INDEXING OF BILINGUAL DIRECTORIES PUBLISHED BY THE NATIONAL COUNCIL FOR RESEARCH AND DEVELOPMENT (NCRD), ISRAEL

LYDIA VILEN'TCHUK

An attempt is made here to give a short summary of that part of the activities of the Documentation Department of the NCRD which may be of interest to the readers of this Journal, namely the problems we face in compiling and indexing a series of bilingual directories to be published for the first time in Israel, with the aim of publicizing sources of scientific and technological information in that country.

In January 1961 a department for documentation and co-ordination of technical information was established within the framework of the NCRD. The objectives of this department are to collect, organize and disseminate information on subjects in specialized scientific and technological fields; to improve the services of special libraries and documentation centres in Israel; to serve as a clearing house for specialized information; and to attempt, through training and advice, to standardize as far as possible the methods practised in information work. The above would also facilitate the exchange of publications and services and would warrant the fuller and more systematic use of publications, specialized man-power or any other source of scientific and technological information available in the country.

Israel, although small and sadly deficient in public library facilities, possesses a comparatively large number of special libraries and is relatively documentation-minded. These potentialities are, however, not fully exploited because of the variety of working methods practised, partly imported from many different countries and partly developed locally—and also because of a great diversity in the training and background of the man-power engaged in library and documentation work. Last but not least, there is a certain lack of systematic co-operation among the various bodies engaged in documentation and information services, ensuing primarily from the very scanty knowledge they possess about each other, their size, scope, service possibilities—sometimes they are even unaware of each other's existence.

When the new department started to plan its activities it immediately became obvious that before any practical work could be undertaken, the data about the country's scientific and technical potential, whatever its form, should be gathered and made systematically available to the staff of the department itself, and to those members of the public who are in need of specialized items of information. These considerations prompted the department to start with the creation of the "tools of the trade" as a basis for its future activities. The publication of a series of "Sources of information" was planned and immediately embarked upon. To date, it is proposed to publish six directories, with new editions every two or five years, depending on the scope and the rate of change in the fields covered by the particular directory.

The first directory, Libraries in pure and applied science in Israel, appeared at the end of 1961; the second, Professional associations and research institutes in
Israel, in 1962; and the third, Periodicals in pure and applied science and economics published in Israel, has gone to press, and will appear in the Spring of 1963. The other three directories are larger in scope; although in active preparation they will not be ready for publication before 1964 or possibly 1965. They are: Who is who in science in Israel; Union list of serials in Israel libraries in pure and applied sciences; and Scientific research in Israel.

As with any new venture, we have had our fill of difficulties. No information about libraries, institutions, publications or professional men has been previously recorded in any systematic way in this country. The compilation of lists for sending out questionnaires alone took considerable time and effort, and taxed to the utmost the collective memory, ingenuity and personal contacts of our staff. Telephone books, trade directories, municipal and government year-books were consulted; library catalogues were perused; the headquarters of various organizations, research institutes and associations were visited to get a lead on their members and publications; prominent members of the professions personally known to us were approached for advice on publications and information about people in their respective fields, etc. However, as expected, the real difficulties only began after the questionnaires had been sent out. At first many of the recipients did not appreciate the usefulness of the publications planned by us to the country and eventually to themselves. They had to be prompted to send in their replies through individual letters, telephone calls and occasional personal visits. When the replies finally did arrive it became apparent that a very considerable number of them were incomplete, inexact, and required further individual attention.

The directory of special libraries was principally meant for internal use in the country and was therefore published in Hebrew only. It was, however, presumed that the other directories would probably have an appeal to certain circles abroad and should be published bilingually. This assumption proved correct and the directories of associations and research institutes, as well as the periodicals published in Israel, were ordered in appreciable numbers from abroad. But we were wrong in our first assumption, that the directory of libraries would not arouse any interest abroad; the fact that it was published in Hebrew only, proved to be a great handicap. The decision was therefore taken to publish the second edition, which is now in preparation, with a partial English text as well. Our next difficulty lay in the field of indexing the directories, and here they were two-fold. The Hebrew index presented quite different problems from that in English. The art of indexing in Hebrew has a long and illustrious history, but the first material indexed in this language was of a predominantly theological nature, beginning with the concordance of Rabbi Isaac Nathan ben Kolonymus published in 1445, and culminating with the five-volume Thesaurus of the language of the Bible compiled by M. Z. Cadari, which started publication in 1957 and of which two volumes have been published to date. During the many years preceding the creation of the State of Israel the literary output in Hebrew was mainly in the sphere of humanities, mostly literature, biography, philosophy, history and later also in the social sciences. A number of these publications had indexes, and the art of indexing was known to authors and publishers. However, even in these subjects very few professional
indexes were available. The situation worsens appreciably when we have to con-
sider indexing publications dealing with science and technology. The general
output of publications in the latter subject in Hebrew was practically non-existent
before the creation of the State and is still very limited. Although the situation
will probably improve with the years, it is not to be expected that it will drastically
change. The size of the population does not warrant publications in highly special-
ized scientific fields, for which the number of copies sold can perforce be only
negligible. This results in the fact that indexers with experience in indexing scien-
tific technical subjects are to all intents and purposes unavailable. This is still more
ture for indexing any kind of directories. The nearest approach to a directory index in
this country is the telephone book, which from a very poor beginning in 1949 has
considerably improved over the last 14 years, but still lacks consistency and con-
tinuity. Even when we tried to emulate it for the straight alphabetical listing of
names of libraries, organizations, or publications of our directories we found that
it could not be relied upon. The Hebrew language as such does not lend itself
easily to indexing. One of the reasons is a certain fluidity in the generally accepted
rules of spelling. Whereas in classical Hebrew the vowels are omitted completely,
there is a modern school of thought which advocates the partial use of vowels to
avoid any possible ambiguity arising from their complete elimination. The result
is that before embarking on any publication the editor has first to decide on the
mode of spelling he will use. But even after the choice is made, it does not solve
the problem for an editor of directories, as the names of organizations or titles
of publications listed have to be given in the spelling used by the organization or
publication itself. Their decision has not been influenced, however, by any con-
siderations of future inclusion of their names in an alphabetized list, and it happens
very often that the same generic nouns are spelled differently, thus leading to the
placement of identical concepts in different places in the index according to the
spelling chosen. This makes for many cross-references and explanatory notes which
could be dispensed with in an index in any European language.

The next difficulty arises because the Hebrew language is very compact, and
the definite article “the”, as well as many prepositions, e.g. “in”, “at”, “for”, or the denotation of possessive pronouns or the dative case, consist of one letter only,
which is joined directly to the subsequent noun. If taken into consideration during
alphabetization, this will place identical words in different places in the index.
On the other hand, because of the intimate connection of these letters with the
noun, they cannot be disregarded with the same ease as it is possible to do in
similar instances whilst alphabetizing in English, French, German or Russian. One
of the ways to avoid this predicament is to enclose these prefixes in round brackets
and to disregard the brackets during alphabetization.

A further Hebrew grammatical rule constitutes a pitfall even for the experi-
enced indexer. This is the rule of “semikhut”—according to which the first word
in a combination of two nouns changes its ending and/or its inner vowels, whilst
losing its independent meaning and acquiring a new meaning through the com-
bination with a second noun. The following example will illustrate this difficulty
to the English reader:

Bayit=House ; Sefer=Book.
The word "school", if literally translated, is a combination of the two words above and would read "The house of the book"; a combination of the two words "house" and "book", which when combined both lose their independent meaning, and in the process the first changes its vowels "ayi" to "e". The concept "school" now looks as follows: "Bet HaSefer". "Ha" corresponds to the English definite article "the". A similar phenomenon occurs when two nouns are connected by the possessive case:

Workers=Poalim; Library=Sifriya.

Connected by the possessive case:

Workers' Library=Sifriyat HaPoalim.

The first word in the combination has changed its ending. This plays havoc with any logical sequence of concepts in the index, as it disperses them according to the incidental fact of their being composed of two nouns or a noun and an adjective. For the latter combination the rule of "semikhut" does not apply, e.g. in the concept "National library", "national" being an adjective does not change the ending of the preceding word "library". It remains in its original form "Sifriya". National library=Sifriya leumit. There is no circumvention of the dispersion of identical words caused by the rules of "semikhut", and this certainly does not add to the easy use and lucidity of an index.

The problems of indexing in Hebrew, discussed above, are inherent to any text irrespective of its contents. There are, however, several additional problems, which emerge only when indexing scientific or technological publications. One of them has already been mentioned—the absence of a tradition and experienced manpower in these fields. The others arise from the fact that the development in these fields in the country is of a relatively recent date, and has been dynamic ever since. Quite often the development of terminology in scientific and technological fields does not proceed with the same speed as the developments in the fields themselves and therefore remains rather vague for the time being. An aggravating factor is the fact that Israel is a country of immigration which receives, and has to assimilate, scientific and technological man-power from different parts of the world on a par with its own graduates. Each wave of immigration brings in its wake people used to a different terminology who try, consciously or subconsciously, to adapt it to the local usage by Hebraizing foreign words. Until 1925 the main spring of intellectual immigration came from countries with Russian as a mother tongue and many Hebraized Russian words can still be found in the first trades the country started to develop, for instance in the building trades. From 1934 until the last decade, the immigrants from Germany influenced the creation of new technical terms by Hebraizing German words. At present the influence of the English language is predominant. Parallel with this wild growth of technical terms, the Academy of the Hebrew language is working on the creation of a new technical terminology based on the original roots of the very rich and extremely versatile and flexible ancient Hebrew. But as the work of an academic institution of such standing is performed very slow, many interested bodies, e.g. the higher institutes of learning, industry or the army, in the meantime coin their own technical terms, which they need for their day-to-day work. So it can happen that at
one time several different terms for the same concept are in circulation, some of them Hebraized words from foreign languages, some created from original but different roots of Hebrew. Quite a few of them are so good that they are speedily accepted by the general public, even before their official recognition by the Academy. Others are unsatisfactory and only short-lived, but, even when superseded by still others, have sometimes had time to leave their imprint in the names or in the writings of the organizations which coined them. The indexer dealing with scientific and technical material is quite often at a loss which terms to choose, and mostly the only solution is to cross-reference from a Hebraized foreign term, which is generally understood, to the new official term, which has not yet taken root in popular usage. Sometimes it is even advisable to make additional cross-references to one or more "private" terms, which although possibly wrong, and neither generally nor officially accepted, are for a certain time and for a certain type of user the only understandable terms.

The difficulties with the indexing of the English text of our directories are conditioned by the fact that only indexers whose mother-tongue is English are really qualified to do it. When added to this the desirable qualification of a scientific background, it becomes obvious that, in a country where English is not the mother-tongue, it is not easy to find man-power answering these requirements. There is also the additional difficulty, that even a person possessing the above-stated qualifications will not always be suitable, as his mode of working depends very much on the English-speaking country where he obtained his initial training. Then, although the fundamental concepts are certainly the same, and seemingly we have only to make the choice between such basic principles as "word by word" or "letter by letter" indexing, in practice we have found that the whole practical approach to the problems involved varies very much with the country of origin of the indexer.

CORRESPONDENCE

ONE INDEX, OR MORE THAN ONE?

Sir,

Since the appearance of my notes under the above title in the last number of The Indexer I have come across three "authoritative pronouncements" on this subject. I have already quoted H. B. Wheatley's How to make an index, but his other work, What is an index? (1879) contains the following downright assertion: "an index should be one and indivisible, and not broken up in several alphabets".

Commenting on this in her New York State Library indexing: principles, rules and examples (4th edn., 1942), Martha Thorne Wheeler states:

"All these authorities [J. B. Nichols, W. I. Fletcher, etc.] imply that the classified index is exceptional. In ordinary book indexes it is generally conceded to be inconvenient and few will question the dictum of the veteran indexer [H. B. W. as above]. Curious exceptions may be found which serve to emphasize the value of this rule. Hutchins's Dorset, brought out in a new edition in 1874, has eight separate indexes, that is (1) Places;