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STANDARDS FOR INFORMATION HANDLING

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[Briefly surveys the standards in information and documentation field at national and international levels. Describes the information technology standards and its importance in librarianship. Features of the standards, their use, different types of standards and standards are also discussed.]

1. INTRODUCTION

As it is recognized that the information is one of the most vital resources of the world, it is to be effectively developed, conserved, distributed and utilized. The basic objective of any library or information center is to manage the information effectively. In order to achieve certain level of quality consistency there should be some sort of standards, which can help in the optimization in the utilization of resources and facilities of the total system.

Standards are helpful in bringing uniformity and order and acts as an essential guide for the establishment of new libraries and in the improvement of the existing ones. They are also required as the guide to the level of financial, material, and human support necessary to ensure that libraries will be able to fulfill their responsibilities to the users.

As the demand for the information is increasing day by day, technological development in information handling and increasing emphasis of new and diverse service prompted to have co-ordinate efforts in handling of information and providing service to users or information seekers. Capability of information system is essential for co-operation and co-ordination among information units, systems, and services. In this context standards become highly significant.

‘Standards help in rationalization of methods and techniques of handling equipment, documentary products, and their intellectual tools and harmonization of products. This in turn facilitates documentary operations, reduce the costs, cuts down delays and permit exchanges’.

Every organization should try to adopt standards to the extend possible. Though standards are not compulsory in the library and information field, many of the system demand formulation and implementation of standards for economy in terms of money, material manpower and time.

2. WHAT IS A STANDARD?

Standards have been with us for a very long time. Albert Batik in his informative book “A guide to Standards” notes that the code of Hammurabi, which was developed long back ago, includes instruction for manufacture for brick, with specification for “ the clay, straw, and water content”.

As standards are the fundamental to many aspects of modern life including science, technology, industry, commerce, health and education it is important to clarify ‘what standards are?’

According to Encyclopedia of library and information science standards and specifications are documents that stipulate or recommend (a) minimum levels of performance and quality of goods and services (b) optimal conditions and procedure for operation in science, industry, and commerce – including production, evaluation, distribution, and utilization of materials, products, and services.

Carl F. Cargill defines “ a standard is the deliberate acceptance by a group of people having common interest or background of a quantifiable metric that influences their behavior and activities by permitting a common interchange”

According to American National Standard Institute (ANSI) “A standard is a specification accepted by recognized authority as the most practical appropriate current solution of a recurring problem.

‘Probably the finest and most specific statement on standards for libraries may be found in the introduction to *Standards for South African Public Libraries*: Library standards may be defined as the criteria by which....library services may be measured and assessed. They are determined by professional librarians in order to attain and maintain the objectives they have set themselves. Standards may be interpreted variously as the pattern of an ideal, a model procedure, a measure for appraisal, a stimulus for future development and improvement and as an instrument to assist decision and action not only by librarian themselves, but by laymen concerned indirectly with the institution, planning, and administration of...Library service’

So we can say standardization is the collective effort through which standards are established, and this standards are some sort of technical specifications containing a set of conditions to be fulfilled. These are usually for guidance but sometimes mandatory, at least in practice. These are issued by companies, associations, or groups, government bodies, national, regional or international standards bodies.

2.1 Types of Standards.

The term standards and specifications covers a variety of documents including standards, specifications, codes of practice, recommendations, guidelines, nomenclature, terminology and so on. Although several distinct types of standards and specifications can be recognized on the basis of their purpose or formulating agency, Many standards specifications are composite in nature and possess the characteristics of more than one type. Based on their purpose the following major types of standards can be identified such as

- Performance standards
- Dimensional standards
- Standards for test methods
- Material standards
- Codes of practice
- Standards of terminology and graphic symbols.
- Documentation standards

3. AREAS OF APPLICATION OF STANDARDS IN INFORMATION FIELD

Library and information units apply standards mainly in the following areas:

- ❑ Processing of documents
- ❑ Presentation of documents
- ❑ Reproduction of documents
- ❑ Conversion of written language
- ❑ Terminology
- ❑ Library statistics and performance evaluation
- ❑ Building and equipment
- ❑ Computer application
- ❑ Abstracting and indexing
- ❑ Inter change of bibliographic databases

4. STANDARD MAKING BODIES

Standards are developed in different ways through out the world. They can be produced by the government agencies, by trade associations, or by professional associations. Most of the countries have their own national standard organizations like the Canadian General Standard Board (CGSD), Bureau of Indian standards (BIS) etc.

In United States The principle standard making body is American National Standard Institute (ANSI), which charters committees and accredits the other groups, to formulate standards .The NISO is one of the bodies that ANSI accredits for the purpose of developing standards in a specific area. In the international scene, the International Organization for Standardization (ISO) is the primary standard making body.

4.1 International Organization for Standardisation (ISO)

The International Organization for Standardization (ISO) is a world wide non - governmental federation of national standards bodies from some 130 countries, one member from each country. The mission of ISO is to promote the development of standardization and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity.

It is noticed that a seeming lack of correspondence between the official title when used in full, International Organization for Standardization, and the short form, ISO. Shouldn't the acronym be "IOS"? Yes, if it were an acronym – which it is not. In fact, "ISO" is a word, derived from the Greek “isos”, meaning "equal", which is the root of the prefix "iso-" that occurs in a host of terms, such as "isometric" (of equal measure) and "isonomy" (equality of laws).

ISO is made up of its members which are divided into three categories: a member body of ISO is the national body "most representative of standardization in its country". Bureau of Indian Standards represents India in ISO.

The technical work of ISO is highly decentralized, carried out in a hierarchy of technical committees, subcommittees and working groups. In these committees, qualified representatives of industry, research institutes, government authorities, consumer bodies, and international organizations from all over the world come together as equal partners in the resolution of global standardization problems.

4.1.1 ISO in Documentation and Information Field

The ISO Technical committee (TC) which is meant for library and information field is "Technical Committee 46 (ISO TC/46). The scope of this Technical committee includes the standardization of practices relating to libraries, documentation and information centers, indexing, and abstracting services, archives, information science and publishing.

4.1.1.1 Technical Committee 46 (ISO TC/46)

There are 7 subcommittees under TC46 for various areas, such as

- TC 46 / SC 2 Conversion of written languages
- TC 46 / SC 3 Terminology of information and documentation
- TC 46 / SC 4 Computer applications in information and documentation
- TC 46 / SC 8 Statistics and performance evaluation
- TC 46 / SC 9 Presentation, identification and description of documents

- TC 46 / SC 10 Physical keeping of documents
- TC 46 / SC 11 Archives/records management

4.2 Bureau of Indian Standards (BIS).

The Bureau of Indian Standards (National Standards Body of India) was originally established in 1948 under the name Indian Standard Institute (ISI). The Standardization work of BIS is carried out by 15 divisional councils. BIS is engaged in formulation of Indian Standard for the following sectors

1. Chemicals
2. Civil Engineering
3. Electronics & Telecommunications
4. Electrotechnical
5. Food and Agriculture
6. Heavy Mechanical Engineering
7. Light Mechanical Engineering
8. Management and Systems
9. Medical Equipment and Hospital Planning
10. Metallurgical Engineering
11. Petroleum Coal and Related Products
12. Production Engineering
13. Transport Engineering
14. River Valley Projects
15. Textile

The standards formulated by BIS fall in the following categories:

- Product Specifications
- Methods of Test
- Codes of Practices, Guidelines, etc
- Terminologies, Glossaries, etc
- Basic Standards

4.2.1 BIS in Documentation and Information Field

In this point it is to be noted that the first committee appointed by Indian standards institute was Documentation sectional committee under the chairmanship of Dr. SR Ranganathan. Ranganathan in his report suggested the need for a training institute for handling information, thereby INSDOC came in to existence. Dr SR Ranganathan and DRTC have done a lot of works for the preparation of standards.

Coblans defined Ranganathan as one of the “great apostles of standardisation”. There were members representing DRTC in the documentation sectional committee. Even now DRTC is giving expert advice for the preparation of standards.

The documentation and information sectional committee, MSD 05 is one of the eight sectional committees under Management and System Division Council (MSDC). The scope of MSDC is the standardisation in the field of: Basic standards of relevance to all division council, including quality system, SQC, management and productivity, documentation and information systems and graphic technology.

4.2.1.1 The scope of MSD 05

- Formulating Indian standards on abstracting, indexing, bibliographic reference, cataloguing and classification automated information handling

system, translation, book numbering and any other aspects of processing and handling of documents.

- Coordination work with
 1. ISO/TC46 Information and Documentation.
 2. ISO/TC154 Documents and data elements in administration, commerce, industry, tourism, and leisure.
 3. ISO/TC171 Micro graphic and optical memories for document and image recording, storage and use.

Up to 1997 BIS has published 35 standards in the field of Documentation and Information including codes of practice for document reproduction and storage, vocabularies, library statistics, bibliographic databases, standard numbering, presentation of information etc. See Appendix A for documentation standards published by BIS. Now we can see the BIS started adopting some of the ISO standards. The new standards under the consideration of Documentation and Information Sectional Committee includes standards for:

1. Entries in a directory of periodicals, which lays down guidelines for making entries in a directory of periodicals. As various forms of making entries in a directory of periodicals are in use. By bringing out standard efforts has been made to harmonize making entries in a directory of periodicals.
2. Standard for 'Automatic text retrieval' gives guidance on automatic retrieval of text. Most of the recorded data are in textual form and, text databases are relatively unrelated. Main parameters of text database are speed of search, precision and recall. In this respect guidelines will be highly useful.

3. Standard for 'Numbering of technical reports' lays down guidelines for numbering of technical reports. Technical reports are brought out by various technical institutions and agencies. At present there is no uniformity in the numbering of technical reports. This standard will enhance their traceability, accessibility and utility.
4. Standard for 'Layout of an entry in a union catalogue of periodical publication' specifies the essential items of information to be covered in layout of an entry in union catalogue of periodical publication and recommends a helpful sequence in which they should be given.

Other standards under the preparation are

1. Standard on transliteration for the Indian scripts in to the Roman Script
2. Electronic Messaging (E-mail)
3. Search and Retrieval (S&R)
4. Electronic Data Interchange (EDI)
5. Electronic Document Delivery
6. Standard for College and University libraries
7. Standard for Inter-Library Loan
8. Standard for public library

4.3 National Information Standards Organization (NISO)

The National Information Standards Organization (NISO) is a nonprofit association, accredited by the American National Standards Institute (ANSI), to identify, develop, maintain, and publish voluntary, consensus-based technical standards for managing information in a changing environment.

NISO act as the expert serves technical advisory group to ANSI on International standards concerning information science, documentation, and libraries. NISO is designated by ANSI to represent U.S. interests in International Organization for Standardization), Technical Committee 46 on Information and Documentation.

NISO has been concerned with the formulation and implementation of standards that addresses the needs of libraries and archives, information services, publishing and book trade in a series of areas, including information transfer, forms and records, identification systems, publication formats, transliteration, preservation of materials and library equipment and supplies.

NISO standards produced includes specifications for bibliographic information interchange, the construction and formatting of index, inter library loan data elements, international standard numbering of both books and serials. Each NISO standards are reviewed after each five years. Best sellers among the NISO standards include:

- Z39.50-1995 Information Retrieval (Z39.50): Application Service Definition and Protocol Specification
- Z39.18-1995 Scientific and Technical Reports--Elements, Organization and Design
- Z39.14-1997 Guidelines for Abstracts
- Z39.48.1992(R1997) Permanence of Paper for Publications and Documents

5. INFORMATION TECHNOLOGY STANDARDS FOR LIBRARIES

Now, the importance of technical standards are more than ever, as libraries and other information service depend increasingly on the operational benefits of standardised technologies. Although the ISO is engaged in development of standard in many different areas, most of the ISO standards that are applicable to libraries and related information services are standards addressing specific issues in computing and networking. Important

examples of the types of standards that the ISO has developed in the area of information and technology includes:

1. ISO 646 : 7 bit coded information interchange
2. ISO 2382: Information Technology Vocabulary
3. ISO 649 : ASCII Control codes
4. ISO 7498: Information processing systems- open system interconnection- basic reference model
5. ISO 8632 Computer graphics metafile
6. ISO 8879: SGML, a format for storing documents together with their logical structure and layout information in a standardised scheme
7. ISO 9541: Font and character information interchange
8. ISO 9636: Graphical device interface
9. ISO 10744: HyTime - hypertext multimedia extension to SGML.

Of the ISO standards that have recently directly affected librarianship, the most important may be *ISO 9660: CD-ROM Volume and File structure*, which defines standardised volume and file structure for CD-ROM.

5.1 Importance of Technical Standards for Librarianship.

Some of the Technical standards adopted have been of critical importance to libraries. Perhaps the best example is the standards for the bibliographic information exchange, which is the standard for the criteria and interchange of bibliographic records in an electronic format.

As libraries inherit technology that were developed for other attractive market, newly emerging standards in the field of computer and networking are also have highly importance to library and information field. The main advantage of this situation is the low cost of the hardware, and disadvantage is that the needs of libraries as organization are rarely taken in to account in the design of these technologies.

The relationship between information technology standards and the librarianship has grown considerably in recent years. Due to the rapid increase in the cost and increasingly inelastic budgets, librarians have lately look to computer and networks of computer as part of the solution, in the hope that the electronic forms of collaboration will restore an economic equilibrium often absent over the last quarter century or so. In the process, librarians have become necessarily concerned with problems that attend connecting computers, terminals, and other devices arrayed across networks. This concerned the extends to the problem of establishing standards that will enable the libraries using different processors and different operating systems to connect their computers and shares computers in meaningful ways. In this concern Z 39.50 : Information Retrieval Service Definition and protocol specification for library application is of great significance to information field. Z39.50 standards originally proposed in 1984 to provide a standard way of interrogating bibliographic databases. Z39.50 is an international standard for communication between computer systems primarily library and information related systems. Z39.50 is becoming increasingly important to the future development of inter librarysystems. By adding an optional Z39.50 interface to search engines, much of the frustration and time wasting could be avoided. The much discussed topic of filtering unwanted areas of Web content could be attacked through an extended service.

Other standards which played important role in the continuing development of library services include *Z39.58 Common command language for online interactive Information retrieval*. It is a set of 19 commands that is indented to provide means of interactive information retrieval systems, with standard basis for searching. The standard has already influenced the design of the interface for at least a few online public assess catalogue systems, is the basis for the command language supporting OCLC's EPIC and First Search services, and may yet affect the command language of database services such as of DIALOG and LEXIS/NEXIS. *Z39.49 Computerized book ordering* and *Z39.63 Inter Library loan data elements*, are other prominent Information technology standards.

6. CONCLUSION

We already noticed that the standards provide quality and increase the efficiency of the library services. The works of the national and international standards bodies are highly important in the development of standards. But the formal standardisation is a slow process. Observers reported that formal adoption of a proposed standard generally takes 4 to 5 years and may take considerably longer time, if there is any controversy. In recent years the time for development of ISO standard has been 6 to 7 years.

In the case of the BIS, we may say some of the documentation standards are not in a condition to meet the changed condition and it has to be modified or revised accordingly. We can see that the number of standards developed by BIS are very less in the information field than that of ISO. In India we are having the standard for bibliographic information interchange, but there is no documentary evidence that it has been implemented in a proper way. Also it is doubtful about the relevance of many standards in the context of Information Technology applications. It has been noticed that most of the librarians are familiar with the MARC records and its use in the information interchange. But very few of the librarians are familiar with other information standards. So there is an urgent need for making the librarians and the developers of information, aware of the availability of standards.

7. REFERENCES

1. AVRAM (Henriette D), MACCALLUM (Sathy H) and PRICE (Mary S) (1982) Organizations contributing to development of Library Standards (*Library Trends*. 31 (2); p197-224.
2. Bureau of Indian Standards (1997) Classified list of Indian Standards: Management and Systems (MSD); p.1-2.

3. INTERNET SOURCES

- I. <http://www.del.vsnl.net.in/bis.org/>
 - II. <http://www.iso.ch/>
 - III. <http://www.bsi.org.uk/bsi>
 - IV. <http://www.niso.org/resource.html>
4. “Library Standards” In *Encyclopedia of Library and Information Science*, edited by Allen Kent, et al., vol. 16 p. 43-62.
 5. “Standards and Specifications” In *Encyclopedia of Library and Information Science*, edited by Allen Kent, et al., vol. 30 p.176-190.
 6. “Standards for libraries” In *Encyclopedia of Library and Information Science*, edited by Allen Kent, et al., vol.28 p.470-499.

Appendix-A***Documentation standards published by Bureau of Indian Standards***

Serial No.	IS Number	Title
1	IS 3130:1985	Code of practice for handling and storage of micro transparencies (microfilms and microfiche)
2	IS 3083:1985	Code of practice for the processing of micro transparencies (microfilms and microfiche)
3	IS 13536:1992 / ISO 2146:1988	Documentation – Directories of libraries, archives, information and documentation centers and other databases
4	IS 13550(part1):1993	Documentation and information – Vocabulary: Part1 basic concepts
5	IS 13550(part2):1993	Documentation and information – Vocabulary: Part 2 Traditional documents
6	IS 13550(part3):1993	Documentation and information – Vocabulary: Part 3 Iconic Documents
7	IS 13550(part 5):1994	Documentation and information – Vocabulary: Part 5 Acquisition, identification, and analysis of documents and data
8	IS 13550(part 6):1994	Documentation and information – Vocabulary: Part 6 Documentary languages
9	IS 13550(part 11) :1992/ISO 5127 (part11):1987	Documentation and information – Vocabulary: Part 11 Audio-visual Documents
10	IS 12940:1990	Documentation – Library statistics – Guide
11	IS 18:1988 / ISO : 4 1984	Documentation- Rules for the abbreviation of title words and Title of publications(2 nd Revision)
12	IS 796:1966 (Reaffirmed 1992)	Glossary of cataloguing terms (1 st Revision)
13	IS 2550:1963	Glossary of classification terms
14	IS 11370:1985	Guide for data elements and record format for computer based bibliographical databases for bibliographic description of different kinds of documents
15	IS 6299:1971	Guide for handling; testing and storage of monochrome photographic prints
16	IS 10101:1982 (Reaffirmed 1992)	Guide for International Standard Serial Numbering (ISSN)

17	IS 795:1976 (1 st Rev.)	Guide for preparation of abstracts
18	IS 9400:1980 (Reaffirmed 1992)	Guide for the preparation of bibliographic description sheet for Technical Reports
19	IS 4731:1968 (Reaffirmed-1992)	Guide for preparation of manuscript of an article in a learned periodical
20	IS 8310:1977	Guide for standard book numbering (SBN).
21	IS 9450:1980	Guidelines for placement of images in roll microfilm
22	IS10455:1983	Guideline for presentation of abstract sheets in serial publications
23	IS 10454:1983 (Reaffirmed 1992)	Guidelines for presentation of translations
24	IS 7900:1976	Methods for writing calendar dates in all numeric forms
25	IS 12879 (part 1) : 1990 / ISO 3272(Part1):1983	Microfilming of technical drawings and other drawing office documents: Part 1. Operating procedures
26	IS 12879 (part 2) : 1990/ISO 3272 (Part 2):1978	Microfilming of technical drawings and other drawing office documents: Part 2. Quality criteria and control
27	IS 12879 (part 3) : 1990/ISO 3272 (part 3):1975	Microfilming of technical drawings and other drawing office documents: Part 3. Unitized 35 mm microfilm carrier.
28	IS 382:1952 (Reaffirmed 1992)	Practice for Alphabetical arrangement
29	IS 1358:1967	Practice for lay out of library catalogue code (1st Revision.)
30	IS 2381:1978	Recommendations for bibliographical references: Essential and supplementary elements(1st Revision)
31	IS 6666:1972 (reaffirmed 1992)	Recommendation for frequency notation for periodical publications
32	IS 1275:1976	Rules for making alphabetical indexes (1st Revision.)
33	IS 10200:1982	Specification for A6 size microfiche
34	IS 10456:1983	Specification for density of silver – gelatin type microforms
35	IS 7150:1974 (Reaffirmed 1992)	Specification for library catalogue and abstract card

Appendix B***List of ISO standards in the field of information and documentation covered by ISO Technical Committee (TC) 46***

Serial No.	ISO Number	Title
1	ISO 4:1997	Information and documentation – Rules for the abbreviation of title words and titles of publications
2	ISO 8:1977	Documentation - Presentation of periodicals
3	ISO 9:1995	Information and documentation – Transliteration of Cyrillic Characters into Latin characters Slavic and non Slavic languages
4	ISO 18:1981	Documentation - Contents list of periodicals
5	ISO 214:1976	Documentation - Abstracts for publications and documentation
6	ISO 215:1986	Documentation - Presentation of contributions to periodicals and other serials
7	ISO 233:1984	Documentation - Transliteration of Arabic characters into Latin characters
8	ISO 233-2:1993	Information and documentation – Transliteration of Arabic characters into Latin characters – Part 2: Arabic language – Simplified transliteration
9	ISO/FDIS 233-3	Information and documentation – Transliteration of Arabic characters into Latin characters – Part 3: Persian language – Simplified transliteration
10	ISO 259:1984	Documentation - Transliteration of Hebrew characters into Latin characters
11	ISO 259-2:1994	Information and documentation – Transliteration of Hebrew characters into Latin characters - Part 2: Simplified transliteration
12	ISO/DIS 259-3	Information and documentation – Transliteration of Hebrew characters into Latin characters - Part 3: Phonemic conversion
13	ISO/DIS 639-2	Codes for the representation of names of languages - Part 2: Alpha-3 code
14	ISO 690:1987	Documentation - Bibliographic references - Content, form and structure
15	ISO 690-2:1997	Information and documentation – Bibliographic references - Part 2: Electronic documents or parts thereof
16	ISO 832:1994	Information and documentation – Bibliographic description and

		references - Rules for the abbreviation of bibliographic terms
17	ISO 843:1997	Information and documentation - Conversion of Greek characters into Latin characters
18	ISO 999:1996	Information and documentation – Guidelines for the content, organization and presentation of indexes
19	ISO 1086:1991	Information and documentation - Title leaves of books
20	ISO 2108:1992	Information and documentation – International standard book numbering (ISBN)
21	ISO 2145:1978	Documentation - Numbering of divisions and subdivisions in written documents
22	ISO 2146:1988	Documentation - Directories of libraries, archives, information and documentation centres, and their data bases
23	ISO 2384:1977	Documentation - Presentation of translations
24	ISO 2709:1996	Information and documentation – Format for Information Exchange
25	ISO 2788:1986	Documentation - Guidelines for the establishment and development of monolingual thesauri
26	ISO 2789:1991	Information and documentation - International library statistics
27	ISO 3166-1:1997	Codes for the representation of names of countries and their subdivisions - Part 1: Country codes
28	ISO/DIS 3166-2	Codes for the representation of names of countries and their subdivisions - Part 2: Country subdivision code
29	ISO/DIS 3166-3	Codes for the representation of names of countries and their subdivisions - Part 3: Code for formerly used names of countries
30	ISO 3297:199x	Information and documentation - International standard serial number (ISSN)
31	ISO 3602:1989	Documentation - Romanization of Japanese (kana script)
32	ISO 3901:1986	Documentation - International Standard Recording Code (ISRC)
33	ISO 5122:1979	Documentation - Abstract sheets in serial publications
34	ISO 5123:1984	Documentation - Headers for microfiche of monographs and serials
35	ISO 5127-1:1983	Documentation and information - Vocabulary Part 1: Basic concepts
36	ISO/DIS 5127-1	Information and documentation - Vocabulary - Part 1: Basic and framework terms (Revision of ISO 5127-1:1983) (Will be incorporated with other parts into one single document)
37	ISO 5127-2:1983	Documentation and information – Vocabulary Part 2: Traditional documents
38	ISO/DIS 5127-2	Information and documentation – Vocabulary Part 2: Documents, data carriers and their parts
39	ISO 5127-3:1988	Documentation and information - Vocabulary Part 3: Iconic documents
40	ISO 5127-3A:1981	Information and documentation – Vocabulary Section 3a): Acquisition, identification, and analysis of documents and data

41	ISO/DIS 5127-5	Information and documentation - Vocabulary Part 5: Collection development and acquisition
42	ISO 5127-6:1983	Documentation and information – Vocabulary Part 6: Documentary languages
43	ISO/DIS 5127-7	Information and documentation – Vocabulary Part 7: Analysis, storage, search and retrieval of information
44	ISO/DIS 5127-9	Information and documentation - Vocabulary Part 9: Institutions and their holdings
45	ISO/DIS 5127 – 10	Information and documentation – Vocabulary Part 10: Legal aspects of information and documentation
46	ISO 5127-11:1987	Documentation and information – Vocabulary Part 11: Audio-visual documents
47	ISO/DIS 5127-12	Documentation and information – Vocabulary Part 12: Legal aspects of information and documentation - Data protection
48	ISO/DIS 5127-14	Information and documentation - Vocabulary - Part 14: Preservation of documents (Ex-ISO/CD 5127-3.2) (Will be incorporated with other parts into one single document)
49	ISO 5426:1983	Extension of the Latin alphabet coded character set for Bibliographic information interchange
50	ISO 5426-2:1996	Information and documentation - Extension of the Latin alphabet coded character set for bibliographic information interchange - Part 2: Latin characters used in minor European languages and obsolete typography
51	ISO 5427:1984	Extension of the Cyrillic alphabet coded character set for bibliographic information interchange
52	ISO 5428:1984	Greek alphabet coded character set for bibliographic information interchange
53	ISO 5963:1985	Documentation - Methods for examining documents, determining their subjects, and selecting indexing terms
54	ISO 5964:1985	Documentation - Guidelines for the establishment and development of multilingual thesauri
55	ISO 5966:1982	Documentation - Presentation of scientific and technical reports
56	ISO 6357:1985	Documentation - Spine titles on books and other publications
57	ISO 6438:1983	Documentation - African coded character set for bibliographic Information interchange
58	ISO 6630:1986	Documentation - Bibliographic control characters
59	ISO 6861:1996	Information and documentation - Glagolitic alphabet coded character set for bibliographic information interchange
60	ISO 6862:1996	Information and Documentation – Mathematical coded Character set for information interchange
61	ISO 7098:1991	Information and documentation - Romanization of Chinese
62	ISO 7144:1986	Documentation - Presentation of theses and similar documents
63	ISO 7154:1983	Documentation - Bibliographic filing principles
64	ISO 7220:1996	Information and documentation - Presentation of catalogues of standards

65	ISO 7275:1985	Documentation - Presentation of title information of series
66	ISO/TR 8393:1985	Documentation - ISO bibliographic filing rules (International Standard Bibliographic Filing Rules) - Exemplification of Bibliographic filing principles in a model set of rules
67	ISO 8459-1:1988	Documentation - Bibliographic data element directory - Part 1: Interloan applications
68	ISO 8459-2:1992	Information and documentation - Bibliographic data element directory Part 2: Acquisitions applications
69	ISO 8459-3:1994	Information and documentation - Bibliographic data element directory Part 3: Information retrieval applications
70	ISO 8459-4:1998	Information and documentation - Bibliographic data element directory Part 4: Circulation applications
71	ISO 8601:1988	Data elements and interchange formats - Information interchange -Representation of dates and times
72	ISO 8777:1993	Information and documentation-Commands for interactive text searching
73	ISO 8957:1996	Information and documentation - Hebrew alphabet coded character sets for bibliographic information interchange
74	ISO 9230:1991	Information and documentation - Determination of price indexes for books and serials purchased by libraries
75	ISO 9706:1994	Information and documentation - Paper for documents - Requirements for permanence
76	ISO 9707:1991	Information and documentation - Statistics on the production and Distribution of books, newspapers, periodicals and electronic publications
77	ISO 9984:1996	Information and documentation - Transliteration of Georgian characters into Latin characters
78	ISO 9985:1996	Information and documentation - Transliteration of Armenian characters into Latin characters
79	ISO 10160:1997	Information and documentation - Open Systems Interconnection -Interlibrary Loan Application Service Definition
80	ISO 10161-1:1997	Information and documentation - Open Systems Interconnection - Interlibrary Loan Application Protocol Specification Part 1: Protocol specification
81	ISO 10161-2:1997	Information and documentation - Open Systems Interconnection -Interlibrary Loan Application Protocol Specification Part 2: Protocol implementation conformance statement (PICS) proforma
82	ISO 10162:1993	Information and documentation - Open Systems Interconnection - Search and Retrieve Application Service Definition
83	ISO 10163-1:1993	Information and documentation - Open Systems Interconnection - Search and Retrieve Application Protocol Specification Part 1: Protocol specification
84	ISO 10324:1997	Information and documentation - Holdings statements - Summary level

85	ISO 10444:1994	Information and documentation – International standard technical report number (ISRN)
86	ISO 10585:1996	Information and documentation - Armenian alphabet coded character set for bibliographic information interchange
87	ISO 10586:1996	Information and documentation - Georgian alphabet coded character set for bibliographic information interchange
88	ISO 10754:1996	Information and documentation - Extension of the Cyrillic alphabet coded character set for non-Slavic languages for bibliographic information interchange
89	ISO 10957:1993	Information and documentation - International standard music number (ISMN)
90	ISO 11108:1996	Information and documentation – Archival paper - Requirements for permanence and durability
91	ISO 11620:1998	Information and documentation -Library performance indicators
92	ISO/DIS 11798	Information and documentation - Permanence and durability of writing, printing and copying on paper documents – Requirements and testing methods
93	ISO/DIS 11799	Information and documentation-Document storage requirements for archive and library materials
94	ISO 11800:1998	Information and documentation – Requirements for binding materials and methods used in the manufacture of books
95	ISO 11822:1996	Information and documentation - Extension of the Arabic alphabet coded character set for bibliographic information interchange
96	ISO 11940:1998	Information and documentation - Transliteration of Thai
97	ISO/TR 11941:1996	Information and documentation – Transliteration of Korean script into Latin characters
98	ISO/DISP 12065-1	Information and documentation - Open Systems Interconnection (OSI) - International Standardized Profiles ALD1n - Library and documentation - Search and retrieve - Part 1: Specification of ACSE, presentation and session protocols for use by ALD profiles
99	ISO/DISP 12066-1	Information and documentation - Open Systems Interconnection (OSI) - International Standardized Profiles ALD2n - Interlibrary loan – Part 1: Specification of store-and-forward protocols for use by ALD profiles
100	ISO/DISP 12066-2	Information and documentation - (OSI)- International Standardized Profiles ALD2n- Library and documentation- Interlibrary loan- Part 2:Interlibrary loan generic
101	ISO/DISP 12066-3	Information and documentation - Open Systems Interconnection (OSI) - International Standardized Profiles ALD2n - Library and documentation – Interlibrary loan – Part 3: ALD21 Interlibrary loan using ACSE
102	ISO/DISP 12066-4	Information and documentation - Open Systems Interconnection (OSI)-International Standardized Profiles ALD2n - Interlibrary

		loan- Part 4: ALD22 Interlibrary loan using store-and-forward
103	ISO 12083:1994	Information and documentation – Electronic manuscript preparation and markup
104	ISO/DIS 14416	Information and documentation – Requirements for binding of books, periodicals, serials and other paper documents for archive and library use – Methods and materials
105	ISO/DIS15489-1	Information and documentation - Records management - Part 1: General
106	ISO/DIS15489-2	Information and documentation - Records management - Part 2: Responsibilities
107	ISO/DIS15489-3	Information and documentation - Records management - Part 3: Strategies
108	ISO/DIS15489-4	Information and documentation - Records Management - Part 4: Control
109	ISO/DIS15489-5	Information and documentation - Records management - Part 5: Appraisal and disposal
110	ISO/DIS15489-6	Information and documentation - Records management - Part 6: Storage
111	ISO 23950:1998	Information and documentation - Information retrieval (Z39.50) – Application service definition and protocol specification

Appendix-C

Some of the documentation standards published by NISO

Serial No.	Standard Number	Title
1	Z39.2-1994	Information Interchange Format
2	Z39.7-1995	Library Statistics
3	Z39.9-1992	International Standard Serial Numbering
4	Z39.14-1997	Guidelines for Abstracts
5	Z39.18-1995	Scientific and Technical Reports--Elements, Organization, and Design
6	Z39.19-1993	Guidelines for the Construction, Format, and Management of Monolingual Thesauri
7	Z39.22-1989	Proof Corrections
8	Z39.23-1997	Standard Technical Report Number Format and Creation
9	Z39.26-1997	Micropublishing Product Information
10	Z39.32-1996	Information on Microfiche Headers
11	Z39.41-1997	Printed Information on Spines
12	Z39.43-1993	Standard Address Number for the Publishing Industry
13	Z39.44-1986	Serials Holdings Statements
14	Z39.47-1993	Extended Latin Alphabet Coded Character (ANSEL)
15	Z39.48-1992 (R1997)	Permanence of Paper for Publications and Documents in Libraries and Archives
16	Z39.50-1995	Information Retrieval (Z39.50): Application Service Definition and Protocol Specification (Version 3)
17	Z39.53-1994	Codes for the Representation of Languages for Information Interchange
18	Z39.56-1996	Serial Item and Contribution Identifier (SICI)
19	Z39.57-1989 (R1995)	Holding Statements for Non-Serial Items
20	Z39.58-1992	Common Command Language for Online Interactive Information Retrieval
21	Z39.62-1993	Eye-Legible Information on Microfilm Leaders and Trailers and on Containers of Processed Microfilm on Open Reels
22	Z39.63-1989	Interlibrary Loan Data Elements
23	Z39.64-1989 (R1995)	East Asian Character Code for Bibliographic Use
24	Z39.66-1992	Durable Hardcover Binding for Books
25	Z39.67-1993	Computer Software Description
26	Z39.73-1994	Single-Tier Steel Bracket Library Shelving
27	Z39.74-1996	Guides to Accompany Microform Sets
28	Z39.76-1996	Data Elements for Binding Library Materials

29	ANSI/NISO/ ISO 2108	International Standard Book Numbering (ISBN)
30	ANSI/NISO/ISO 3166	Codes for the Representation of Names of Countries
31	ANSI/NISO/ISO 9660	Volume and File Structure of CD-ROM for Information Exchange
32	ANSI/NISO/ISO 12083	Electronic Manuscript Preparation and Markup