

INFORMATION ORGANIZATION IN IRANIAN LIBRARIES AND INFORMATION CENTERS: TRENDS AND DEVELOPMENTS

R. Fattahi, Ph.D.

Associate Professor, Department of Library and Information Science
Ferdowsi University of Mashhad, I. R. of Iran
email: fattahi@ferdowsi.um.ac.ir

Abstract - Information organization (i.e., cataloging, classification, abstracting and indexing) is a crucial service in libraries and information centers. Modern and standard practices in this regard started around 1960s in Iran. This paper outlines the development of modern practices in information organization in Iran. It illustrates how Iranian libraries and information centers implement standard practices and organize information for easy access. A number of international standard tools for information organization, such as AACR, ISBD, LCC, DDC, LCSH and MESH have been modified to fulfill the needs of different types of libraries. The CIP project is successfully implemented nationwide and the Iranian National Bibliography is now a standard source available online and on disc. Furthermore, indexing and abstracting services in Iran benefit from standard practices. So far many general and subject thesauri have been developed and used in Iran. A major step towards information organization is the design and development of a considerable number of online and on disc databases by Iranian libraries and information centers. Teaching, research and publishing in information organization are flourishing due to the establishment of many library departments and schools during the last two decades.

Keywords - Information Organization, Information Retrieval, Cataloging and Classification, Iranian Libraries.

INTRODUCTION

Iran has a long history of traditional librarianship, great libraries and large manuscript collections. There are many evidences in the literature which show that such large collections utilize some sort of locally-developed classification systems for the ease of access. There are also a number of old descriptive bibliographies arranged by subject or title [1,20]. However, the concepts of modern librarianship and modern methods of information organization are relatively new in Iran. This is due to the fact that modern libraries in Iran have a history of less than a century, their collections have grown very slowly, and that during the past years there were no librarians who could organize the collections based on new standards.

The establishment and development of many library departments and schools in the last two decades have had a great impact on the development of information organization practices in almost all types of libraries in Iran. The history of librarianship in Iran goes back to about half a century ago when the Iranian government asked American experts to help Iran with designing socio-economic development plans in the mid-twentieth century particularly after World War II [9]. The first library department was established in 1965 in Tehran University. Other library departments and schools appeared during the following decades particularly in the 1980s and 1990s. There are now more than 70 library departments at different levels (college, undergraduate, Masters, and doctoral) in Iran. As will be discussed later, subjects such as cataloging, classification, abstracting and indexing were among the main mandatory subjects in the curriculum at different educational levels. Librarianship graduates had to have a good knowledge of cataloging and classification when applying for a job in the library because most of the collections in Iranian libraries had not been organized and, therefore, were not accessible to users.

This paper aims to provide an overview of the state of the art of information organization in Iranian libraries and information centers. It also attempts to illustrate the major issues influencing the organization of information (i.e., cataloging, classification, abstracting, and indexing) in Iran.

CATALOGING AND CLASSIFICATION

There was no standard practice in cataloging and classification in Iran before the establishment of TEBROC (Tehran Book Processing Centre) in 1968. The National Library of Iran, due to lack of professional librarians, was not able to standardize the practice among Iranian libraries. Publishing of the *Iranian National Bibliography* by the National Library, started from 1963 to 1983, was not a standardized catalog. It was TEBROC, with its professional librarians, that had a great impact on standard cataloging and classification for libraries in general and for university libraries in particular. TEBROC not only improved the practice of standard cataloging in Iran but also it was very effective for the propagation of modern librarianship [4]. Cataloging services and the products (i.e., *List of books cataloged by TEBROC*; *Union catalog of Latin books in Iranian libraries*; and *the printed catalog cards*) became very popular among different types of libraries. TEBROC also had impact on teaching of modern cataloging theories and practices. This center later, in 1983, merged into the National Library of Iran with all its professional librarians to form the basis of modern cataloging services at the national level.

As mentioned earlier, teaching of cataloging and classification was the main concern in the curriculum of library departments. In this regard, LIS curriculum is influenced by the American model of library education [9]. Iranian librarianship educators were taught cataloging and classification courses based on standards and practices developed by either

the American Library Association (ALA) or by the Library of Congress. For the last four decades of LIS education in Iran, librarians and librarianship educators have been using many of the cataloging tools and sources developed by these two leading American organizations (American Library Association and the Library of Congress). This, as will be mentioned later in this paper, can even be noticed in the authored or translated cataloging sources and also in the development of national cataloging tools and standards. Other American tools translated and/or adapted to Farsi are *Library of Congress List of Subject Headings (LCSH)*, *Medical Subject Headings (MESH)*, *Library of Congress Classification Schedules (LCC)*, and *Dewey Decimal Classification (DDC)*. In addition to American tools, which are in use internationally, Iranian library profession benefit also from international standards such as the International Standard Bibliographic Description (ISBD), Universal Decimal Classification (UDC), UNIMARC and so on.

- DEVELOPMENT AND USE OF NATIONAL CATALOGING STANDARDS AND TOOLS

One of the first and yet the most important cataloging codes used in Iranian cataloging agencies, libraries and school libraries is the Anglo-American Cataloging Rules (AACR). Part 1 of the first edition (AACR, 1967) and the whole text of the 2nd edition (AACR2 1987) have been translated into Farsi^[1]. Other Farsi cataloging textbooks and tools are based on AACR2. National Library of Iran has so far developed and published relevant changes and modifications to AACR2: Manual of cataloging rules is an abridged tool relevant to the cataloging of Farsi books [16].

International Standard Bibliographic Description (ISBD) is another cataloging standard being used in AACR2. There are a range of different ISBDs being developed by IFLA for different library materials. The manual of ISBD (General) has been translated into Farsi^[2] and is widely used in the Iranian National Bibliography and also in many other library catalogs. This standard practice had made easy the understanding of bibliographic information by library users. The standard is also one of the three usual display formats in computerized catalogs too.

Classification schedules are the main tools for the physical organization of information sources. The two most internationally used classification systems (i.e., Library of Congress Classification and the Dewey Classification) are widely used in all types of libraries in Iran. Traditionally, university libraries use LCC and public libraries use DC. Furthermore, to adjust these classification systems to the needs of Iranian libraries, National Library has developed a number of expansions to LCC and DC mainly in areas such as Iranian history, Iranian geography, Farsi language and literature, and Islam.

Authority lists are vital to information organization in terms of standardizing the bibliographic data. A number of different Farsi authority lists of names and subjects have been developed and published in Iran. The Name authority list of authors and famous

people [13], List of Iranian government organizations and institutions [2], List of Farsi Subject Headings [19], and Farsi Medical Subject Headings [15] are the four main authority lists which have been developed and published so far. To make these tools up-to-date, the publishers provide irregular supplements.

- THE IRANIAN NATIONAL BIBLIOGRAPHY

The history of publishing a national bibliography for Iranian publications (Farsi as well as other local languages) is not an old one. It is interesting to note that the initiation for such a tool came from individual librarians rather than the National Library of Iran. The publishing of *Ketabhaye Iran* [Iranian books] (from 1954 to 1964) by Iraj Afshar and Hossein Bani-Adam can be considered the first organized attempt in providing information on Iranian printed books. Another major work was *Fehreste Ketabhaye Chappi-ye Iran* [list of Farsi printed books] by Khanbaba Moshar which was first published in 1958 and then with many more additions in 1973. The Iranian National Bibliography (INB), which was published by the NLI from 1963, did not follow any international standard and was not up-to-date and comprehensive in terms of its coverage. It is worth mentioning that, due to lack of professional librarians and bibliographers at that time, there is little evidence of subject bibliographies of printed books in Iran prior to the 1970s when the number of educated librarians grew considerably. Tasbihi [20] reports the proliferation of subject bibliographies published up to 1985.

The amalgamation of TEBROC in the National Library in 1983 revived the Iranian National Bibliography (INB). In terms of the structure and coverage, the new Iranian National Bibliography attempted to be perfect. The new structure was based on the Dewey Decimal Classification with relevant indexes. INB was fully in accordance to international standards such as AACR2 and ISBD (G). It was ranked 14 by IFLA [18]. However, in terms of timeliness and due to lack of enough facilities, INB is a bit late in representing and cataloging all the books published during the period covered [3]. INB, now published and available only in electronic format (online and on-disc), is a useful source to copy cataloging. The first version published in 1986 covered 53530 records while the latest version (March 2006) covers 320500 records.

- THE CIP PROJECT

To save time and money in information organization, it is strongly recommended that each book or any other information sources be cataloged only one time. Once a book is cataloged, other libraries and cataloging agencies can use the record with minimum modification. To achieve this goal, Library of Congress started a pilot project called "cataloging in publication data" in 1958. The project was then improved and resumed in 1971. This

added-value trend is nationally and internationally welcome in many countries.

With regard to implementing the CIP project at the national level in Iran, NLI, which started the work in the mid-1980s, has been very successful. Due to a law approved in the Parliament, all publishers must do the CIP before printing out their publications. This has made a huge workload for NLI and some large libraries in different provinces which help NLI in this respect. In 2002, nearly 25500 titles obtained CIP of which 1245 titles were reprints. Almost 90% of new Iranian publications are fully cataloged before publication [10]. The outcomes of the CIP project in Iran make it possible for all types of libraries to do copy cataloging with local modifications. However, one major complain from Iranian publishers is the long delay in doing the CIP.

- IRANMARC

Automation of library catalogs in Iran suffered from lack of a national or international MARC format in its first decade of development. In fact, no bibliographic network existed or was available to Iranian catalogers from which they could transfer and download bibliographic records in their local systems. It was about 15 years after the beginning of software development and library automation that the National Library established a committee to study and develop a national MARC format for Farsi publications. Based on Kokabi's doctoral dissertation at the University of New South Wales (Australia) and based on the report of a study group, NLI decided that UNIMARC would be the most relevant format on which Iran MARC could be developed [11,14]. The manual is now available to libraries and software development companies. However and in contrast to NLI, another official body, the High Council for Information Services, approved MARC21 as the standard format for Iran. This discrepancy in such a national issue has made the condition difficult for libraries and software development companies to decide on.

- THE IRANIAN BIBLIOGRAPHIC NETWORK

In spite of the need for a national bibliographic network, Iran has not achieved this infrastructural requirement for information management yet. Due to lack of enough financial and technical resources, NLAI^[3] has not been able to plan for such a national infrastructure for information organization and transfer. Its first attempt in this regard failed in the late 1980s because of its dis-coordination and weak planning for such a huge project. Nevertheless, NLAI has this national project in its works for the near future. With the Internet facilities in place, it is easier to establish a cooperative cataloging network using client/server architecture. Similar experiences in establishing and management of bibliographic networks such as OCLC^[4], WLN^[5], and RLIN^[6] would help the National Library in this respect. One major issue is to develop a powerful client/server system that

would be able to carry out online transactions. This includes the issue of developing a multi-lingual language and multi-script interface.

The National Bibliographic Network could also help different types of libraries with the practice of acquisitions and the implementation of Inter-library loan.

ABSTRACTING AND INDEXING

Like TEBROC, the Iranian Documentation Centre (IRANDOC) was established in 1968 to improve abstracting and indexing services in Iran through providing intensive literature analysis services, and publishing bibliographies and reference sources for scholarly uses [17]. One of the main functions of IRANDOC was to regularly publish abstracts and indexes in science and social sciences (i.e., *IRANDOC Science and Social Science Abstract Bulletin*). It also managed to publish *Content Pages: Iranian Science and Social Science Journals* which was the first current awareness service in Iran. Publishing of numerous subject bibliographies in different fields, a couple of directories and one union list of serials were among other services by IRANDOC.

Unfortunately, although IRANDOC had planned to use automated systems for some of its information activities, it was not able to achieve this at the time (i.e., in the 1980s) due to lack of financial resources and lack of encouragement by the government [17]. However, since the early 1990s the center achieved this and other goals through restructuring and reorganization. IRANDOC, Iranian Information and Documentation Center, is a national research as well as service agency for information benefiting from professional librarians, indexers, subject specialists, IT experts, and excellent computer and network facilities. It has designed and developed many databases available to public.

Another important library, which has influenced LIS practices in general and A&I services in particular in Iran, is the Regional Library of Science and Technology. RLST was established in 1991 under an agreement reached between the Islamic Republic of Iran's Ministry of Culture and Higher Education and the Third-World Academy of sciences. It was meant to act as the regional center for reference, study and bibliographical information and other services in relation to both scientific and technological matters (Regional Library of Science and Technology, 2006)^[7]. As will be explained later, the library has so far contributed well to information organization through the development of a number of online Farsi and non-Farsi databases in subject disciplines. Nevertheless, one of the most important initiatives carried out recently at RLST is the Farsi Science Citation Index developed in 2005. The database replicates the structure of ISI Science Citation Index and has some good searching and reporting features relevant to Farsi scholarly-ranked journals and their articles citations. The Ministry of Science, Research and Technology has acknowledged this database as the formal basis for the assessment of impact factor for Farsi journals.

In addition to the above-mentioned national information centers, a number of large libraries do abstracting and indexing for their own holdings. Central libraries at large public universities and also specialized libraries are among those centers which do A&I for sources such as dissertations, research reports, journal articles, government publications, etc. Astane-Quds Central Library and Documentation Center is a large public library which has developed a number of A&I databases for different collections such as old manuscript, dissertations, local documents, and digital objects.

DEVELOPMENT OF THESAURI

One of the main concerns of information centers in Iran has been to construct general and subject thesauri for indexing the specialized sources of information. This trend has developed in the last decade. IRANDOC has so far developed and published a number of thesauri in Technology, Engineering, Chemistry, Physics, Biology, Earth Sciences, and Sociology^[8]. A useful by-product of such an activity by IRANDOC is the development of a software for online administration of the thesauri. Similarly, RLST has translated and published the INSPEC thesaurus in 2005. NLAI also published the first edition of ASFA Farsi Thesaurus of Culture in 1995 and its second edition in 2002. The transformation of the *Farsi Medical Subject Headings* into the *Farsi Medical Thesaurus* (2005) can be considered a further step toward indexing rather than cataloging of medical information.

It is interesting to note that, in addition to the abovementioned national information centers, a couple of Islamic research institutes in Qom (such as the Islamic Publicity Organization Information Center) have developed subject thesauri in Islamic fields. *Thesaurus of Islamic Law Principles* (1999), *Thesaurus of Koranic Sciences* (1997), *Thesaurus of Islamic Philosophy* (1997) are some of the products. It seems that more Farsi subject thesauri will be published by different information centers as the need for indexing of specialized materials is growing in Iran.

DESIGN AND DEVELOPMENT OF DATABASES

Designing databases is now a crucial part of information services. Many Iranian libraries and information centers have managed to design and develop databases as part of their long-term plans. As mentioned earlier, IRANDOC and RLST have been very successful in designing and constructing different Farsi and non-Farsi databases. Due to its expertise in A&I services, IRANDOC has so far constructed a number of comprehensive databases such as the following:

1. Abstracts of research projects in Iran
2. Iranian dissertation abstracts
3. Abstracts of scientific and technical articles

4. Abstract of theses and dissertations of Iranians graduated abroad
5. Index of Latin periodicals available in Iranian specialized libraries
6. Titles of the articles presented in seminars and summits held in Iran
7. Information concerning Iranian scholars and experts
8. Information on educational sciences
9. Information on the Caspian Sea
10. Bibliographical information on Medical Sciences

All these products are available for online searching at IRANDOC's Website (www.irandoc.ac.ir). The search/retrieval capabilities necessary to such databases are fairly standard. IRANDOC has developed a common searching interface for all the databases. Some of these databases provide full text access.

Like IRANDOC, the Regional Library of Science and Technology has invested much energy on constructing different databases. Databases designed and implemented so far by RLST are in the following fields: Earthquake, Energy, Environment, Flood, IR.Metallurgical Industries, IR.Industries, Iranian Experts, Mines of IRAN, Transportation, and IR.E-Law. It has also developed some online general databases such as Integrated Database, E-Articles, E-Atlases & Maps, E-Books, E-Journals, and EDMS (Electronic Document Management System). Also the Web-Based Full-Text Database on Farsi Electronic Journals is another achievement at RLST. This database, which is a growing system, scans and indexes many Farsi journals and provides users with different searching capabilities.

A number of other information centers and libraries have designed and implemented databases mostly in special fields. Astane-Quds Central Library (www.aqlibrary.org) and a number of Islamic information and research centers, particularly in the religious city of Qom have produced a range of databases mainly in Islamic fields. It should be added that most of such databases have been designed either in Pars Azarakhsh or NOSA library software. Other databases designed use MySQL, Microsoft Access or similar software.

This is a common trend in many special libraries and central libraries in Iranian universities. Nevertheless, there is still more need for subject databases which can provide access to information resources in special fields. A point worth noting in this respect is that many of the databases designed and implemented in Iranian libraries are funded and financially supported through the TAKFA Grant Facilities provided by the High Council for Information Services established in the late 1990.

One major step towards developing sophisticated databases with more search/retrieval capabilities has been to integrate online thesauri in the interface of the databases. NOSA software is a successful example of such a trend. In addition to records retrieved in NOSA, all the broader, narrower, and related terms are displayed and a user can modify his/her search with new terms suggested. The hypertext environment makes it easy for the user to navigate related records in the database. This is a great achievement in Iran which can

be exposed in an international level.

It can be concluded that the design and development of specialized databases in Iranian libraries and information centers have been major achievements in responding to local information organization.

INFORMATION ORGANIZATION ON THE WEB

Designing Websites and providing library users with electronic information are now prevalent in many universities and special libraries in Iran. In addition to providing access to different local, national or international databases through Websites, Iranian libraries attempt to organize electronic resources available on the Web particularly free and open access sources. Findings of a research by [6] show that Iranian libraries, particularly university libraries, take different approaches to information organization on the Web. Categorization of electronic resources by subject, title and type of resource are dominant approaches now.

It should be noted that no Iranian library has yet attempted to catalog Internet resources according to traditional standards such as AACR2. Therefore, information about Internet resources cannot be searched through Iranian library OPACs [8].

TEACHING, RESEARCH AND PUBLICATIONS IN INFORMATION ORGANIZATION

As mentioned at the beginning of this paper, teaching information organization (i.e., cataloging, classification, abstracting and indexing) forms an important part of LIS curriculum in Iran [5,7,12]. Although this trend in library schools in developed countries is no longer as important as two decades ago, this emphasis in Iranian LIS is emphasized due to the fact that a considerable portion of library collections in Iran is not organized (cataloged, classified, indexed) and there has not been a national bibliographic network in operation which can be used to share cataloging data all over the country. Therefore, every library had/has to do its own cataloging. The need for expert catalogers and indexers is still on top of the job market in Iran.

The courses in information organization value 12 units plus some internship units at the undergraduate level. Abstracting and Indexing form a 2 unit course at the graduate (Masters) level. However, one can see little evidence of short courses or workshops being held in Iran to make catalogers and indexers' knowledge up to date.

Research in information organization in Iran seems to be at its beginning stage since most Iranian librarians are involved in practice and spend little time on research. The existing body of research in this area which mostly includes Masters and Doctoral dissertations counts little in comparison to other areas [16]. There are still some major questions to be answered with respect to local issues in information organization in Iranian

libraries and information centers.

Unlike the dearth of research in information organization, publishing of many textbooks, manuals and articles is a strong evidence for the significance of information organization in teaching and practice in Iran. There are now many Farsi publications in almost all specialized fields of information organization.

CONCLUSIONS

Information organization, like other issues in the field of library and information sciences, is always in a state of change and evolution due to the impact of new forms of information sources (i.e., electronic and multimedia) and also of the advent of new technologies.

It should be emphasized that, in the move towards standardization of information organization in Iran, TEBROC and NLI had a crucial role in developing and implementation of modern ways and means such as cataloging rules, expansion of local classification schedules, ISBD, CIP, and IRANMARC.

Iranian libraries now benefit from standard tools and practices in information organization. It can be said that the collections in different types of libraries, particularly university libraries, are organized according to modern international practices. To provide the necessary information, many libraries have their catalogs available online on the Internet. It is now possible to search many Iranian catalogs online and also in an integrated environment.

ENDNOTES

1. Anglo-American Cataloging Rules, second edition, translated [into Farsi] by Rahmatollah Fattahi. Mashhad: Astane-Quds Razavi, 1992.
2. International Standard Bibliographic Description (ISBD), translated by Morteza Kokabi into Farsi.
3. After the National Archives was amalgamated in the National Library, the name of the new organization has become National Library and Archives of Iran (NLAI)
4. Online Library Computer Center
5. Western Library Network
6. Research Libraries Information Network
7. www.srlst.com
8. These thesauri can be accessed at <http://thesaurus.irandoc.ac.ir/>

REFERENCES

- [1] Afshar, I., "Fehrest-Namaye Ketabshenasihaye Iran" [Bibliography of Iranian Bibliographies]. *Iranshenasi*, No. 1, p. 6, 1970.

- [2] Behnam, M., *Fehrest-e Mustanad-e Sazmanha va Mo'assesat-e Dowlati-e Iran [List of Iranian Government Organizations and Institutions]*. Tehran, Markaz-e Asnad va Madarek-e Iran, 1989.
- [3] Bell, B. L. et al., "An Examination of National Bibliographies and Their Adherence to ICNBS Standards and Recommendations: Final Report to the IFLA Standing Committee on Bibliography." Available: at <www.ifla.org/VII/s12/pubs/sbrep.pdf>, 2001.
- [4] Ebrami, H., "Libraries in Iran." in: *Encyclopedia of Library and Information Science*. New York, Marcel Dekker, Vol. 13, pp. 15-53, 1975.
- [5] Dayyani, M. H., "Changes in the M. A. Curriculum of Library and Information Sciences in Iran." *Iranian Journal of Information Science and Technology*, Vol. 4, No. 1, pp. 87-101, 2006.
- [6] Fattahi, R., and Hassanzadeh, M., "An Investigation into the Approaches to Information in University Library Websites." in: *Proceedings of Monthly Seminars of the Iranian Library and Information Association*, Tehran, ILISA, Vol. 2, pp. 177-204, 2004.
- [7] Fattahi, R., et al., "The New M. A. Curriculum for Library and Information Science: The Report of a Research." *Iranian Journal of Information Science and Technology*, Vol. 4, No. 2, pp. 69-81, 2006.
- [8] Haji-Zeinolabdeini, M., *A Study of Issues in the Cataloging of Internet Resources and Suggesting a Manual for Iranian Libraries: Fehrestnevisi-e Manabe'e Interneti*. MLS Dissertation. Tehran, Iran, University of Medical Sciences, 2002.
- [9] Hayati, Z., and Fattahi, R., "Education for Librarianship in Iran before the 1979 Islamic Revolution: A Historical Review of the American Roles and Influences." *Library Review*, Vol. 54, No. 5, pp. 316-327, 2005.
- [10] Khosravi, F., *Annual Report to CDnl 2002-2003*. Available: at <www.nla.gov.au/initiatives/meetings/cdnl/2003/iran.rtf>, 2003.
- [11] Kokabi, M., "The Iranian Adaptation of UNIMARC." *International Cataloging and Bibliographic Control*, pp. 63-65, 1997.
- [12] Kokabi, M., "An Account of Cataloging and Classification Education in Iranian Universities." , pp. 431-442, 2006.
- [13] Mowlavi, F., *Fehrest-e Mostanad-e Asami-e Mashahir va Mo'alefan [The Name Authority List of Authors and Famous People]*. Tehran, Tehran Book Processing Center, 1997.
- [14] "National Committee on IRANMARC." *IRANMARC*, Tehran, National Library and Archives of Iran, 2002.
- [15] Rahadoost, F., *Fehrest-e Sar'unvanhaye Pezeshki-e Farsi [Farsi Medical Subject Headings]*. Tehran, National Library of Iran, 1993.

- [16] Sadigh-Behzadi, M., *Chekide-namaye Payan-namahaye Ketabdare va Etela'rasani [Dissertations Abstracts of Library & Information Science]*. Tehran, National Library of Iran, Jihad Information Center, 2000.
- [17] Sinai, A., "Iranian Documentation Center (IRANDOC)." in: *Encyclopedia of Library and Information Science*, New York, Marcel Dekker, Vol. 13, pp. 53-60, 1975.
- [18] Soltani, P., "Iranian National Bibliography: An Approach to New Standards." *International Cataloguing and Bibliographic Control*, Vol. 18, No. 2, pp. 30-32, 1989.
- [19] Soltani, P., et al., *Fehrest-e Sar'unvanhaye Mowzui-e Farsi [List of Farsi Subject Headings]*. Tehran, National Library of Iran, 2002.
- [20] Tasbihi, G. H., *Negareshi Jame Bar Jahane Kitabshenasia: A Comprehensive View of the World of Bibliographies*. Tabriz, Nima, 1986.

Department of management, Faculty of Economics and Administrative Sciences, Ferdowsi University of Mashhad, Mashhad, Iran. m-lagzian@um.ac.ir. 3. Progressive Science Institute, Box 5335, Berkeley, CA, 94705, USA. Abstract. In this opinion piece, we present a synopsis of our findings from the last 2 years concerning cyber-attacks on web-based academia. We also present some of problems that we have faced and try to resolve any misunderstandings about our work. We are academic information security specialists, not hackers. Finally, we present a brief overview of our methods for detecting cyber fr 46 3 Department of Library and Information Sciences, Ferdowsi University of Mashhad, Iran Abstract. During the development of FRBRized OPAC prototypes in recent decade it seems that the user is gradually being ignored. Users' views toward the collocation function in bibliographic families and their understanding of FRBR entities are vital for the development of OPACs. Although most of the OPAC users are not familiar with FRBR concepts and terminology, they have the ability to define and draw relations among bibliographic entities. This paper reports the process of applyi Ferdowsi University Of Mashhad | FUM Â· Department of Library and Information Science. 6.98. Â· PhD., Professor. Contact. About.Â Abstract: Purpose: The purpose of this research lies in analyzing strategic plan dimensions for research development in the Organization of Libraries, Museums and Documentation Center of Astan Quds Razavi. For this purpose, current status of research in the organization for four strategic development dimensions (attitude, policy, management, staffi