

Standardization of Bibliographic Data: The African Perspective

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Background

Standards, as we know them today in industrial, manufacturing and consumer and commercial industries, are used to check and maintain the quality of products or services. The standardization of bibliographic data, therefore, deals with information handling and is applied to promote the compatibility and co-ordination of procedures and practices. The major concern in this topic is the standardization of bibliographic data as a cataloguing activity which is performed in most libraries and information units. Cataloguing is as old as libraries themselves. The first catalogue is said to have been that of the Alexandrian Library around the period 310-240 BC. Although the objectives of library catalogues, from this period to date, have remained the same, their functions have more or less changed to conform with the dynamic information needs of library users. However, one thing is certain — that catalogues are essential and crucial tools for bibliographic control[1].

Emanating from bibliographic control is the bibliographic management of records, a process which is the responsibility of information professionals who are the custodians of society's records. Bibliographic management has therefore encouraged agencies such as governmental and other professional organizations, those with an interest and concern for bibliographic control, to think of the standardization of bibliographic data as an important aspect of bibliographic control. However, there are problems of bibliographic management which Shera identifies as:

... the task of forming a co-ordinated and integrated pattern of bibliographic services from a patchwork of indiscriminate, unrelated, quite independent, though thoroughly entrenched, enterprises[2].

Thus the standardization of bibliographic data is aimed to be, as the topic suggests, a strategy for the development of library and information services through bibliographic control. At the outset, this discussion outlines the development of bibliographical control programmes up to the end of the 1970s. It then examines the dynamic development of the standardization of bibliographic data. First, it looks at objectives and positive achievements and, secondly, critically examines the shortcomings of standardization *vis-à-vis* its application and impact on the development of libraries and information services in Africa. In conclusion, several management strategies are recommended for action.

Concept of Bibliographic Control

The standardization of bibliographic data is a predominant bibliographic control phenomenon which has interested information scientists during the last two decades. This is clearly manifested by the activities of the International Federation of Library Associations' Universal Bibliographic Control (UBC) programme. For definition purposes:

Bibliographic control is defined to mean the mastery over written and published records which is provided by, and for the purposes of, bibliography. Bibliographical control is synonymous with effective access through bibliographies...[3].

The word "bibliographic" is herewith defined to include all other kinds of library materials and not only those of a monographic nature. The word "control" as in "bibliographic control" is used to describe the procedural and systematic identification of library materials for retrieval purposes. In this connection, the whole concept of bibliographic control, though it primarily deals with bibliographies (which are records of human communication systematically listed for the purpose of awareness), implies the materials to be controlled, which includes all informational materials such as books, pamphlets, journal articles, maps, atlases, musical works, audio-visual materials, theses and academic publications, government publications, directories of journals, and computer-stored information[3, p. 13].

The literature explosion has elicited the formation and effective execution of a bibliographic control programme. Penland states that:

Almost from the beginning of librarianship, access to the accumulation of recorded messages has been available through bibliographic control. Library science has laid the foundation for effective control of, and access to, knowledge. Bibliographic control and access have been facilitated by entry, by subject classification, by holding catalogue lists, and by co-operative acquisitions, indexing, and cataloguing[4].

Today, the bibliographic control of library materials has been achieved by the simple means of cataloguing and classification. The technocrats, i.e. the cataloguers of informational materials, especially in libraries in Africa, have entrenched their efforts in the traditional bibliographic description and arrangement of material almost to the exclusion of several other related activities known today, for example, abstracting, indexing, reference services, etc.

Standards and formats for bibliographic data description, which were designed and recommended by several professional library associations, national libraries and international standardization agencies in developed countries, are being observed to the letter. The bodies which are involved in the design of standards include the Library of Congress, the American Library Association (ALA), the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the International Federation of Library Associations (IFLA), the International Federation for Documentation (IFD), the Universal Bibliographic Control (UBC), the American National Standards Institution (ANSI), the International Standards Organization (ISO), and the British Standards Institution (BSI). The resultant popular standards developed are AACR2, ISBD, ALA and LC filing rules, and MARC.

The UBC, especially in the 1970s, played a crucial role in the expansion of the standardization of bibliographic data through a series of conferences in line with its set objectives. Anderson writes that:

The basic premise for establishing UBC has been set out thus: that the comprehensive record of a publication is made once in the country of its origin in accordance with international standards which are applicable in both manual and mechanised systems; and that record is then available speedily, in a physical form which is also internationally acceptable[5].

Standards and Bibliographic Control

Though it is rather difficult to define exactly what a "standard" is, standards have been used in libraries as a helpful measure in guiding the establishment of new systems because they help in checking the uniformity and order or improvement of the existing systems. Standards vary very much in degree or aim, i.e. there are standards for achieving excellence and standards for achieving adequacy. Standards also vary from country to country with respect to needs and objectives. There are two categories of standards: formal standards set by an authority of some kind, e.g. ISO; and informal (or *de facto*) standards gained through experience (e.g. AACR2).

The purpose of standards in connection with bibliographic control "facilitates comprehension and transfer of bibliographic data between institutions and with other countries"[6]. Standards are very much known, accepted, used and valued by information scientists who use them for various activities[7]. In addition, it is stated that:

Standards promote overall economy of human effort in information handling, the interchangeability of blocks of information, and provide assistance in reducing or even eliminating, economic and technical barriers to information; standards represent the very fabric of interconnection, and useful interconnection is impossible without them... Specialists and decision makers, particularly in developing countries, need to be motivated to use or to introduce standardized methods and techniques and to participate actively in their preparation[8].

Standardization of Bibliographic Data

The need for standardization of bibliographic data was expressed as far back as 1954 during the IFLA General Council Meeting in Zagreb. For the next two decades a series of meetings and conferences took place to discuss the standardization of bibliographic data, and especially of ISBD as a method of bibliographical control. The outstanding conferences which were held and the matters which were discussed are as follows:

- 1961 — Paris — the International Conference on Cataloguing Principles (ICCP), which discussed a statement of principles covering heading and entry words.
- 1969 — Copenhagen — the International Meeting of Cataloguing Experts (IMCE). It was the beginning of ISBD, the basis of the UBC system.
- 1974 — Varna — Symposium on Information Systems. Covered studies on standardization in international information systems.

- 1977 — Paris — the International Congress on National Bibliographies. Made recommendations for the standardization of printed national bibliographies.
- 1978 — Taormina — the International Symposium on Bibliographic Exchange Formats. Began the search for an international exchange format[9].

ISBD

ISBD, a fundamental cataloguing practice, became an important programme. The objectives of ISBD were to: make records from different sources interchangeable; facilitate their interpretation despite language barriers; and facilitate the conversion of such records to machine-readable form[10].

ISBD standards now available in printed texts cover different types of library materials as follows:

- Monographs *ISBD(M)* — First revised edition 1978.
- Serials *ISBD(S)* — First standard edition 1977.
- Non-book materials *ISBD(NEM)* — First edition 1977.
- Cartographic materials *ISBD(CM)* — First edition 1977.
- Printed music *ISBD(PM)* — First published 1980.
- Antiquarian *ISBD(A)* — First published 1980.
- Component parts *ISBN(CP)*.
- General framework for all ISBDs — *ISBD(G)*[9, p. 246].

Bibliographic Data

The ISBD format contains a set of bibliographic record description elements for each part of an item. For instance, the heading would normally contain the authorship or the intellectual responsibility; the description parts contain the physical form, e.g. pagination, of the item; international numbering schemes are the unique identification of the item; and the subject approach which is the subject content of the item[9, p. 380]. Several standards or codes have been devised to cope with each of the above areas (see Table I).

| Area | Standard in use |
|-------------------|-------------------------|
| Heading | AACR2, names of persons |
| Description | All the ISBDs |
| Numbering schemes | ISBN, ISSN, ISBDs, etc. |
| Subject approach | DDC, UDC, etc. |
| Machine readable | UNIMARC |

Table I.

Achievements of the Standardization of Bibliographic Data in Africa

The standardization of bibliographic data has progressed in many libraries and information services in Africa. Many of these organizations, young as they are, have derived their aims and objectives from the existing standards designed and implemented originally by developed countries. Also, it can be said that current information systems in Africa have many similarities with their counterparts in developed countries.

Today, many library services in Africa have been developed based on the standardization of bibliographic data systems abroad, and will continue to grow along this direction well into the 1990s and beyond, unless drastic changes occur. These libraries have little or no choice but to continue using the standard bibliographical tools currently fashionable, such as AACR2 (which incorporates ISBDs, ISBN, and ISSN); DDC; UNIMARC, etc. The nature of current libraries and information services in Africa, which were designed with the standardization of bibliographic data in mind, is not of African design, but is based on some general international consensus, arrived at in the name of sharing of resources to suit international convenience. Information science professionals, on the other hand, have also been trained on the same standard systems. Thus the knowledge gained in advanced training abroad, though advantageous to the development of libraries in Africa, is still only a way of perpetuating the same foreign library systems.

Notable success in using standardization systems has been realized in the growth and development of national bibliographies, which have been influenced by the standardization of bibliographic data. This, therefore, can also be said to be the key strategy for the development of national libraries in Africa. Hence, it has facilitated resource sharing between libraries.

The standardization of bibliographic data has therefore been responsible for the initial conception of libraries and information services in Africa, and has also contributed to their development up to the stage which they have reached at the moment. But are these developments without negative effects on the present and future libraries of Africa? To do justice and answer this question satisfactorily, we need to analyse critically the problems posed by the standardization of bibliographic data in libraries in Africa.

Problems of Standardization of Bibliographic Data
ISBD

Although ISBD has enjoyed success and popularity, it has not made bibliographic control any easier for library and information services in Africa. On its own, without other related aspects to go with it, ISBD is not the best development strategy. ISBD in fact disregards the priority needs of library users who require simplified details only, because most of the libraries and information services in Africa are small in size and therefore experience difficulties with ISBD details. Moreover, ISBD punctuation is confusing to cataloguers. ISBD formats are more useful for national bibliographies than smaller library catalogues. Most

problematic are multilingual materials, which present difficulties in transcribing their bibliographic data into the ISBD format. Similarly, material with non-Roman scripts poses a problem to Arab-speaking African countries. It is likely that some of these countries may wish to establish their own relevant ISBDs just as the Japanese have done with their bibliographic standard description (JSBD)[10, p. 226-30].

AACR2 and Cataloguing Procedures

AACR2 and ISBD are time-consuming library routines which require professional input. To conform to acceptable standards, libraries and information services strive with difficulty to utilize the few professional staff available in these cataloguing procedures, sometimes at the expense of other library services. The product of the spent expertise is the bibliographical catalogue, which end-users rarely consult due to lack of proper library orientation or simply staff apathy and ignorance of the needs of their clientele. Often, lending departments suffer due to this biased professional staff distribution.

So what value is ISBD to the library user? How often and for what purpose do library users make use of ISBD data? Or is ISBD data only of immediate value to the library technocrat? Cataloguers should provide the answers to these questions, but this is only possible if they are also involved directly as information providers in the reader services department. The syndrome of keeping up with the Joneses by observing the standardization of bibliographic data to the letter should be minimized and, instead, hard thinking is necessary for the development of relevant bibliographic control systems for Africa's library users. Relevance and ease of access should be borne in mind when creating catalogues.

General Classification Schemes

The DDC, UDC, and LC general classification schemes which are commonly in use in libraries in Africa have been criticized more than the AACR2 cataloguing code. These classification schemes portray cultural bias in their grouping of library materials or ideas. The classification numbers (letters and numbers) do not assure uniformity of interpretations. Hickey was not wrong in stating that:

Each culture has a way of putting its own history and interests at the centre of the universe, even when the classification schedule is consciously designed as a "universal" one. The hierarchies of topical arrangement translate very uneasily from one tradition to another[11].

F.W. Lancaster also criticizes the standardization of subject access points by saying that standardization of subject headings (e.g. Library of Congress Subject Headings Lists, Sears, thesauri, etc.) is impossible because subject indexing and subject cataloguing are not susceptible to standardization. This is mainly due to: the shifting emphasis on new topics from generation to generation; change in terminologies; and the diversity of users. The wide variation of materials also requires diversity of approach[9, p. 247-8].

Problems of Standardization

Uncritical implementation and a lack of basic theory and understanding of the standards by libraries in Africa have severely weakened Africa's capability of

thinking of formulating standards relevant to its own situation. As a result, a kind of *laissez-faire* attitude has emerged in some of Africa's information science professionals who lack foresight and initiative. They forget that standardization is not innovation, and that they should develop, on their own merit, additional strategies for the development of their libraries and information services, rather than relying solely on international standards. Many professions have standards which fulfil certain objectives, but new ideas or developmental techniques only emerge from original research undertakings, not by strict conformity to existing standards.

The standardization of bibliographic data has made the exchange of information possible, but not access to that information. The UBC programme, which has made it possible for materials to be known through recording, is only part of the problem; gaining physical access is an even more difficult task. Hence, the concept of Universal Availability of Publications (UAP), was born to counteract this problem. Keeping posted with published new editions of standards for bibliographical control is in itself enough of a problem — they are expensive to buy and it is time-consuming chasing them up. To make it even worse, computerization, or lack of it, has widened the co-operation gap between libraries in Africa and those in developed countries. This differential mode of operation is likely to decrease the exchange of information.

New Strategies for Development

The British Library, the Library of Congress, and the other big and successful national and public libraries that we know of today grew from humble beginnings and developed as a result of deliberate and effective planning. A lot of it included elaborate implementation of bibliographic control systems devised by information professionals as the library profession grew from strength to strength. Even so, these libraries were created to meet certain objectives over a certain period of time. It is these libraries which pioneered the way for others to follow, and thus the idea of the standardization of bibliographic data became part of the strategy for development. Those libraries with common social and economic backgrounds were attracted to the idea for the purpose of sharing resources. This influence grew to a great extent, even to include many other international libraries, especially those in developing countries of Africa. Up to the end of the 1980s, achievements have been realized notably in the area of resource sharing. In the last two decades, owing to changing social, economic, and political situations in many African countries, discontent with the disadvantages of standardization has gathered momentum and hence posed a challenge to the established systems. Serious questions are inevitably asked: whose standards, for whom and for whose interests? Unless these questions are satisfactorily answered, the future development of African libraries and information services in the 1990s and beyond will look rather uncertain. Standards of any sort are mere guides to reality, and should not be taken as absolute, which is what Africa seems to have done. To redress this damage, the following strategies should be adopted and implemented forthwith: planning; automation of services; and the understanding of the cultural and philosophical information needs of Africa's library users.

Planning

The fluctuating and sometimes unpredictable social, economic and political changes in African countries need to be counteracted by planning which will involve the choice of appropriate strategies in order to attain Africa's main objectives over a period of time. Odini puts it more clearly by stating that:

The ultimate objective of any long-term plan for the development of library services must be the provision of better services to users. Long-range planning has three characteristics — continuity, review and goal consideration. It involves the identification of priority programmes and services[12].

The advantages of planning include saving time, and being ready for future uncertainty to accommodate sudden social and environmental changes, and also as a control device.

Automation of Services

The automation of libraries is nothing new to information providers in Africa. Whether libraries and information services in Africa want to face the 1990s still in conformity with the established standardization of bibliographic data as a developmental strategy for bibliographical control, or whether they will go it alone by some as yet unknown strategy, the automation of services is an unavoidable choice. The needs for library automation, especially for libraries in Africa, include: increased workload; need for greater efficiency; and introduction of new services, co-operation and centralization[13]. In view of the present fast developments in information technology, the message for libraries and information services in Africa in the 1990s and beyond is clear — automate or perish.

User-oriented Systems Design

It is high time we realized that standardization is like signposting or directional devices which show common objectives and never the means to the end. Appropriate systems need to be developed using these standards as guidelines. This is necessitated by the fact that the cultural, psychological, ecological and philosophical background of the majority of African library users is quite different from that in developed countries. These differences often contradict the standard information retrieval systems organization tools in use today in African libraries. Proposed new system designs should have flexibility of access points and, most significantly, the design of subject access information retrieval systems[14]. There is nothing new in this concept; even the ancient Alexandrian library was arranged by subject. Edward Edwards, the eminent British librarian, believed strongly in the effectiveness of subject catalogues in information retrieval.

In conclusion, the laborious and time-consuming cataloguing activity which is an aspect of the standardization of bibliographic data should be a better, relevant, and more meaningful service to us, not the mere aping of what others are doing elsewhere. If we fail to attain this goal, we should rather then close our cataloguing departments and find some other useful job for our cataloguers to do.

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The Exchange of Publications Programme in East Africa: Problems and Prospects

Exchange of
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Introduction

East Africa comprises the independent states of Kenya, Uganda and Tanzania. These states, until their independence between 1961 and 1963, were colonized by Great Britain. At the time of independence the states inherited a system of education and information which was characteristic of the situation in Britain at the time.

Presently, the information system comprises university, public, special and school libraries. In addition, the region has documentation centres of varying sizes, and national archival repositories. Each state has a number of university institutions. Tanzania, for instance, has two universities: the University of Dar-es-Salaam is the older, and, until 1970 was a constituent college of the former regional institution, the University of East Africa. The present student population stands at 7,000. The library collection is estimated at 130,000 volumes[1]. The Sokoine University of Agriculture serves as the country's second university. Until its establishment as a fully fledged university in the mid-1980s, Sokoine served as the faculty of agriculture of the University of Dar-es-Salaam. Its student population stands at approximately 500. The library is comparatively small and its collection is heavily biased towards agriculture and related subjects.

Uganda, until fairly recently, had only one university, Makerere University, which is the oldest and, until 1971, was the leading centre of higher learning in East and Central Africa. In addition, it was among the few centres of research on the entire continent. However, since January 1971 Makerere's achievements have fallen drastically on account of political instability in Uganda. Makerere has a student population totalling 7,000 with a teaching force of about 400. The library collection in the entire system stands at over 450,000 volumes. Two universities have since been established in Uganda. The Islamic University of Uganda has recently been established in Mbale with programmes in education and related subjects. This institution is being established with funding from the Islamic Development Fund. The third institution is the University of Science and Technology situated in Mbarara in Western Uganda. These two institutions have a student enrolment of under 1,000 each.

Kenya has certainly the largest number of institutions of higher learning in