

## Bibliography

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### *Bibliography – An Imperative of the Informational Society*

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#### **Abstract**

At present the most important factor of the human society, the universal, omnipresent instrument is the information. This is fact. The XXth century civilization based itself more than any previous ones on information, education, culture, science, that is on knowledge. And the fastest access to information is achieved by bibliography.

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The necessity for bibliography is increasing in proportion to the amplification of the number of documents and to the complexity and diversification of the interest in knowledge of man and society.

During the latest century knowledge made great progress and information followed the same pace, the same spreading area to the public.

Effects of the informational phenomenon have been felt in bibliology generally and in bibliography particularly. The informational boom of the first half of the 20th century entailed the development of bibliographies in order to help the researcher in his work of collecting,

selecting and analysing documents. These are consulted by library users to find out the latest publications, to find documentation on a certain topic or to complete documentary references.

Bibliographies identify, find, communicate and reevaluate specific information to some fields of human knowledge. They support the scientific research documentarily and informationally in different spheres of activity and are able to reflect diachronically and synchronically the stage of researches touched in the bibliographed domain.

As experts, students and the public need in all fields and research activity an instrument to facilitate the access to the contents of thousand of published works it is high time the necessary information were offered to them.

At present, the user is confronted with an ever-increasing volume of information, moreover, to an „overcharge” and, many times, this leads to the incapacity of the informational offer to answer, adequately, the respective request. This explains the fact that the user must screen, out of a huge volume of information, the necessary one. We can say that mankind witness a real unfolding informational revolution. This phenomenon is due to the unprecedented increase of the flow of scientific and technical information, following the growth and variety of the sources and means of mass communication.

We could add to all this intense development of the informational techniques, among which, undoubtedly, the computer is the supreme one, due to its extraordinary capacity of efficiently taking over impressive volumes of data and information.

Now, more than ever, imperiously necessary bibliographic instruments to help the user to reach easily what he needs must particularly to a pertinent authoritative ideatic content.

Searching for a certain reference it is a laborious activity, consuming time and implying patience. Thus, such a „support”, the bibliography, is absolutely necessary as it contains, besides the bibliographic reference, an annotation, which facilitates a first intermediate contact with the document.

These secondary documents – bibliographies – analyse the primary documents and are created by professionals of information: librarians, bibliographers, documentarists and libraries.

But, for a pertinent analysis of the primary documents as sources of the bibliography one must fix some characteristics necessary to become information to appeal to.

Therefore, trying to formulate a definition of the document, we could mention the following characteristics: actually it is the assembly made up of a support and a piece of information, generally registered in a permanent form which can be read by man or machine. There are several manners of fixing information according to the support: mechanical (for printed materials), chemical (for photos) electronic (for data bases). The information, usually fixed on a certain item, can be found, localized and reproduced, such characteristics being absolutely necessary to make it useful.

Bibliography presupposes selection, analysis and systematization of information; it plays the function of an intellectual intermediary and that of the dynamics between the book and the reader. Its mission is to inform rapidly and efficiently the beneficiaries' request of information, be it real or potential.

Applying research and elaboration methods can be facilitated by organizing the field of bibliographic activity.

A way of ensuring the scientifically rigorous application of these methods in the case of the bibliographies of specialities is their elaboration by the institutes of profile adequate to the field of the bibliography. A bibliography of this type, made up in a library or in a centre of documentation with a larger scope, shall be worked by specialized bibliographers. Thus, their work has a far greater efficiency and it is more accurate, more mistake-free. It is applied to a system of collaboration. It is applied sometimes to a system of collaboration between bibliographers and a scientific coordinator or a consultant in the respective speciality.

The conditions where the bibliographical practice takes place are influenced by the form of the sources, by the absence of essential bibliographic elements or by their unusual form of presentation. Sources bring about difficulties, from the lack of responsibility of certain publishing houses as to their obligation to mark integrally and correctly the elements of identification of products for printing and until the e-document or the virtual data bases.

In order to help the beneficiary, the electronic technologies application in the works of librarianship has begun by the mid – 70's when the most important event has been the electronic files, a fact that made the transition from the traditional library to the digitized one. Thus we can observe the following: *„although there still are many people ignorant of using bibliographical services, the whole information vehicled worldwide is determined, originally, by the steps taken by some bibliographical investigations in initial stages of development. An indispensable auxiliary*

*for the human individual, for any scientific and professional collectivity but also for the society as a whole, bibliography is indispensable both for the solitary erudites and for the overqualified pilots of the „navigation” on the open ocean of the internet”. (1)*

The functions of the bibliographic activity can undoubtedly be carried out if we permanently consider the fact that it is an „*organism or part of it which has as main goal to preserve a collection and to facilitate, owing to the services offered by the personnel, the use of the documents answering the needs of information, of research, of education or of loisir of the users.*” (2) At the same time it is important to mention that this institution „*ensures services of bibliographical and documentary information at a local, central, national and international level, elaborating bibliographical and documentary works able to highlight the bibliographical and documentary collections of cultural and scientific character*” (3) (in conformity with the order of the Ministry of Culture nr. 452/6 July 1992).

Therefore the library has the function of centre of bibliographic and documentary information exerted by means of two types of services:

- the elaboration, organization and publishing of bibliographical materials;
- the written and oral information of the beneficiary.

There is a variety of bibliographies according to their content, destination or time for publishing. Among them, the most used ones are:

- *the bibliographical indexes*, lists of references of the literature of specialty conceived according to a plan and presented under the form of manuscript. They facilitate the orientation in the literature of specialty and can be achieved by topics or name of authors;
- *the bibliographical catalogues* are actualized in lists of names, of concepts or objects registered on various information carriers. Their order lies on taxinomic schemes and their aim is that of information. They represent the oldest category of secondary documents;
- *documentary syntheses* are things destined to documentation which present the stage of some issues on the basis of publications of specialty;
- *tertiary documents* are based on the secondary document processing and can be found under the form of bibliographies, translations and syntheses.

*Bibliography* can be defined as a branch of the science of the book related to problems of printing, studying, registering, describing and classifying the products of printing and publications in general in order to create instruments of intellectual work.

It is called *bibliography* as well the result of elaborating instruments designed to the intellectual work as the *bibliographic indexes* as well as the *bibliographic lists*, *the bibliographic repertories* etc.

As one can realize the bibliographic term is attributed for two aspects of a systematic activity such as:

- a) organized and methodical research work of the publications and
- b) the result of this research presented under the form of some specialized papers able to guide the readers to the material they need.

The function of the *bibliography* is that of intermediating the access to the documents by presenting the information on the papers stocked on various electronic items (from the traditional up to the most modern ones), complete information is made up in order to identify these papers. It happens sometimes that this new information is much richer than the traditional one in the libraries. These characteristic instruments endows *bibliography* with another function, that of guiding and counselling the reader as there is no limit in presenting – no matter how systematically – the description of the papers signalled and there are provided also many descriptions ready to offer basic information for various fields of knowledge.

To put it differently, the *bibliography* is an auxiliary of the scientific and technical researches, ordered and complete *at all levels*. Its aim is the systematic presentation of everything that has been published in all fields of activity, it highlights whatever is new for each of them and allows knowledge at the actual stage of research, its character and tendencies determined by the achieved progress.

And this aspect is all the more important as, in the vast and diverse world of the books, bibliography is like „*the explorer's compass or the engineer's ruler*, it opens the way to discoveries typical to its activity”. (4)

To conclude, the solicited information in the libraries nowadays requires assistance and bibliographic/documentary help, informational and documentary syntheses and also data bases interrogation etc. These services ensure a better quality to the value of the information as the product must be rapidly handled, controlled, analysed, transferred, certified which implies a network of high competences from the part of the librarians.

Therefore, „in the judgement of the perennial values of the bibliographical approach we must start from the idea that its utility arises from, on the one hand, the necessity of supplying inherent limitations of the human condition, and, on the other hand, the imperative of accelerating the process of rapid finding of information, process which represents, in its turn, the indispensable premise of the development of the society.” (5)

Thus, the old hierarchy of the libraries shall be modified, developing particularly the libraries able to offer the easiest access to information, irrespective of the type of document which contains it, of the place and moment of solicitation, discarding the libraries with complete funds. From this point of view the real novelty, sometimes perceived as amazing for the libraries, is represented by the dissemination of the bibliographical descriptions and their structuring in local systems, able to make them easily accessible at a grand scale.

The dynamics of the economic, social and cultural life represents a barometer for solicitation or absence of solicitation of information. In this case, in Romania, the bibliographic research presents an acute diminishing of activity caused by several factors: the economic – by retreating the resources on which this activity relied or by reducing drastically the users of these sources of information. These elements request, more than ever, a re-analyzation of the exigences of the moments in society. Our country needs a performing education and an adequate communication between the constitutive segments. Professors, researchers, students, librarians can contribute now to the rehabilitation of a new balance with the scientific world. (6)

The information is available in the developed countries particularly, called „informational societies”. „It is the tyrant and the servant of the modern epoch, a commodity endowed with its own market” (7)

This market is a concentrated one, in a swift development (the information being doubled every three years), non-homogeneous (concomitant with the market of information highly specialized co-existing with a market of the „performance information” or „the empty information”, next to the misinformation, largely spread to a great public), a market which benefits of constant technical progress, on the one side, thus the possibility of treating it is continuously increased and, on the other side, of the high speed circulation of the information created incessantly owing to the technical progress which influences, at a certain extent, telecommunications.

As to the information consumer, it has been noticed that an important segment of population better educated than the previous

generations has emerged, more implicated due to the massive education and informed for a relatively long time, able to exploit information.

Aluna Bejan (8) mentioned that some sociological enquiries unfortunately demonstrated a tolerance for the lack of information, particularly in ordinary environments. This fact can be justified by the impossibilities of some of us to guide them selves, to select the necessary sources of information, the ignorance of the offer or the informational techniques. These are the causes, many consumers – readers do not manage to reach the information they wish, the information market displaying an upside image of its real utility.

Difficulties on the path of the reader which can be solved by the bibliography are not at all minor. And it is normal that now, when the number of those who can write is so hard to estimate, the possibility of knowing „who”, „where”, „when”, and „how” has written on a certain subject is almost impossible by a person for whom the sources of bibliographical investigation and method of access are not available.

These sources are in a continuous and effervescent evolution, both from a quantitative and a qualitative point of view, dictated by the informational technologies and by the telecommunication networks, Internet type. At the moment, these documents can be accessed and produced on the internet with an impressive diversity, of a real or doubtful value, without volume limits or unbearable technical or financial constraints.

This very fact presupposes a few imminent risks: the saturation of the informational market which hinders the rapid access to valuable knowledge.

Libraries shall be confronted with the situation of initiating ample programs in order to screen and reevaluate the documentary resources on the internet.

Multimedia document aquisition by the libraries facilitates their creation and production. Thus, long term projects of the libraries should consider not only the necessity of a common development with the internet but also the obvious evolution towards the digitized documentation.

Irrespective of the informational carrier „...*the information is the basis of the progress of the society. More information means more knowledge, more knowledge means more participation and more participation means more power and capacity of prospection*”, as the American sociologist, Daniel Bell, asserted (9).

Ideally, the bibliographer should read all the works registered in the bibliography and everything written about them. But when we speak of

large bibliographies at least, this obligation puts his honesty in difficulty. The electronic machines shall solve this problem in the near future. For now we must admit that the bibliographer's work can be paid off by high level results when, coming to his help, the authors insert, at the end of their works, short but relevant presentations of the content.

Adding summaries written by the authors themselves joins, in fact, the latter's interest in a better information of the readers about their works with the exigence of the bibliographer's work.

The informational richness in all domains of activity implies the necessity of forming and developing a complex informational system.

Here are a few figures to demonstrate the process of the impetuous growth of the printed production in the world.

Dan Simonescu (10) noticed that, during Louis XVI's reign, about 70 books were published annually in France. In 1969, in the same country, about 12,000 books were issued (excluding re-editing). In 1974, in the USA 500,000 volumes were edited.

The publishers of the *Bulletin de documentation bibliographique* from Paris received, at the level of the years 1975-1976, about 3,000 bibliographies of bibliographies. The number is of a high importance for the information and documentation of the readers, each of the 3 thousand bibliographies consisting of hundreds other bibliographical pieces of information.

In France only, until 1940, there had been 800 thousand articles published in the scientific serials. Worldwide, the number of the specialized reviews was of 80 thousand in 1971 containing annually about 3 million articles of various scientific branches. The world book production has expanded so much that, only for the names of the authors and for the titles of their books in the USA and in Great Britain in 1971, a number of 4959 pages were used. This immense bibliographical work has been achieved by the publishing house R. R. Bowker Company, in *Books in Print in 1971*, New York – London 1971, 2 volumes, in folio, vol. 1. the authors, alphabetically ordered, 2733 p.; titles, 2138 p. + 44 f. indices.

The statistic UNESCO annuary, printed in 1973 indicated the number of 7900 of serial publications everyday issued worldwide in 1971 and 561,000 printed books in 1972.

Bibliography and documentation in correlation with new technologies make up the modern informational system. The information centres and the libraries, particularly the specialized ones, are the organisms capable of collecting information, of processing it, of systematizing it and transmitting it.

One of the oldest and well known centres is the Chemical Abstracts Services (CAS), founded in 1907, in the USA. He publishes tens of volumes yearly, that is abstracts of the articles of the specialized serials. Annually, CAS denudes (this is the scientific term) 12 thousand reviews and processes 250 thousand articles from chemistry and biochemistry.

Under the circumstances which condition the society to live through information, another issue confronts it, that of a larger access to information and not an increase of the productivity and efficiency of managing it. Thus, libraries – main institutions in charge with supplying information – should adapt their existence to these new demands. They can ensure the access to information, and we do not refer to the library-repository type but to the new type of library, producer of goods and services, where librarians have become „agents of a remote controlled information”, according to some, or „the information broker”, according to some others.

*„They should be considered partners in an economic space, as they sell information, acting as suppliers.” (11)*

It is said that information shall soon stop circulating freely; it derives from original thinking, includes higher and higher costs, so that this philosophy of gratuity shall cease and that shall affect quality first, then its spreading, then even the creation of information.

The American bibliographer, Samuel Shannon (12) opinionated that it is vital for the bibliography to cover a number of works in a specific domain as large as possible in terms of feedback of the quality relationship between information and user. Shannon sees bibliography as an instrument of the objective research of the possibilities of investigation, influencing, if it is specific, „the intellectual productivity of knowledge”. Unfortunately, he added, indices of titles and names, passive lists of sources are made up, rarely something else than „*restrictive categories of research in a library. Essays and syntheses, real models of creativity are missing*”. The message lies in the necessity of information by doubling it with data, positions and ideas of real interest.

However, *„because after 1998 our society, and especially the Romanian education, have evolved from data accumulation to data processing, the info-documentary society evolved in the same direction. The expert had to adapt to new requests so that the info-documentary professions had to progress from passive informative professions to analytical ones, and, instead of inherited coordinates, he could use multiface analyses, organized from various angles, of all the informational analyses, without discarding the old instruments completely. At the same*

*time the specialist himself is no longer satisfied with raw information he can find in a document, he needs to check and reanalyse it.” (13)*

In the contemporary society, the adept of information, the bibliographer or the reference librarian must demonstrate his capacity of analysis and a good knowledge of systems of finding information and, obviously, of cataloguing rules. An incorrectly processed piece of information can be found only by chance and the ignorance of investigating modalities makes impossible orientation in the modern informational system.

The process of communication is, in fact, in a permanent evolution, which vastly influences both intermediation and the techniques applied by intermediaries. *„what we actually understand by COMMUNICATION, in about 20 years shall be considered only an attempt of training the capacities of our cortex. But in order to modify the notion of COMMUNICATION and in order to make this process happen, new mentalities and especially people are needed, ready to change their way of acting and thinking”.* (14)

The shortage of resources (15) in education, the scientific and cultural research engendered a serious crises of identity and activity in the bibliography sector as well as in the infodocumentary one in the Romanian education. A pertinent example is pointing to the hiatus in the indexing of serials for more than a decade and which has been causing, inevitably, the impossibility of finding innumerable pieces of information.

Students and specialists, irrespective of fields of activity or disciplines under study, need elaborated bibliographic instruments to have rapid access to published works of interest.

At present we need a national bibliographic program as a priority. This should be preceded by a few aspects:

-subjectively, there is a perception and a comprehension crisis involved in the bibliographic phenomenon as such; we lack an informational policy to identify and instruct the potential users of college level, therefore, with the exception of some passionate users of internet and who happen to navigate on some bibliographical data base, nobody is willing to deal with this phase, both preceding and indispensable for a scientific research as a bibliographic investigation:

– another obstacle is the absence, in our literature of speciality, of some analytical detailed approaches, either regarding the negative implications of the above-mentioned phenomena or the potentially correct solutions.

An aspect we cannot neglect refers to the fact that, in spite of the undoubted importance of the processed information made known by means of bibliographies, they are perceived as unprofitable – from the financial point of view, a real situation, actually – even if it represents the pole of the present scientific and university life.

The priority issue is yet the exaggerated number of bibliographical productions, often competitive, even parallel, unballancing, not only for the users but also for the specialists searching the internet frequently and with expertise for information.

The data bases contain information characterized by logical relationships and submitted to some techniques of processing. Following a global analysis, the redundant information is eliminated and the structuring of the pieces of information kept may allow the simultaneous access to the same data of any category of users. This information must serve as large a number of requests as possible. And all this under controllable redundancy.

Thus, online bibliographies facilitate the access to an impressive volume of bibliographic registrations of structured documents so that to allow finding and identifying the information of interest. To this purpose there have been elaborated thesauri of terms with hierarchical and synonymy relations ensuring the direct access to the data bases registered, treating the specific requested subject but also an indirect access, by means of generic terminology. We don't have to ignore the achievement of an interface as friendly as possible which contributes to a good reception and to a better quality of the online data bases.

On the other hand, „*As bibliographical data bases represent computerized compilations of references of original works, the user, by means of a variety of computer programs, can obtain information about a certain object or a certain work by a multitude of means. This means that the results displayed and the possibilities of finding vary although the basic information is always the same.* (16)

Web sites, generally those of the university libraries, usually offer access to the research and electronic publications data bases or to the integral electronic version. We think of electronic journals and of other types of electronic texts as well.

If, ten years ago, the Web pages, being static, were easier to update, at present the managerial issues on the quantity of online research sources, is more difficult to administrate, and has led to preferences of the university libraries for certain online resources. (17) The latter offer direct access to all existing sources of information: electronic texts, online publications, bibliographic, factual or full-text data bases.

As to the users – students, researchers, professors, teachers, engineers – they have, apparently, three things in common, according to an American recent study:

- 1) they access resources online frequently;
- 2) They are focussed on a certain type of topic;
- 3) The process of finding is usually heuristic, trial-error type;

80% of the users of data bases appeal to the online access at least once a week. (18)

Unlike librarians, most users, appeal to a synthesis of searching as easy as possible being sure of their capacities of retrieving the information. This explains their numerous failures of retrieval. From this reason, the creators of such databases have mainly in view the user's satisfaction and his performance in retrieving the information, building intuitive and familiar platforms.

The use of the computer on a larger and larger scale permitted the management of an important quantity of bibliographic references in a unitary way, in one collection only, so that the access to information be facilitated.

On the other hand, the rapid development of the technology of information has contributed to the transfer of the supremacy from the bibliographic data bases to the factual or to the full-text data bases, the first co-existing with the subsequent ones but with a subsidiary importance of the impact on the users.

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