LISA: anatomy of an abstracting service

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An historical outline of the origins of LISA (Library and Information Science Abstracts) will trace its development from the efforts of voluntary labour for its quarterly predecessor, Library Science Abstracts. Throughout its sixteen years of continuous existence under the present title, the evolving nature of the publication will be related to general trends in secondary service publishing. Features of the publication will be discussed in the light of the characteristics of the literature of librarianship and information science.

Introduction

LISA (Library and Information Science Abstracts) is the leading abstracting service for the literature of librarianship and information science (lis) having commenced publication in January/February 1969 as the successor to Library Science Abstracts (LSA). The Library Association (LA), the professional body representing librarians in the UK, has been the publisher responsible for this serial for more than 35 years, and has an established reputation in the publication of secondary services. Secondary publications provide awareness of and a means of access to journal articles and other material in primary publications by providing bibliographic information and some form of condensation of the full text (e.g. abstracts) together with (or alternatively to) index entries which facilitate searching. Apart from LISA, the LA produces Current Technology Index, a monthly and annual index to the major articles in technical journals, and British Humanities Index, a quarterly subject guide to British journals covering all aspects of the humanities.

Origins

The development of a secondary service in the UK for the subject field of librarianship was pioneered by R.N. and C. Muriel Lock in the late 1940s when they began to circulate typed abstracts of current literature for library students. A wider market for these soon became apparent, and in 1950 the LA took responsibility for the abstracts and commenced publication of Library Science Abstracts, a printed quarterly service under the editorship of the Locks. This continued until 1968, based on a team of librarian abstractors working at home and editors putting it together in their spare time. A fuller account of this period can be found in the Library Association Record.1

Tom Edwards, the first full-time professional editor of LISA, reports that it became increasingly clear during the late 1960s that developments within the profession required a greater degree of bibliographical control.2 In 1966 a report by the Research Sub-committee of the Reference, Special and Information Section of the LA3 concluded that although the standard of abstracting and frequency of publication of LSA were satisfactory, the currency of inclusion, coverage and standard of indexing could be improved. In the same year, Gilchrist4 highlighted the neglect of information science literature. The outcome of these assessments, together with the fact that Aslib was considering the production of an abstracting service for information science, was the decision by the LA in 1968 to launch LISA under full-time editorship and to extend coverage to material covering information science, special library literature and computer applications. Abstracts of such material were provided by Aslib. At the same time, the format was changed to A4 and the title to Library and Information Science Abstracts to indicate its expanded coverage. The aim of the publication, then as now, was to serve the profession by supplying it with the best possible instrument for research, background reading, current awareness and enhancement of knowledge.

LISA today

Since 1981, LISA has been produced under the aegis of Library Association Publishing Ltd (LAPL), a subsidiary company wholly owned by The Library Association and set up in order to continue to fulfil one of the purposes of the Association identified in its original royal charter of 1898: the publication of information of value to the profession. At present, the whole compilation is handled by 8 full-time staff (with a small group of freelance abstractors used for foreign-language material). The agreement with Aslib to provide abstracts in specific areas ended in 1980, and all English-language abstracting is now undertaken internally. The other key professional activities associated with the production of the database are literature scanning and indexing and editing of material, while clerical support is provided for data preparation and primary source recording. LISA is fortunate in being able to draw on the resources of the British Library: Library Association Library for much of its primary literature.

Throughout its 16 years of existence under its present title, the evolving nature of the publication can be attributed to general trends seen in secondary service publishing during this period. Prior to 1979, the object of
the LA's publishing programme was to ensure that no work needed by librarians went unpublished solely because of doubts of its commercial success. Since then, however, economics has assumed a far greater significance in the LA's decision-making. LISA has contributed significantly to the total serials profits accrued and thus to efforts in recent years to improve the financial stability of the publishing operation. At the same time various improvements in the service offered to users have been made possible by maintaining a tight control on costs. For example, there has been a rapid expansion in coverage of primary literature, and an increase in frequency from bi-monthly to monthly publication.

**New technology**

The application of new technology is continuing to have a significant impact on the production of secondary products and the services offered. The decision to computerize production methods used to compile and phototypeset the printed version of LISA was taken in 1975. The major aim of automation was to improve quality and coverage. The original manual production methods designed for issues of 450 abstracts were proving inadequate to cope with issues of 700 abstracts: in addition, developments by competitors also had some bearing on the decision to automate: i.e., the rapid expansion and computerization of *Bulletin Signalétique* (BS) and *Referativnyi Zhurnal Informatika* (RZI) and attempts at automation by *Information Science Abstracts* (ISA).

Fig. 1 shows the development of the service from its first year of operation. Between 1969 and 1974, the number of abstracts per annum increased from 2,600 to just over 3,800, the limit of manual methods of production. Despite some initial problems associated with the computer program and the typesetting operation, resulting in publication delays, by 1980 it had proved possible to expand the coverage of LISA by increasing the annual number of abstracts by 1,000 entries to 4,887. Since then, there has been a rapid expansion culminating in 7,000 abstracts being added to the database in 1984.

More recently, LISA's application of computing technology for data preparation has included the use of word processing input provided by external bureau services and plans to introduce in-house microcomputers for this purpose.

However, the major impact of new technology on LISA has been its evolution from a traditional print-based producer towards a broad-based secondary information service with an expanding role in the information transfer chain. Following computerization in 1976, the LA was able to diversify the nature of products offered and thus provide a number of services tailored to the needs of particular users. This trend can be seen to be in line with other established secondary services at that time.

The master database from which the hard copy format originated was now capable of producing microform and magnetic tape formats. These media have revolutionized secondary publishing with the development of online searching of files such as LISA via commercial vendors. Online searching of the LISA file has increased over the years as with many other databases. In 1979 online royalties amounted to 25% of the total profit, whereas by 1983 this proportion had increased to 37%. No significant migration from the hard copy has been perceived, suggesting either a different market for the online database and/or different usage patterns geared to each format.

A lesser but still significant opportunity made possible by LISA's move into electronic publishing was the availability of tapes direct to end-users for loading onto their own computers. In particular, a number of educational establishments teaching librarianship and information science have found this service of use both for their staff, who can be provided with SD1 services, and for students' research and hands-on training. For example, a subset file of several thousand records on magnetic tape has been used by the Department of Information Studies at Sheffield University as the basis of a student teaching package for experimental methods in information retrieval.

The availability of LISA on compact digital laser disk in late 1986 will provide microcomputer access to the database as if online to a central host. Optical disk publishing will enable direct access without relying on an
intermediary, and consequently is of particular relevance to end-users. Disks, which will contain the whole database, will be available on a fixed annual subscription based on unlimited usage without online connect time charges or telecommunications costs. It is envisaged that this format will be of particular interest to those online users who require a high volume of usage (e.g. library schools) but who are unwilling to enter into the high and open-ended costs involved.

Despite the increasing emphasis on electronic publishing, it should be recognized that outside the UK, USA and Western Europe, the vast majority of LISA users will continue to rely on print as being the only source of information transfer available to them.

Subject coverage

The main characteristic of the subject field of librarianship and information science has been described by Bottle as 'the difficulty in delineating the boundaries of the subject, a difficulty which appears to be greater than in many other inter- and intra-disciplinary subjects'. This unusual feature of the subject field is certainly borne out in LISA's attempts to define and cover primary literature of relevance to information specialists. Tegler highlights the lack of a commonly accepted definition of the scope, purpose, goals and direction of the profession of librarianship and information science which is responsible for the difficulties in subject coverage. Secondary source producers have thus had to set guidelines and determine their own scope—a task which has proved by no means easy. For example, the rapid expansion of information technology over the last five years has inevitably caused LISA to pay more attention to subject areas which were previously considered to be of fringe interest only. This emphasis in the primary literature on topics such as library automation, electronic publishing, videotex and database management systems is certainly reflected in LISA.

Abstracts are classified using a faceted scheme produced by the Classification Research Group in 1971. This divides material into two separate sections: core subjects (classes A/Z) and fringe subjects (classes 1/9)—the latter being disciplines in their own right but of interest to librarians and the information industry. A change in emphasis can be seen in the balance between core and fringe subject matter in recent years. In 1980 fringe material averaged 6% of the total annual output, whereas in 1984 11% of the published abstracts were classified as fringe subjects. This growth mirrors developments in the profession generally and the interdisciplinary nature of many of the topics of current concern.

Terminology and indexing

'Librarianship is a fairly exact study but it has the most inexact terminology.' Whilst appreciating that the terminology of LIS will never achieve the degree of precision found in the hard sciences, this comment by Taylor in 1971 seems even more applicable today with still no sign of a generally accepted language for many concepts in librarianship and information science. As well as ambiguity of terminology, difficulties in the translation of foreign languages may also occur. There has been a recognition that some non-English terms have no acceptable equivalent in English, when it has been necessary to index the term in its original language. An increased reliance on the controlled vocabulary of LISA rather than free text terms thus becomes necessary when searching the database online. Comprehensive subject indexes are provided in each printed issue in order to facilitate searching. Chain indexing allows the user to make highly specific subject searches, thus complementing the arrangement of the abstracts which is designed for broad subject searches and browsing.

Types of source material

The primary objective of the service, unchanged since 1969, is the bibliographical control of journal articles. Currently over 500 journals are being scanned systematically, which represents a doubling in the number of sources since 1973. New titles are frequently added to the source list. In a citation analysis of information science literature, Dansey commented on 'the remarkable number of references to non-periodical literature such as reports and books. This indicates that information science is nearer in character to the social sciences and the humanities than to the natural sciences'. Both he and Edwards highlighted LISA's poor coverage of non-periodical literature in comparison to ISA's wide coverage. In response to this, there have been changes of policy in an attempt to rectify the weakness. LISA increased its coverage of books and conference proceedings during 1974, and in 1980 began to include theses and also abstracts of relevant US government reports via cooperation with the National Technical Information Service (NTIS). A recent survey by Bottle and Efthimiadis showed the effects of this policy change with an increase in coverage of non-periodical literature from 13% in 1973 to 25% in 1983.

International bias

LISA addresses the problem of the language barrier by processing material from many different countries, providing English-language abstracts of source documents which have been published in as many as 34 languages. It thus provides the user with bibliographic information on material from around the world, and adds further to the value of that information originally published in multiple languages by making it easily accessible via an abstract in English. 20-25% of LISA abstracts relate to foreign-language source documents.

The 1983 bibliometric survey by Bottle and Efthimiadis confirms that LISA has the most balanced...
coverage of international journal literature. A comparison with BS, RZI and ISA showed that LISA's source list was found to be drawn from 62 countries whereas BS's was from 27, RZI's from 28 and ISA's from 32.

The trend towards international coverage has always been a strong element in selection of primary material. For example, LISA's inclusion policy specifically covers material from developing countries or the Third World. A study by Buckley in 1982 examined the coverage of librarianship journals produced in developing countries by secondary services of the industrialized world. A comparative analysis of three years' issues (1979–1981) of BS, LISA, Library Literature and RZI was undertaken to ascertain entries relating to primary material from developing countries published in 1979. It was found, not surprisingly, that LISA covered by far the largest number of titles. This bias, wherein approximately 20% of titles from the Third World are abstracted, will continue whilst over 25% of subscribers originate from Third World countries.

Currency

Currency of information continues to be of ever increasing importance for users of most abstracting and indexing services, and LISA users are no exception to this. Balancing the requirement to reduce the timelag between primary and secondary publication at the same time as expanding the coverage of the database and maintaining commercial profitability has proved a difficult task. However, small improvements to currency over recent years have been made:

(i) the change in frequency in January 1982 from bi-monthly to monthly production of the printed service and the consequent monthly distribution of magnetic tapes for the electronic services;
(ii) the introduction of accelerated surface post for mailing the hard copy to overseas subscribers, reducing delivery times from more than eight weeks to two weeks in many cases (a vital feature for a service with over 75% of its subscribers outside the UK);
(iii) the introduction of a schedule of dates in 1985 specifying the timescale for sending the magnetic tapes to the vendors;
(iv) the use of a core list of journals containing titles which receive priority treatment.

Such developments have enabled LISA to improve its current awareness function.

Conclusions

The basic strengths of LISA can be summarized as broad coverage which has expanded to keep pace with the growth in primary literature; an international bias which resolves the language barrier and provides a worldwide overview of professional developments; deep systematic indexing essential to support the comprehensive and retrospective searching needed by many users; and the availability of the database in a number of formats to suit a variety of user requirements.

With a wealth of experience established over many years, LISA is thus set to serve the needs of librarians and information scientists into the next decade and beyond.

References


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