

# *Conceptions of Bibliography in the Russian Federation: The Russian Phenomenon of Bibliographic Theory*

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This article aims to explain the essence of the theory of bibliography as it has developed in Russia since 1975. The basic methods used are literature review and analysis of theoretical concepts. The article consists of a background section, presentation of four main concepts of modern Russian bibliography and an attempt to relate those to the equivalent concepts in the Western (mainly English) LIS literature. The four Russian concepts described are the 'documentary' concept of bibliography by Korshunov, the 'ideo-documentary' concept by Sliadneva, the 'cognitive' concept by Fokeev and the 'epistemological' concept by Astakhova. Basic features

and shortcomings of each theory are discussed. The ideas of the four authors had to be significantly compressed for the article, and the authors of this article also confronted major difficulties in reproducing the equivalent of Russian academic LIS language. The essential issues reflected in the theories are the context, in which bibliography emerges and develops, the basic functions and role of bibliography in society, the essential features and structure of bibliography, the regularities of the development of bibliography, the role of bibliographic science and the theory of bibliography.

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## *Introduction*

The word "bibliography" is usually associated with the rather tedious job of creating bibliographic citations, cataloguing, building national bibliographic databases or, in the case of historical bibliography, working with dusty volumes. Very few in the West will relate to bibliography as an intellectually challenging, advanced and modern discipline with a high theoretical level that brings revolutionary change (a paradigmatic shift) to a whole range of information-related disciplines. However, this is how bibliography, or rather the theory of bibliography, has been perceived by many researchers and professionals in Eastern Europe since the middle of the 1970s. It still holds this image in Russia and neighbouring countries, although it is relatively unknown outside the region.

Bibliography is a universal phenomenon of a modern society. Most countries create centres of national bibliography and indexing and abstracting services that produce databases and publish printed indexes. Modern bibliography meets with more and more complicated problems as a consequence of the new ways, forms and methods of information creation, processing and transfer, provision of new information services, and general development of communication. This gives a strong impetus for conducting research related to this particular area. Different histories and social realities determined that disciplines related to bibliography developed separately along the borders dividing Western and Eastern Europe. We believe that the exchange of ideas across these boundaries is useful for both sides. Lately, more and more ideas from the West are absorbed in the Eastern European region. However, the reverse

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happens less often in the social sciences and humanities.

The differences in the development of research in library and information sciences should be addressed separately in an historical study. Our modest aim is to explain the essence of the theory of bibliography as it has developed in Russia since 1975, to reveal the contents of discussions that raged around the subject over nearly thirty years and to trace, where possible and necessary, the parallel concepts in Western information and library science. The basic methods we use here are literature review and analysis of theoretical concepts. The article consists of a background section, presentation of four main concepts of modern Russian bibliography and an attempt to relate those to the equivalent concepts in the Western (mainly English) LIS literature.

### *Background*

What is known in the West about the Russian theory of bibliography?

As one of the participants in the International Conference in Crimea put it,

A lot of library and information oriented activities in the contemporary literature are written about and disseminated in English that largely reach English speaking nations and communities particularly in the developed world. What goes on in Eastern Europe and indeed in the developing countries hardly reaches the large international academic and professional community due to, predominantly, language and economic barriers or bias. The CIS [1] is on UNESCO record to be in possession of the largest library centres, treasures and systems in the world. (Ocholla 2002)

Despite this, the information reaching the world from this region is quite limited, though growing.

We tried to check the initial assumption that information about the modern Russian theory of bibliography is scarce in the West. A search on the *Web of Science* (1986–2003) for articles by major Russian writers on bibliography or relevant cited items yielded, as expected, no results. We also conducted searches in major databases recording library literature, such as ISA, LISA and *Library Literature & Information Science* (1975–2003). Most of the relevant findings were articles in Russian journals and the Russian language. However, Russian libraries have received greater coverage

in English language journals since 1991. The list includes a collection of papers (Kimmage 1992), material from the *Russian-American seminar on critical thinking and the library* (1995) and about a dozen articles on different Russian libraries, library history and reading in Russia, mainly written by Russian authors. A Web search provided a site created by Lindsay Johnson (1999), which holds a review of literature on Russian libraries.

There are also some articles that could be regarded as dealing with bibliographic topics, like classification for human knowledge by Sokolov (1993) or use of authority files by Loginov et al. (1996). Choldin (1977) and more recently Lelikova (2001) address more general issues of the historical development of bibliography. But we failed to find any coverage of the theoretical issues of bibliography. The theory of bibliography is mainly developed in Russia, some NIS (new independent states that belonged to the previous Soviet Union), and other Eastern countries (Bulgaria, China, etc.). It began with a monograph on general theory of bibliography by O. P. Korshunov in 1975.

### *Major Russian concepts of bibliography*

The bibliological concept of bibliography that relates bibliography to book research prevailed in the Soviet Union (and Russia) for a long period, from the end of the 18th century to the 1920s. The interested reader may find English articles by Choldin (1977) and Lelikova (2001) that discuss some of the developments of this period. With the start of the Soviet period, bibliography was treated as a state institution supporting the communist education and ideology systems. The state funded national bibliographic agencies and bibliographic education, and developed a whole system of bibliographic and information centres. However, any intellectual or research activity was stifled by the prevailing ideology. Nevertheless, the need to reflect on major developments was great and in the middle of 1970s a major paradigmatic shift occurred. Barsuk (1975) renovated the bibliological concept of bibliography and Korshunov (1975) created an entirely new concept, which has become the main paradigm of bibliography and is still being developed and enriched by the younger generation.

Fig. 1: Bibliography as a system of activities



**The “documentary” concept of bibliography: a modern paradigm of bibliography science**

Korshunov defines bibliography as a wide range of different activities ensuring the functioning of bibliographic information in society (see Figure 1).

The main area of the system is bibliographic practice. Bibliographic practice is the practical creation of bibliographic information and bibliographic services in society, supporting practically every other human activity through a wide range of institutions (libraries, archives, museums, information services, indexing and abstracting centres, publishing, science communication, etc. (see Figure 2) or beyond them. It is supported by bibliographic education and management activities. Management means regulation of bibliographic activity on the state level (macro), management of bibliographic organisations (meso), and management of bibliographic processes at the level of the individual (micro).

A theory of bibliography has to provide for the most general and abstract explanation of bibliographic phenomena. Korshunov provided this first abstract explanation of ‘documentary bibliography’ in his monograph *Problemy obshchei teorii bibliografii* (1975) (The problems of the general theory of bibliography).

The science of bibliography includes four aspects of research:

- theoretical research
  - historical research (history of bibliography as such not history of books)
  - organisational research
  - research into practical methods.
- } these two constitute applied research.

Fig. 2: Structure of institutionalised bibliography (from Korshunov 2000)

2. Bibliographic level	Bibliography					
	1	2	3	4	5	6
1. Direct documentary level	Literature	Publishing	Book selling	Functions of national libraries	Activity of information centres, abstracting & indexing services	Archival work

Korshunov saw the origin and the cause of all bibliographic activity in human communication mediated by documents. A document in this case is information that is permanently recorded on any medium (video, film, paper, computer disk, also museum artefacts, herbariums, etc.). Therefore, Korshunov named his concept “documentographic” (which we translate here as ‘documentary’) as different to “bibliological”, which relates bibliography exclusively to books (Barsuk 1975). He reduced the linear model of communication to a formula “Document-User”. According to Korshunov, this relation between a document and a user conceals the whole potential variety of bibliography (Korshunov 1975, 51). The contradictions in this system create information needs. Using the method of abstraction (from particular to general), Korshunov created a concept of a “universal information need” that expresses the essence of all individual needs for information in society. Bibliography serves these needs by producing bibliographic information, which performs three essential social functions described below.

‘Bibliographic information’ is central to Korshunov’s concept, playing an enormous role in formulating and developing the foundations of the bibliographic theory and revealing its general essence. Bibliographic information is defined as organised data about documents, produced for the purpose of locating a document, communicating the existence of the document or evaluating a document. Bibliographic information can exist in the form of a record, simple list or a complicated index (i.e. database or information retrieval system).

Korshunov names three essential social functions of bibliographic information: searching (which caters to the need to identify and locate a document), communicating (informing about

documents' existence), and evaluating (assessing the document from the point of view of the user's needs). The deduction and proving of these functions had a huge significance for young Soviet bibliographers and librarians. The discipline not only reached desired theoretical heights – it was freed from the long-term subordination to ideology. Despite the author's elaborate explanations of the ideological foundations of the whole bibliographic system, it was clear that the searching and communicating functions do not serve ideological goals (Korshunov 1975). Even the function of document evaluation was freed from ideological limitations as it was founded on the needs of user groups or individual users.

Korshunov took into account the data that characterise bibliography from different aspects: morphological (structure and composition, classification), functional, systemic and genetic (historical evolution). The synthesis and integration of several methodological means ensured the coherence of the documentary conception. The general methodological assumption is that bibliography is a complex, differentiated, historically determined, coherent social phenomenon with a constant internal structure. He theoretically reconstructed this phenomenon as an integrated whole by using a systemic approach.

The genetic approach was used to explain the consistent historical development of bibliographic processes, "the realisation of searching and communicating functions genetically happens prior to the realisation of the evaluating function" (Korshunov 1975, 112). While the functions of bibliographic information also served as the criteria for the classification of bibliography, the genetic structure of the main social functions of bibliographic information helped to explain the relationship between general and special bibliography. General bibliography realises the genetically primary functions of searching (as in identifying and locating a document in a catalogue) and communicating (as in informing about the existence of a document in national bibliographies, though not only in them). Special bibliography serves the purposes of specific social sectors, like the economy, science, education, culture, ideology etc. Any special bibliographic entity will always include the possibility of performing two genetically primary functions, i.e. searching and communicating. Korshunov also produced a provisional facet

classification of bibliographies (or bibliographic tools) based on basic functions – subject (contents), purpose (user's goals and needs), formal attributes, etc. Classifications of bibliographic tools based on these criteria were later elaborated by others (Cepyte 1983; Grechikhin and Zdorov 1988).

Korshunov also formulated the regularities of bibliography:

- the double correspondence (relevance) of bibliographic information (how bibliographic information optimally bridges the two elements of the system 'Document-User') (Korshunov 1975, 95)
- the consistent historical development of bibliographic processes ("the realisation of searching and communicating functions genetically happens prior to the realisation of evaluating function") (Korshunov 1975, 145).

Korshunov also identified the principle of the recognition of bibliographic objects, processes and phenomena. He states that

in each case and within the limits, when one creates organised data about documents (but not the documents as such), presents these data to the users, or uses them for searching, informing, or recommending [the documents], one meets phenomena of a bibliographic nature." (Korshunov 2000)

According to this principle, metadata used to describe the documents provided by Web browsers and search engines are also bibliographic information. The principle was received positively in the research literature. It has played an important methodological role. It is possible to claim that this principle enabled the science of bibliography to be made into a more coherent knowledge system and to draw clearer boundaries with neighbouring sciences. On the other hand, at present some researchers express doubts about bibliographic information as the criterion for the recognition of bibliographic phenomena (Sliadнева 1993, 111).

The documentary theory of bibliography allows us to move from the theoretical level (e.g. from essential and general structures of the main social functions of bibliographic information) to the empirical and concrete level of bibliographic objects. The theoretical models created are hierarchically related and form a harmonious structure.

For a long time, this concept was the only one that reflected bibliography as a complex social phenomenon in a systematic and coherent way.

The theory attracted attention and generated stormy discussions and criticism. In fact, every single element of the concept was criticised. A whole array of authors tried to relate bibliographic information to other kinds of information, to reveal different functions and to suggest their own approaches. The definition of bibliography was criticised rather heavily (bibliography as a system of activities ensuring the functioning of bibliographic information in society). Sliadneva notes that a definition of bibliography through bibliographic information and bibliographic activity is erroneous and opaque (Sliadneva 1993, 65).

Korshunov and his opponents discarded some of the standards and stereotypes of scholarly thinking. The conception has highlighted many qualities of bibliography, shown the relationship between the components of bibliographic systems, and revealed the latent characteristics of bibliographic phenomena. Korshunov displayed an innovative and creative approach and exceptional imagination. The documentary conception retained methodological significance for two decades. Researchers have exploited the vast possibilities offered by Korshunov's concept in recent years. The vitality of some statements is proven by the fact that they are applied in library science and other related disciplines by Russian and Eastern European scholars. It was a source of new research directions in bibliography and, as such, made an impact on the whole development of bibliographic science and especially on the quality of bibliographic education.

### *Ideo-documentary [2] conception of bibliography*

One of the critics of Korshunov's theory was Sliadneva, the author of the *ideo-documentary* conception. Sliadneva (1993) claims that the modern theory of bibliography is inconsistent and irresolute about the issue of a bibliographic meta-system (or context in which bibliography exists). Sliadneva treats bibliography as information processes that occur in the mind of the individual and his/her social environment. She does not limit it to documentary communication, but extends it to the deep layers of consciousness (thinking, language, knowledge perception and transfer). She relates bibliography not to books, documents, information, or communication, but to the whole "universe of human activity".

The first feature of her concept is that the universe of human activity is recognised as a meta-system of bibliography. It (the meta-system) includes the totality of the past, present and potentially forecasted areas of human activity. It consists of all areas of activity, including science. The universe of human activity changes, differentiates and grows quantitatively according to the material, social, anthropometric and information premises of different historical periods. Sliadneva postulates that the universe of human activity is a meta-system that generates information (including bibliographic information) and uses it through feedback.

The object of bibliographic reflection becomes a central issue in *ideo-documentary* conception. The conception claims that the object of bibliographic reflection includes meaning, text and document. In fact, the origin of bibliography should be related not to the emergence of the document, but to the times when humanity operated with only the fragments of non-fixed information: myths, poetry, legends, which were learned by heart, stored in memory and transferred orally. This pre-documentary period also had certain information barriers and contradictions. The author reminds us on one hand of the unlimited human social practice and the necessary knowledge for it; and, on the other hand, of the limited anthropometric parameters of individual consciousness, the capacity for creation, perception, processing, remembering and absorption of certain amounts of information. When the extent and variety of information objects becomes disproportionate to the individual parameters of consciousness, then a need emerges to "save" intellectual resources, memory, operational thinking and communication efforts. This need has generated various ways and methods for the symbolic representation of ideas, i.e. ideography.

Sliadneva perceives ideography as the signification of information (or knowledge) portions (or quanta) by certain ideograms, which serve to concentrate meanings and contents, and for operating these ideograms in various ways instead of manipulating the original thoughts, ideas, etc. Sliadneva calls these originals "information objects" (or "info-objects") and introduces a category of sovereignty to signify their uniqueness, individual quality and difference from other objects. The sovereignty may be a feature of different info-objects: meanings, texts, documents or

authors. Sovereign meanings are indicated and individualised by means of ideograms. The author claims that the sovereignty of info-objects at some point was the cause and the necessary condition of bibliography. Sovereign meanings and texts overload the information channels and the memory. Therefore, they require ideographic concentration and modelling, that is, transfer to ideograms. Bibliography helps us to manipulate not only documents, but also the other sovereign info-objects by expressing and preserving their sovereignty.

Sliadneva distinguishes four different levels of production of bibliographic information. On each level of bibliographic activity the product is a specific type of bibliographic information, which becomes a foundation for the creation of other types. She suggests that Korshunov did not investigate bibliographic action, and therefore he fell under the illusion that bibliographic information is a starting point. Sliadneva sees the essence of bibliography in the role it plays within the universe of human activity, which is a role of a method – a universal method of operation with sovereign info-objects in research and practice. It is indispensable while manipulating meanings, texts, documents, and their authors. Bibliographic method is universal (general) because it is used whenever someone manipulates information or its documentary (recorded) formats. Researchers use bibliographic method when quoting or mentioning the works, conceptions, ideas, etc., of other authors. In research, bibliography is a general and special method; in everyday life – a practical method, as any other that is used by human beings in practice. Therefore bibliographic science belongs to the group of methodological sciences (e.g. mathematics, statistics, cartography, logic, etc.). The subject of a methodological science is the operational methods of human activity. Bibliographic science belongs to this group, as it is a methodological area of the universe of human activity resting on the foundation of the bibliographic method. This means that the ideodocumentary conception regards bibliography not as a production, but as an area of application of specific methods. Bibliography supplies the method and means for operating with sovereign info-objects. A typical version of bibliographic method is bibliometrics (a synthesis of bibliographic and mathematical methods).

Bibliographic substance consists of the knowledge of a complex structure and a method that are naturally included into a non-bibliographic result. The author reveals the modelling and compression as substantial features of bibliography. The modelling approach to bibliography has been used since the 1970s and the 1980s. Sliadneva thinks that compression is an initial stage and way of modelling. Its result is a model; however, the act of modelling is not finished by creation of a bibliogram (a bibliographic model). The modelling goes on by changing, developing and interpreting the model.

Sliadneva's ideas were criticised for being too abstract and unrelated to any bibliographic practice. Korshunov accused her of "taking the method to the point of absurdity" (1993). Sliadneva also discussed a range of other problems, such as the functional structure of bibliography, its relation to the other areas of human activity, etc. She suggested renaming bibliography "informography", because this term could better express its essence. However, neither Korshunov nor Sliadneva tried to define what 'information' means in the context of their theories.

### *Cognitive conception of bibliography*

Fokeev (1995) noticed that the term 'bibliographic information' had pushed out the previous term of 'bibliographic knowledge'. He returned to it by developing a cognitive concept of bibliography, in which the central category is "bibliographic knowledge".

Fokeev explains bibliography as a research activity, the result of which is bibliographic knowledge. It produces and systematises the knowledge about one fragment of reality – the world of texts and related phenomena. The subject of bibliographic cognition [3] is the knowledge recorded in texts. Bibliography is treated as a method.

This concept is a continuation of a stormy development of sciences about knowledge (epistemology, cognitive science) during the last decade. Fokeev proves that bibliographic knowledge occupies a specific place in human knowledge. It is not a simple copy of the mass of documents. The phenomenon of bibliographic knowledge (what a person learns with the help of bibliography) forms the skeleton of the conception. Attention is focused on the nature, specificity, structure, quality

and features of knowledge as such. Bibliographic knowledge is treated not only as a means of cognitive activity, but also as a means of communicative and value-orientation activities [4].

Bibliographic knowledge is divided into everyday (simple) and empirical research knowledge. The first is random, unorganised knowledge about the existence of documented texts and their usefulness. Bibliographic research knowledge is characterised by conscious and directed seeking of knowledge about the world of books, systemic bibliographic learning. The analysis of a text within a certain theoretical approach, relevant selection of data for bibliograms (bibliographic records) – all this turns bibliographic knowledge into empirical research knowledge.

Fokeev states that bibliographic knowledge consists of several levels of different character and cognitive potential:

- knowledge about separate bibliographic facts (descriptive level);
- explanatory knowledge (interpretation and assessment of bibliographic facts, flows, etc.);
- classification knowledge (interpretation and evaluation of bibliographic facts and their mass);
- knowledge of the regularities of development and functioning of documentary texts within the system of social communication;
- knowledge that is expressed as instructions (read – not read; recommend – not recommend), etc.

The investigation of the essence and origin of bibliography has to start with the development of relations within the system, which includes bibliography. Fokeev claims that this system is a particular “node” of the relationships between texts and users that ensures the interactions between them (in fact, this is a broadened Korshunov’s formula Document-User). In his opinion, bibliographic knowledge (the result of this interaction and a mechanism of it at the same time) influences the world of texts and users, makes their relationships optimal and helps to develop and change them purposefully.

Fokeev is convinced that many laws identified as information, scientometric, bibliometric, etc. were discovered using bibliographic knowledge. In his opinion, all of them should be acknowledged as bibliographic laws. As it is, the bibliographers have lost the control over their own science. Fokeev is aware that bibliographers and

information scientists are involved in bibliometrics and scientometrics, yet, he points out that most of the regularities discovered by them are treated as the laws of science communication, publishing, science evolution etc., and not as bibliographic ones.

The main functions of bibliography, in Fokeev’s conception, are the cognitive, communicative, and value orientation functions. Bibliography not only investigates the texts, it generates knowledge of them (often entirely new knowledge that did not exist previously in any documentary form). It accumulates, generalises, structures this knowledge, and ensures its storage, safety, and transfer. Apart from generating knowledge about texts, bibliographic knowledge performs the role of communication. Cognitive and communicative bibliographic functions are relatively independent and develop separately. Bibliographic communication is understood as human interaction through the exchange of bibliographic messages, the exchange of information about texts, or the link between persons while transmitting bibliographic knowledge (Fokeev 1995, 88). During this process, knowledge is not only transmitted but also formulated, developed, and specified. Fokeev thinks that searching is one of sub-functions of the communicative function (this is an essential difference from the documentary conception of bibliography). Much attention is paid to bibliographic knowledge as the means for value orientation, regulation and management. Documentary texts for a bibliographer become a cultural value. The objects of the value relations in bibliography are texts and their significance for people. Bibliographic description of ideas (i.e. their nomination, definition of identifying features) signifies transition to the deep level of bibliographic analysis and synthesis.

Fokeev concludes that the structures of bibliographic knowledge belong to bibliography and also to the other areas of science and practice (like historiography, statistics, bibliometrics and other metric disciplines, research, education, book publishing, book trade, librarianship, etc.).

Fokeev’s conception was received favourably by the research community. One of its main shortcomings according to Shvecova-Vodka (1998) is the lack of a definition for “bibliography” itself. Therefore it is impossible to compare the concepts of “bibliography” and “bibliographic knowledge”.

### *Epistemological conception of bibliography*

Fokeev focused attention on bibliographic knowledge. Astakhova turns attention to bibliographic cognition (1997). She indicates that nobody doubted the scientific character of bibliographic knowledge until the end of the 19<sup>th</sup> century. Bibliography was treated as science as it met the demands for a science at that time. The main method in natural and social sciences was a descriptive method. Bibliography was no exception. Later the descriptive method lost its dominating role as new standards were introduced in science. Bibliography still limited itself to a descriptive method and could not meet the new demands.

The epistemological conception claims that bibliography has developed according to the evolution of science. The development of bibliography before the 17<sup>th</sup> century was pre-bibliographic. Its main features were:

- the absence of a special social institution and special term for pre-bibliographic activity;
- the main object was the text of a manuscript;
- affined and latent [5] forms of bibliography;
- the emergence of library catalogues and certain kinds of bibliographies, such as national, retrospective and others;
- a small number of users of bibliographic knowledge;
- the start of the formal, subject and evaluative structures of bibliography.

After the 17<sup>th</sup> century bibliography began to develop. Astakhova distinguishes the stage of classical bibliography (from the 17<sup>th</sup> to the 19<sup>th</sup> centuries), the non-classical stage (starts at the beginning of the 20<sup>th</sup> century) and neo-classical stage (the present stage started only recently).

The main object of cognition in classical bibliography was the printed book and the main goal of a bibliographer was to reflect its essence (i.e., contents) with maximum precision and completeness. Various kinds of bibliographic phenomena (retrospective bibliographies, library and book trade bibliography, critical and recommendatory [6], current national bibliographic control, special bibliography and bibliography of bibliography) appeared. The highest achievement of classical bibliography was the general biblio-

graphic index that tried to solve the problem of full and precise reflection of texts. During this period bibliography was perceived as a science of the book. The attention of researchers was focused on the book. Since bibliography provided the descriptive knowledge of a book and the description was the primary form of receiving scientific knowledge, bibliographic indexes became the empirical materials for the book science. Bibliography neglected the information user entirely.

The non-classical stage focuses the attention on the user. Korshunov has captured the essence of this period in his concept. Astakhova thinks that a distinguishing feature of the neo-classical bibliography is methodological self-reflection and search for the essence of bibliography. A new type of knowledge creation (as in the theories described above) is a feature of this stage in bibliography. Production of bibliographic information becomes a type of research activity, bibliographic knowledge – a kind of scientific knowledge, bibliographic method – a specific research method, the evolution of bibliography is characterised by the development of bibliography as a science (or theoretical discipline).

Astakhova claims that the object of bibliography is a text – a system of signs, which serves as a carrier of meaningful information and is of linguistic origin. To nominate the totality of the texts the author uses the term “hermeneutic universe”. As the text is linked to the reader (information user) it indicates the humanitarian approach. Therefore, Astakhova treats bibliographic cognition as a type of humanitarian and humanistic cognition. Bibliographic knowledge is treated as a result of this cognition. Its highest form is the creation of retrospective bibliographies that sum up the hermeneutic universe.

Astakhova discusses the specificity of bibliographic language in great detail. The bibliographic language performs three functions of 1) communicating (or keeping in contact), 2) informing (providing information through messages) and 3) impact (change in behaviour or mind). The communicating and informing functions dominate in research bibliography; the function of impact prevails in recommendatory (educational) bibliography.

Astakhova distinguishes three levels of bibliographic hermeneutics as bibliographic cognition:

- Descriptive level of the meaning of the text, determination of its content (the process of bibliographic concentration of texts);
- Normative level (inclusion of the meaning into different information contexts, determination of the meaning of its functional contents); this includes selection, systemising, construction of auxiliary indexes;
- Summary level (the process of retrospective bibliography).

Astakhova notes that bibliographic knowledge is not perceived by society as an independent source of scientific information. Bibliographers have to popularise it as scientific knowledge to create greater use and better understanding. This perception of bibliography brings us to a new perception of bibliography within the system of sciences. Astakhova notes that bibliographic activity is very close to cognitographic activity (that is a part of cognitive science). Without any doubt, bibliographic activity is a part of information activity and bibliographic science of information science. Bibliography as a part of information science together belongs to a wider system that is – intellectics. The author admits that the place of bibliography within the system of sciences is a complicated one. The final decision on its location might be taken if and when a new classification of sciences and activities is created to reflect a general humanitarian orientation.

Astakhova presents an original structure of bibliography as a scientific activity. It consists of production of bibliographic knowledge, bibliographic knowledge itself (the result of research) and its functioning (bibliographic use, reproduction of bibliographic knowledge and bibliographic knowledge as an indispensable part of bibliographic education). There are two levels within bibliography: scientific cognition as such (its goal is the creation and reproduction of subject, functional, methodological, historical, and scientometric knowledge) and practice, related to the support of research activity (spread of bibliographic knowledge and support of use; management of bibliography and education). At present bibliographic science is treated as a reflective part of bibliography, the goal of which is to investigate the theory, history, and methodology of scientific bibliography as a whole.

In the last part of her monograph Astakhova investigates the use of bibliographic knowledge as a process of rationalisation of the reader's ac-

tivity. The result of the use of bibliographic knowledge is the flow of new knowledge. Bibliographic information becomes the source of new scientific knowledge. It is an objective source of knowledge about the trends in a certain science in different stages, and it reveals the gaps and heights in specific research area and relations with other sciences. The state of the science is expressed in bibliographic language. Astakhova compares bibliographic information to the long-term memory of science, its defence against deprivation and oblivion.

Opponents have criticised this conception on the grounds that Astakhova has founded it on one concept of science and knowledge. Sokolov (2001) indicated that it is a mistake to treat all bibliographic constructions and models as scientific. However, this conception increases the status of bibliography in more than one way, provokes scientific thought and might become a foundation for a unified theory of bibliography.

### *Discussion and conclusion*

In Western countries the concept of bibliography is still ambiguous and confused, despite many attempts to clarify it. The confusion springs from different national concepts and traditions. Blum (1969) has provided a deep overview and analysis of the development of the concepts of bibliography in Germany, France, and England from the beginning of the 19<sup>th</sup> century to the middle of the 20<sup>th</sup> century. Krummel (1984) makes a distinction between bibliography as activity (of a bibliographer) and bibliography as a product. He categorises the latter using Blum's national approach into:

- the Germanic type bibliography that consists of bibliographic listings and presents book and documentation in modern information science,
- the British type bibliography or a study of books. This is the dominating concept of bibliography in the works of Greg (1932), Gaskell (1995), Stokes (1969) and
- the French approach, which regards bibliography as a cultural (Krummel 1984, 5) and cognitive (Malclès 1967) force.

The second concept of bibliography (or British tradition) in Germany, Russia and most other Eastern European countries was developed into a discipline of “book science” or book research with a term reflecting its essence: *Bücherkunde* (German),

*knigovedenie* (Russian) or *knygotyra* (Lithuanian). During earlier phases Russian bibliography was closely associated with this discipline and concerned with provision of historical factual material about books to it or summarising its findings. Also at present a strong group of researchers is developing this concept of bibliography in Russia. Astakhova's concept includes some of these ideas and builds on them.

In the West, the duality of the term "bibliography" is firmly conserved in the *International encyclopedia of information and library science*.

"Bibliography [is] the systematic listing and analytical study of books, manuscripts and other documents ... Bibliography is also the study of books ..." (Feather 2003).

In an American encyclopaedia Stokes refers to "a primary bibliographic function of listing individual items ..." and "analytical or critical bibliography ... [that] covers the investigation of the physical nature of the book", which can reveal the circumstances of book manufacture and history (Stokes 1969, 407, 414). The Oxford English Dictionary sticks to the "nobler" meaning of the word "bibliography" as "the systematic description and history of books, their authorship, printing, publication, editions, etc." (OED 2000). The term "bibliology – the scientific description of books, book-lore" (OED 2000) later became a synonym of bibliography. Much literature in the field discusses the links between the two meanings and fine differences between different processes and results of these two bibliographies. From our point of view this is a rather futile exercise because two entirely different though related fields of activity and scholarship are given the same name.

Modern Russian theories of bibliography are rooted in the Germanic and to some extent the French tradition and at present make a rather clear division between bibliography as a practical activity of producing data about documents and "book science" or research of a book, including its history. Russian theories can be related to the understanding of bibliography (science) as a part of information science:

La bibliographie est le secteur de la science de l'information qui constitue les stocks ordonnés de références aux documents et les rend accessible aux demandeurs, employant indifféremment pour ce faire des procédés manuels ou automatiques. (Taffarelli 1980)

As a practical activity bibliography in Russian theories would be close to Hale's (1970) understanding that "bibliography is intimately concerned with the flow of information ... along with other aspects of the whole problem of information and communication" (Hale 1970, 58) and will answer "the need to impose order on the scattered records of human activity" (Hackman 1970, 3).

The term "theory of bibliography" is very rarely met in the Western library and information science literature. Most of the literature that comes under this title would fall under the methodological research of bibliographic science (see Methodics in Figure 1), describing or analysing methods and tools of creating bibliographic aids, or under historical analysis of the development of bibliographies (listings) and their compilation specifics, or will be devoted to the discussion of the definitions of bibliography (see above). The theory of bibliography as a comprehensive explanation of the phenomena as in Russia does not exist in the Western world. However, one can find fragments of theoretical knowledge that can be compared to some aspects of Russian theories.

It is possible to trace the changing understanding of the object of bibliography from only books in earlier works (e.g. Besterman 1936), to other printed or written documents (Beaudiquez 1989), and to include computerised documents (Hackman 1970). Wilson's (1968, 6–19) concept of bibliographic universe as the things over which one might have bibliographical control is close to Astakhova's "hermeneutic universe" (or totality of texts) as an object of bibliography. Wilson's (1992) partial bibliographic theory found in "Pragmatic bibliography" also seems close to the Russian concepts. He contrasts the activity of creating comprehensive bibliographies and catalogues, and abstracting and indexing journals, with pragmatic bibliography (the activity of one person engaged in a specific limited query). Though contrasted these activities are united under the concept of bibliography as specific type of activity. It is also possible to derive from this the unifying concept, such as bibliographic information (first activity will be concerned with producing, the second with using it). However, the broadness of the Korshunov's concept of "bibliographic information" is closer to the concept of metadata as defined by Dempsey and Heery (1998, 149) and used by Borgman:

Metadata is [sic] data associated with objects which relieves their potential users of having full advanced knowledge of their existence or characteristics. A user can be either a program or a person. (Borgman 2000, 68)

Looking at the other elements of a communicative system, one can see the gradual intrusion of the user into an isolated scholarly world. At the same time the needs of an enquirer “in discovering the existence or determining the identity of ... documentary material” start shaping the work of a bibliographer (Robinson 1971, 13). Robinson in essence defines the basic needs for bibliography that determine the functions of bibliographic information. But the authors who preceded and approached closest to Korshunov’s societal needs are Egan and Shera (1952). They suggest conducting social analysis in order to establish

appropriate bibliographic communication (1) within each group, (2) among the several groups of scholars-specialists, and (3) between groups at the scholarly level and the various groups of practitioners, operators, educators, and lay public. (Egan & Shera 1952, 126)

However, the authors have not capitalised on their own initiative to develop the theory. Russian theories in general answer the demand to create a macrocosmic approach to bibliography, which “should be a carrier system for ideas and information” (Egan & Shera 1952, 125).

The term “theory of bibliography” is also used in the context of what today is called the “knowledge organisation” area, which in the 1950s was referred to as bibliographic organisation (Shera 1950). Several significant parallels also can be traced within the latest theory of knowledge organisation put forth by Smiraglia (2002). To some extent Astakhova’s attention to bibliographic language is matched by Svenonius’ (2000) concern with semantics, syntax, pragmatics and rules of bibliographic languages.

We would see the example closest to the approach of Russian scholars in eleven approaches to domain analysis in information science as described by Hjørland (2002). Most of these approaches were used in Russian theory of bibliography to explain the domain of bibliography. All the authors applied historical study, as well as studies of documents, professional terminology, structures and institutions in bibliography, paid close attention to the classification of bibliographic production and the role of bibliometrics

(though their applications differ from those suggested by Hjørland). They also apply categories of epistemology, scientific cognition and critical studies in their works.

The newer Russian theories by Fokeev and especially Sliadneva are to some extent related to the sociology of texts or bibliography put forth by McKenzie,

... bibliography is the discipline that studies texts as recorded forms, and the processes of their transmission, including their production and reception ... I define ‘texts’ to include verbal, visual, oral, and numeric data .... (1999, 12)

These words can be readily signed by Sliadneva, though, in fact, McKenzie has in mind bibliology (book science), not bibliography in the Russian sense of the word. However, Fokeev (the only Russian scholar who has used the English works on bibliography extensively) tries to bridge two Western understandings by introducing into bibliography the value relations carried by texts and their significance for people. Fokeev’s idea that bibliographic knowledge influences the world of texts and users mirrors Malclès’ (1967) understanding of bibliography:

... la bibliographie nous semble être surtout un méthode logique d’investigation documentaire dont les but est d’élaborer une information précise ... qui à la foi soutient et justifie un travail intellectuel et lui permet de progresser en lui indiquant les voies nouvelles.

We have significantly compressed the ideas of the four authors and presented them in an impoverished form. Otherwise, we could draw more parallels with theoretical works published in the West. We also have concentrated on four authors whose ideas are most interesting from our point of view. We have not discussed the cultural concept of bibliography by Vokhrisheva or neo-bibliological concepts by Barsuk and later Grechikhin as well as many others, e.g. bibliographic needs by Kogotkov (1986). In addition, we have met major difficulties in reproducing the equivalent of Russian academic LIS language in English. That might also distort the overall picture to some extent.

However, we are sure that we have managed to convey the essence of the theoretical approaches used in Russian bibliography as well as the merits of the theories. We also see the basic

shortcoming of all these works: the great distance between the developed theories and bibliographic practice. As recent discussions in Russian LIS journals reveal, bibliographic practitioners do not relate their present and future situation to the intellectual disagreements or advances of academics. They face new problems posed by the arrival of modern ICT to the Russian library scene, the need to enter and be incorporated into the world-wide information space, to resolve the problems of a library presence on the Internet and to cater to the changing information needs of Russian society. The complexity of Russian scholarly language and the abstract nature of the existing theories prevent the practitioners from seeing in them the methodological or instrumental tools and principles to meet these challenges. On the other hand, the Russian theory of bibliography is based on strong humanistic traditions and has evidenced high intellectual potential. A new paradigmatic shift in bibliography might not happen as some authors (Sokolov 2001; Dunaeva 2002) would expect, but if applied to the solving of immediate problems these theories and intellectual potential might change the scene of Russian bibliography in practice.

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### Notes

1. Commonwealth of Independent States – previous republics of the Soviet Union.
2. In Russian, the original concept is called “ideo-documentographic”. This is a newly coined term in the Russian language, which means “describing of ideas/documents”. We found that in English the term “ideo-documentary” is more acceptable.
3. Cognition in this case: the action or faculty of knowing taken in its widest sense, including sensation, perception, conception, etc., as distinguished from feeling and volition; also, more specifically, the action of cognizing an object in perception proper.
4. Being oriented within or finding out about societal judgements of what is valuable and important in life.

5. These terms were introduced by Sliadneva. A latent form of bibliography occurs in the text in the form of references and connects it with other texts. An affined form of bibliography occurs in the process of production of information and document when, for example, an author or a publisher provides title, annotation, keywords, etc.
6. Recommendatory bibliography caters to the educational, cultural and ideological spheres.

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