Nusa Library Of Software Problems, Parsazrkhsh, And Explore The Data From MARC CD And Internet. Paper presented at the National Conference on Library & Information Science relying on usage and development computer catalogues in libraries of Iran. Ferdosi University of Mashhad (1999 In Persian), Mashhad:Iran, 27-28 November (P.P.283-305).