Changes in the development of information, its representation, retrieval and use as a basis for updating librarian schemes of documents' arrangement and notation / Yalov, Sarit

Abstract

This research will point out the need and the possibility to update the arrangement and notation schemes of documents in public libraries, following developments in information management, its representation, retrieval and use. The assumed contribution of this research will be in enhancing the user-friendliness of the arrangement and notation scheme in public libraries – for the benefit of librarians and patrons alike, and releasing a practical aid from the chains of "philosophical" objectivism concerning the place and importance of fields and sub-fields in the array of human knowledge.

The conventional librarian classification schemes – among which the most popular are the Dewey Decimal Classification (DDC), the Universal Decimal Classification (UDC) and the Library of Congress Classification (LCC) – were developed in the 19th century and the beginning of the 20th century, parallel to the rise of the scientific and technological approach, characterized on the one hand by specification and a high level of details and on the other hand, by the attempt to attain a broad and global perspective. Therefore they have major divisions, sub-divisions and detailed 'deep' division to fields of knowledge, according to a clear hierarchic layout. When a classification scheme is selected by a public library, it serves both the intellectual document retrieval system – i.e. the catalog and the physical document retrieval system – i.e. the shelves. Thus, documents about close subjects according to the classification scheme, are physically juxtaposed – to enable their retrieval by subject.

However, the physical documents on the shelves are only part of the documents in the collection. Among the documents which patrons might find in the catalog and not on the shelves, are especially large or small format documents, which are stored in designated locations for such formats; documents which are read by others; and documents dealing with more than one

subject or with some aspects of one subject (among which each can be physically placed in only one place).

With the increasing tendency of multi-subjective and inter-disciplinarity in the creation of new knowledge, there are more and more documents that can not be placed on the shelves in a way which will present all the facets they deal with and all practical and theoretical bonds between the aspects mentioned in them (for example, a book on the psychological effects of medical treatment within the educational system). That is to say that their arrangement and notation on the shelf according to classification scheme are useless, and that the connection between the fields in which they deal with can be supplied only by the catalog, via sub-entries and references.

Moreover, since knowledge is collected nowadays in various formats – books, journals, e-journals, CD-ROMs, video cassettes etc., which have in most public libraries designated storage locations, readers are more and more dependent upon moving around the library space – even if the printed documents in its collection are arranged in juxtaposition according to their subjects – in order to complete their relevant document compilation in their various formats. In order to physically reach them they have to first browse the catalog.

Thus, the shelf browsing is gradually losing its advantage to catalog browsing. But the critical reason for the abandonment of arrangement and notation schemes based on classification schemes of content, with the abandonment of the possibility to browse the shelf, is the advanced capabilities of the Online Public Access Catalog – the OPAC – especially in six areas: searchable fields, document representing elements which are not searchable fields, establishing connections between documents, searching options, interface friendliness, and integration of ex-catalog information sources.

While in the past the catalog was a manual card system, which supplied few document representing elements among which only few were searchable fields as well (mainly: title and author), today the OPAC suggests many document representing elements among which the majority are searchable fields as well: title, author, subject, classification number, catalog number, descriptor or

identifier, keyword, publisher, publication date, language, format, size, number of pages, ISBN, content, index and sometimes even the document's full text.

Some OPACs contain document representing elements which are not searchable fields but might significantly enrich the information about the physical document, such as: the document abstract, the document preview including evaluation, a picture of its cover and so on.

OPAC also suggests searching options such as Boolean searching; searching by proximity operators; using truncation; limiting the retrieval by criteria of language, publication year or physical format; sorting the searching results by different elements (like the alphabetical order of their titles or authors or by the numerical order of their publication dates or classification numbers).

Instead of the documents' arrangement and notation by classification schemes which are content based, and in which there are divisions and multiple sub-divisions, one might therefore suggest an arrangement and notation scheme based on a division to some dozens of disciplines, as they are customary in the academy and in the post-secondary educational system – a flexible division adapted to the environment in which the library functions, with the option to change it accordingly with changes in the academy and the disciplinary seclusion. In this main division it is most appropriate to establish a simple and trivial notation, having an inner consistency, which will supply to any item a functional "shelf code", e.g. numbering the documents in an ascending order by their absorption chronology into the collection, or signing them by the first letters in the title of each of them. An example of a possible notation of specific documents in the History division: HIS1, HIS2, HIS3.

This notation, which will be written on each document's spine, will mark and indicate it in the OPAC (in every record in which it is mentioned), and this will be the code which will be copied (or printed) by the patron when going to pull out the document from the shelf. An integration of two of the OPAC novel capabilities: sorting the results and printing them, will enable the patron not only to sort and print (or send by Email) the results of the relevant documents by the author names or publication dates, but also to sort them by the ascending order of their functional notation (numbers or letters), approach the shelves with

this reprint and pull out the documents according to their physical arrangement. The physical arrangement of the documents on shelves, in accordance with the functional notation, will be done by the "running" numerical order (or the alphabetical order of their letters), just like the order of records in the telephone directory.

Indeed, according to this arrangement and notation scheme the patron will have to collect documents about related subjects from shelves which are distant from each other, but anyway an advanced OPAC directs the patron to a variety of documents which are scattered around the library, even if it is arranged according to the conventional classification schemes.

The research within the framework of this thesis is therefore designated to examine the possibility of using the advanced capabilities of the OPAC in order to relinquish the documents' juxtaposing on the shelf according to the "theoretical" proximity between their subjects, and the documents' notation in a way which represent this proximity.

Its two hypotheses are that intellectual retrieving of documents by browsing the OPAC will produce more relevant documents – in the various fields of knowledge – than their retrieving by browsing the shelf, and that intellectual retrieving of relevant documents by browsing the OPAC will take a shorter period of time – in the various fields of knowledge – than their intellectual retrieving by browsing the shelf. A third hypothesis is that users of the big libraries (of theoretical collections) already prefer OPAC browsing to shelf browsing, and that this tendency will even increase in the future.

The research done to check this hypotheses is quantitative and qualitative as well: a comparative test of retrieving relevant documents in 20 subjects from various fields of knowledge in the Bar-Ilan university library – by shelf browsing and by OPAC browsing, to analyze the number of documents being retrieved in both ways and the time it took; and an open questionnaire about the shelf and OPAC browsing habits of academics from various fields of learning. The quantitative test was done by 20 examinees – students of Information Studies aged 20-33, and the qualitative questionnaire (of 13 questions) was

answered by ten academics aged 25-35, experienced in both methods of intellectual retrieval.

The findings show that the OPAC browsing averagely produced three times more relevant documents than the shelf browsing and that the OPAC browsing averagely took half of the time consumed by the shelf browsing.

The questionnaire results show that the preference of retrieving documents in libraries by OPAC browsing is increasing while shelf browsing is decreasing.

These findings support the establishment of the conceptual "big leap" from more than a century's usage of classifying arrangement and notation schemes to a usage of functional non-classifying schemes of documents' arrangement and notation. They strengthen the argument that nowadays, in libraries with a conventional OPAC (that is to say, an OPAC with only two advanced capabilities: searchable fields and searching options, but without extraordinary upgrading in the other four areas of capabilities being discussed in this thesis: document representing elements which are not searchable fields, establishing connections between documents, interface friendliness, and integration of ex-catalog information sources) – there is already a preference to browse the OPAC at the expense of browsing the shelf.

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