

Standards: Challenges for Collection Development and Organisation

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[Describes the role of standards affecting all walks of modern life as a basic foundation to ensure uniformity, reliability and excellence of a product, quality or service in order to achieve overall efficiency and economy of the nation. Collection development policy of standards has been discussed at length providing comprehensive list of secondary sources of standards and points out the role of Information Handling Service (IHS) -A solution for meting all types of standards both governmental and non- governmental standards; organisation, maintenance and control of standards to provide timely access to standards.]

1. Introduction

Quality in what today's competitive society is forced to build for survival irrespective of its area being science and technology, industry, commerce, health and education right from manufacturing of a product, materials or service ranging common item of everyday use to extremely complicated equipments and components used in nuclear reactors. To achieve this, standards play a significant role, laying down minimum requirements for quality control and rationalisation of products to enhance their acceptability at national and international level which would serve as a base and guide to the manufacturer. Standards are basic foundation to many aspects of modern life used everyday - ranging from lawyer, engineer, multinational companies to ordinary man and Library is not an exception to it.

Development of Colon Classification, Classified Catalogue code, staff formula by Dr. S.R. Ranganathan and International Standard Bibliographic Description, Common Communication Format (CCF), MARC Format, AACR-2 and international information systems like International Nuclear Information

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Standards : Challenges for collection development, organisation

System (INIS), International Information System in Agricultural Science and Technology (AGRIS) are the results of standardisation in order to achieve uniformity and consistency for organising, retrieving and exchange of information among the libraries. The reason as to why Information and Library Network (INFLIBNET) is issuing instructions to all the university libraries to adopt CDS/ISIS and ILMS software or other dedicated library package but subject its compatibility with CCF format in order to facilitate exchange of data through networking of libraries. This is again nothing but a result of standardisation to achieve consistency, uniformity and exchangeability of information among libraries / Information centers.

Standards are documents that stipulate or recommend

1. Minimum level of performance and quality of goods and services

2. Optimal conditions and procedures for operations in science, industry and commerce including production, evaluation and distribution and utilisation of materials, products and services. American National Standards Institute (ANSI) defines as "A standard is a specification accepted by recognised authority as the most practical and appropriate current solution of a recurring problem."¹

2. Standards : A Basic Foundation

Standards ensure that yesterdays mistakes will not be repeated and job hopefully shall be executed in a better way. Jawharlal Nehru rightly said – "Without Standards, we cannot progress in Industry. If we wish to create confidence about our Industries and sale of our goods, they should be of higher standards. It has become quite essential for the purpose we are working today for planning exports, that we should fix standards, adhere to them and in fact raise them continually". Library has a greater role to play acting as a interface between manufacturer and customers by collecting, organising, maintaining and disseminating required standards information at the right time to the users. The benefits derived out of it are :

A. To Manufacturer :

"1. Acts as a baseline providing guide design, manufacture, quality assurance and procurement of item.

2. Improves quality of product & enhances their acceptability in international market.

3. Improves corporate image.

4. More committed to customer service oriented products.

5. Helps to absorb latest technologies to upgrade ourself to gain edge over competitors.

6. Reduces product cost and provides fair price to customer.

7. Product made first time does not incur scrap, rework, repairs, complaints, returns and allowance.

8. Achieve rationalisation in the production and easy replacement of components.

9. Use of recognised mark on the item.

B. To Customer :

1. Ensures reliability over the products.

2. Improves standard of Living

3. Fair price for quality product is assured.^{2"}

3. Categories of standards :

Standards are issued by different organisations both domestic and foreign countries and are of different types viz. Indian Standards (IS), Joint Service Specifications (JSS), International Electro-chemical commissions (IEC), International Organisation for Standards (ISO), British Standards (BS), American Society for Testing and Materials (ASTM), Japan Industrial standards (JIS) etc.

Houghton³ categorised standards on the basis of its purpose are as under.

1. Dimensional standards : Specify standard dimensions to achieve interchangeability in assembly of components in manufacturing industries and facilitate replacement of damaged parts.

Ex JSS 50400 – Resistors; IEC 348 – 1 – Capacitors.

2. Performance standards : Specify the minimum performance of quality of product or component at acceptable level of efficiency and safety.

Ex : IS 9815 – Ac stabilizer : IEC 285-2-Battery.

3. Material standards : Specify the composition, quality, chemical or mechanical properties of materials such as alloys, fuels etc.

Ex : ANSI/ASTM D 1655-77 - Aviation of Turbine fuels.

4. Standards of test methods : Specify conditions, procedures and tools for testing, evaluating and comparing the quality and performance of materials and products.

Ex : ANSI B 38-1-1970 Methods for testing of household refrigerator.

4. Collection Development :

Essentially standards are an integral and critically important part of engineering process and quality control at acceptable level of performance, testing and materials required for project. Developing collection of standards is of utmost importance as majority of library professionals does not receive any formal training in standards research and information management. On the other hand in many instances, users (Engineers) themselves does not know which standards they require, who publishes it etc. relying more on Librarians puts him further exacerbated. This calls for special skill in library and information officers for developing collection of standards and is largely based on needs and activities of community of users.

At the time of collection of standards, major problems a librarian come across are –

* What standards should be purchased ?

- U.S.A. standards
- Military and government standards
- Individual contry standards
- Draft standards
- Superseded standards
- Corporation standards

* How to identify secondary information sources to access standards:

Appendix

* Which format is to be procured

- Printed
- CD-ROM form
- On-Line
- Microform

* Whom to purchase ?

- Directly
- Agent
- Membership
- Exchange

5. Information Handling Services (IHS) – A solution :

In the above circumstances, IHS comes to its rescue providing comprehensive standards information services in microfilm, online and electronic formats including CD-ROMs. It is unique in that it is the only service that indexes all the standards in the database by unified classification scheme and holds worlds largest collection of unclassified military standards and specifications in the world. (i.e. it covers 90% of worlds output of standards). IHS⁴ offers following collections.

1. Military/Federal standard services : It provides military and federal specifications and standards, military handbooks, drawings, naval instructions / directories etc.

2. U.S. industry standard services : I.H.S is only unique source where one can discover in a single database which standards are approved by ANSI (Dept. of Defense) and includes following societies in full text microfilm database.

- a. American Gas Association (AGA)
- b. American Society for Testing and Materials (ASTM)
- c. Institute of Electrical and Electronics Engineering (IEEE)

- d. Institute for Interconnecting and Packaging Electronic Circuits (IPC).
- e. Underwriters Laboratories (UL)

3. International, non-US national and combined standards services :

International standards are those which have been produced and adopted by a consortium countries whereas national (Non-U.S) standards are those developed within a specific country. Standard bodies covered are BSI, JIS, IEC etc.

Further it provides online searching through DIALOG information services known as 'IHS International standards and specifications' and these are also brought out in CD-ROM and magnetic tape.

6. Organisation of standards :

Standards like any other collection of publications should be classified, catalogued and integrated into the collection. Standards needs to be catalogued according to AACR-2 cataloguing rules providing access points i.e. standard number; subjectwise and issuing body of standards. The problem arises in case if standards are available in different formats like printed; CD-ROM; microform etc. as to

1. Whether standards needs to be kept formatwise separately irrespective of their subject or together and
2. How the user should be informed to facilitate retrieval of standards irrespective of formats.

The most common arrangement of standards is alphabetical order by the name of issuing organisation and within that by standars number. Filing cabinets or shelves or file folders may be used depending upon the collection, its size of standard for filing standards. In case where one format of standard dominates then it is desirable to separate the collection by formatwise. But to facilitate users to locate the standard irresspective of its format, catalogue cards should be prepared giving fully information as to wheather standard is available in printed or CD-ROM or microfilm format. For instance catalogue cards may be distinguished i.e. normal white

catalogue card indicates standards in printed form; red coloured catalogue card indicates CD-ROM form and green catalogue card in microfilm format.

7. Control and Maintenance of Collection

Careful monitoring of standard developing organisations which issues normally bulletins at regular intervals describing progress in developing their standards are required. For instance Wilson company's 'Applied science and technology index' is useful for finding these standards related articles.

The policies on how long standards collection are kept whether all new edition will be needed for which decisions has to be taken with active participation of users and standard information service personnel.

Scientific methods should be adopted to preserve the standard available in different formats for posterity. In places like Mumbai (Bombay) where humidity is more, a relative humidity of 40-45 degrees and ideal air condition should be maintained for proper preservation of standards.

8. Conclusion :

Standards are basic foundation to many aspects of life to ensure accuracy and reliability of results of research to prevent avoidable wastage of resource and manpower in order to enhance safety and reliability of products or service and to have effective quality control and interchangeability of parts and to achieve overall efficiency and economy. Librarians needs to acquire special skills in collecting, maintaining, organising and disseminating standards information service to the users community timely, efficiently and pin-pointedly.

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1. Subramanyam, Krisna. Scientific and technical information sources. New York : Marcell dekker, 1981.p. 131-137.
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- 3 Houghton, Bernard. Technical information sources. 2nd ed. Hamden, conn : Linnet books, shoe string press, 1972.p.67-68.
- 4 Belfrage, Robert M. Standards information services – The IHS solution. Science and technology libraries, Vol. 10(3), 1990. p83-85
- 5 Standardisation. Business and technology sources; Bulletin of the business information and science and technology departments, Cleveland public library. Vol. 39(3), 1968.
- 6 Patricia, LR. Which will it be ? A quality standards information service or a collection of standards ? Science and technology libraries, Vol. 10(3), 1990. p. 5–22.
- 7 Suzanne, M O. Standards in frito-lay corporate library. Science and technology libraries, Vol. 10(3), 1990. p. 49-54.
- 8 Testing for quality of Life / issued by NCTCF = DST / ET-07/1989
- 9 Tayal, A S. Acquisition & updating of standards and specifications in technical Libraries, UNESCO Bulletin of Libraries, 25(1), 1971.

Appendix

Bibliography of Selection tools :

- I. Directory :
 1. Standardisation directory : Philadelphia : US Naval publications and forms centre.
 2. Directory of engineering documentation resources. 3rd ed. Irvine, California : Global engineering. documents.
 3. Directory of international and regional organisations conducting standards related activities. Ed. by M.A. Brietenberg, Washington : USGPO and NTIS.
 4. Standards activities of organisations in U.S. by Robert B.T. for National bureau of standards.
 5. Guide to bio-medical standards. California : Quest publications co.

II. Indexes :

1. Annual books of ASTM standards. Philadelphia : ASTM.
2. Department of defence Index of specifications and standards (DODISS). Washington, D.C. : USGPO.
3. Index and directory of industry standards. Irvine, California : Global engineering documents.
4. Index of federal specifications and commercial item description, Washington, Dc : USGPO.
5. KWIC index of international standards. Geneva, Switzerland : ISO, 1987.
6. Quick reference to IEEE standards. New York : IEEE, 1986.
7. Bureau of Indian standards handbook.

III. Catalogues :

1. American National Standards institute (ANSI) – catalogue of ANSI. New York : ANSI
2. International Electro-chemical Commission (IEC). Catalogue of IEC publications. Geneva, Switzerland : IEC (Annual).
3. ISO catalogue. Geneva, Switzerland :ISO.
4. ASTM standards catalogue. Philadelphia : ASTM.
5. IEEE standards catalogue. Piscataway, N.J : IEEE
6. Underwriters laboratories. Catalogue of standards for safety. Northbrook : UL (Annual).

IV. Periodicals :

1. ISO bulletin.
2. ASTM journal of testing and evaluation.
3. ASTM standardisation news.
4. Advances and techniques : Standards in neurosurgery.
5. Information standards quarterly.
6. IEEE standards bearer.

V. Online Indexes :

1. IHS industry and international standards and specifications by IHS.
2. Standards and specifications by National standards associations available on Dialogue Information service.

