DIGITALIZATION OF THE REPERTOIRE OF BOOKS FROM THE BULGARIAN REVIVAL (1801–1878)

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DIGITALIZATION OF THE REPERTOIRE OF BOOKS FROM THE BULGARIAN REVIVAL (1801–1878)

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Abstract

The study presents a project aiming to create a methodology for digitalization of the retrospective bibliography (repertoire) of Bulgarian Revival books from the beginning of the 19th century until the Liberation of Bulgaria in 1878. The fundamentality of the research is determined by the fact that the currently existing printed versions of the bibliographic array differ in structure, quantity and content which does not allow a fast and reliable analytic processing of the bibliographic information. The development of a methodology, testing and elaboration of information retrieval system which contains bibliographic information about the Bulgarian books issued from 1800 to 1878 will contribute considerably for the modernization and the accelerated development of many fields of the humanities and social sciences: general and cultural history, history of literature, book history, bibliography, library science. The new information retrieval system applies innovative methodology of the geographic information systems which visualizes bibliographic information and allows its utilization by means of topographic indexes. The elaboration of bibliographic database based on the principles of information retrieval systems and geographic information systems has a fundamental character for the development of the Bulgarian science and at the same time uses innovative methods, leading to sustained development of the scientific activities in the field of humanities and social sciences. The project team has taken into account the specifics of the Bulgarian book publishing during the 19th century (the books look much more like the European paleotypes from 16th century than like the book publishing patterns in Europe during the same period) and the achievements of the modern bibliographic resources.

Keywords: Bulgaria, Revival books, retrospective bibliography, digitalization, information retrieval system, geographic information system.

1 INTRODUCTION

The Bulgarian bibliography is already 165 years old and despite its long and fruitful history in helping the public, during the second decades of the 21st century it is still in its "classic" printed stage of development. The current study reflects the first attempts to create a bibliographic analytical repertoire based on cloud technologies. The project focuses on a small part of the Bulgarian literature, published from the beginning of the 19th century until the Liberation of Bulgaria in 1878.

The Bulgarian book of the first three quarters of the 19th century is a difficult object of bibliographic description. This is due not only to the fact that the books from this period experience a rapid and compressed historical evolution, but also for a number of other reasons - wide geographic dispersion, linguistic features, lack of established professional literary practices. It is no accident that Charles Jelavich calls the Bulgarian books of the period 1806-1878 Bulgarian "Incunabula" [1]. This play with the terminology perfectly illustrates the features of the Bulgarian Revival Book, which by the middle of the 19th century was technologically and visually closer to the Gutenberg era of literary culture than to the level of the developed publishing in Central and Western Europe.

Nevertheless, because of the important role for the emergence and development of the modern Bulgarian society, the efforts of generations of bibliographers have been invested, including foreign scholars such as Izmail Stresnevski (Russia) [2], Konstantin Irechek (Austro-Hungary) [3] and Valery Pogorelov (Russia) [4].

2 METHODOLOGY

The authors will not focus on the historical development of the Bulgarian Revival Bibliography, it is well described by Alexander Teodorov - Balan [5] but rather will outline the shortcomings in the classical printed bibliographic works and the possibilities for their removal with the means of modern computer and network technologies. The idea is a new bibliographic information retrieval system and a

geographic information system to be developed which will reveal in maximum depth through analytical tools the data about the Bulgarian book published in the period from the beginning of the 19th century until the Liberation of Bulgaria (1800-1878). The methodology for the preparation of the new cloud-computing bibliography provides for the comparison of all existing printed bibliographies combined with an analysis of the electronic catalog of the National Library of the Republic of Bulgaria "St. St. Cyril and Methodius" and a double manual review of the bibliographic units in more than one library fund. An option is also provided for subsequent additions and corrections of gaps and errors in the information array. The project is a product of a team of specialists from the Department of Library Sciences at the University of Library Studies and Information Technologies (ULSIT), Sofia with a considerable experience in the bibliographic field studies [6]. The team is working in active collaboration with the Department of Bibliography of Books and Other Types of Documents and the Division of Bibliographic and Information Services at the National Library "St. St. Cyril and Methodius". The digital bibliographic product is oriented towards the Bulgarian and the world humanitarian scientific community and it will be a useful resource for the world's library network.

The limitations related to the volume in the printed representation of the bibliographic information imply a strict definition of the chronological, geographic and linguistic boundaries in which the bibliographic study to be incorporated. The parameters of the book impose constraints on the work of the bibliographer and he has to take into account not the features of the materials he processes but the characteristics of the printed bibliographies. For the classical Bulgarian Revival bibliography all three indicators are extremely problematic. In the Bulgarian bibliography and book science still there are disputes about the beginning and the end point of our literary Revival. Due to the lack of limitations on the bibliographic online data base, the chronological boundary dispute can be solved by putting flexible time limits similar to the "long 18th century" in the United Kingdom [7]. Versions of the initial and final boundaries of the various bibliographers can be included in the general array with brief explanatory notes related to their theoretical rationale.

The geographic factor has always created problems for the Bulgarian bibliographers because the lack of an independent Bulgarian state until 1878 and the restrictions on book printing in the Ottoman Empire lead to the great geographical dispersion of the Bulgarian Revival literature which has been published not only in the nearby Christian countries in Eastern and Central Europe but also at such distant points of the world as New York, London, Moscow, etc. This diversity of locations in the presently developed digital analytical repertoire will be organized and provided to the user in the form of a geographic information system offering bibliographic and bibliometric information. Using a geographical map of Europe, the user will be able to make inquiries on the volume and nature of the literary production in each settlement through the hyperlinks in the database. The team from ULSIT has experience in linking bibliographic and geographic information resources [8].

The problem with the language is related to the lack of established literary norms and the variations in the spelling of different realia reflected in the bibliographic descriptions. The de visu principle used in the Bulgarian classical bibliographies implies that the bibliographer records what he reads in the book. Thus, for example, the capital of the Ottoman Empire - Istanbul can be found in the printed books from this period in variations as: Konstantinograd, Konstantinopol, Stambol, Tsaregrad, Tsarigrad, etc. The geographic Information system can solve the search issues, but in case of an attempt for analytical extract from the database, the delivery of complete information will be impossible. Therefore, the project envisages the development of correlation tables of the personal names, titles and toponyms that will ensure maximum accuracy of the response.

Another major problem with the classical printed bibliography is the issue of the arrangement and organization of the information arrays. The first serious bibliographic work on the theme of the Revival book - *Bulgarian Literature for 100 years 1806-1905* - by Alexander Teodorov-Balan is criticized for its alphabetical order, which takes away the opportunity to get a real idea of the historical development of the Bulgarian literature [9]. Valery Pogorelov approached the abovementioned bibliography chronologically, but the disadvantage here is that the reader can not get analytical information about a number of other elements from the bibliographic description. Therefore, in the 50s of the 20th century, the team of Manyo Stoyanov at the National Library "St. St. Cyril and Methodius" has been working on an analytical retrospective bibliography that would reveal information on all aspects of the bibliographic record [10]. This scientific work is a real achievement in the printed bibliography. However, due to the large amount of references and links in it, the bibliography is very cumbersome. For example, if the reader wants to see who from the city of Kotel donated money for books, he can use the sponsors section and find the settlement in "K" following the alphabetical order. But in order to find the books in which there are donors from Kotel, the user has to check 69 book entries in the main

array of the large two-volume edition. And vice versa, if the reader goes to a particular book with donors, for example 977 "The History of Alexander the Great", he has to check cities №: 561,145, 892, 770, 1051, 406, 1058, 201, 417, 463, 494, 758. 666, 973, 191, 768, 778, 864, 962, 964, 845, 681, 879, 893, 854, 841, 556, 908, 876, 507, 680, 807, 144, 730, 925, 726, 1022 in the geographic index. And although Stoyanov's two-volume edition is transformed now into a searchable PDF file, working with it is quite difficult.

3   RESULTS

The new bibliographic online product will be founded on a database which has options of combined search in a different element of the bibliographic description both vertically and horizontally. It contains the obligatory elements of the bibliographic description and additional information about the material aspects of the book (type of font, details about the supplements to the edition, link to a visualized object, etc.). The database includes references to the main bibliographies for the period and to the electronic product of the National Library "St. St. Cyril and Methodius". The entries of the bibliography can be automatically arranged on each element of the bibliographic description. For this purpose, bibliographic information is transferred from classical bibliographic products. The bibliographies of Balan, Pogorelov, Stoyanov and Nikolay Teodosiev [11] are compared simultaneously together with a double using of the de visu method in an excel table with columns trying to reflect in details the characteristics of the Bulgarian Revival Book which, as we have already mentioned, is significantly different from its European contemporaries. The following fields and elements of the bibliographic description of the books are included in the table: title and authors, publishing data (sequence and characteristics of the edition, place of publication, year of publication, printing house), physical features, illustrations (typographic decoration, tables, portraits, maps), information concerning the series, remarks, etc. Important additional information is also included as type of the font (cyrillic, civic Russian, greek, latin, note) and related persons (patron, sponsors). The indexes according to the Universal Decimal Classification and the subject headings corresponding to the titles are also indicated here. The visualization of the bibliographic array through an internet based platform is planned for the second stage of the project (2018/2019).

In addition to removing the shortcomings of the old bibliographies caused by the characteristics of the paper environment, the electronic product is designed to give new opportunities to the users. The information retrieval system will provide: information in the horizontal and in the vertical table structure of the database; chronological order of the entries (wholly or partly); alphabetical order of the entries in title (wholly or partly); search by subject heading; analytical information about other book features (volume, size, supplements, etc.). The capabilities of computer and information technologies allow combination of the basic approaches to arranging the bibliographic entries. The option for custom search will facilitate and expedite the handling with the bibliographic arrays. The new resource will be searchable in each element of the bibliographic description in the order that corresponds to the interests of the user. There is also an opportunity for bibliometric visualization according to the information needs. An option is set for the user to supplement and adjust the database and the bibliographic descriptions under special administrative control. This is related to the possibility for personal review of the title pages and the colophon of the books. In order a maximum purity of the bibliographic information to be achieved the array will be linked to the digitized books presented in the catalog of the National Library "St. St. Cyril and Methodius". Such integration of existing and new bibliographic and digitized resources will significantly facilitate the scientific and public interest in the Bulgarian Revival literature.

Since the year is often given in Cyrillic rather than in Arabic numerals, sometimes from the creation of the world, a calculator is provided for recalculating Cyrillic in Arabic numerals (dates from 1500 to 1900). Pressing the HTML element button starts a function that creates an object of JavaScript class (CyrillicYearConverter). The object performs the method "convert number" checking whether the number is a numeral. If it is - a method is applied that converts from Arabic to Cyrillic. If it is not – the method converts from Cyrillic to Arabic and it returns a result as a text. There is also a similar currency calculator to measure the currency values of the Bulgarian book, which is valued in many different currencies in the period 1801-1878.

4   CONCLUSIONS

The ultimate goal of the project is the development of a modern bibliographic online product to represent the Bulgarian Revival literature in the period 1800-1878. It will be built upon the bibliographic

experience accumulated in Bulgaria combined with the achievements of the information retrieval systems. The development of a methodology, testing and elaboration of information retrieval system which contains bibliographic information about the Bulgarian books issued from the beginning of 19th century until the Liberation of Bulgaria will facilitate the public access to this information and will reduce the time of processing the information in the humanities and social sciences. This will contribute considerably for the modernization and the accelerated development of such fields as general and cultural history, history of literature, book history, bibliography, library science. The elaboration of bibliographic database based on the principles of information retrieval systems and geographic information systems has a fundamental character for the development of the Bulgarian science and at the same time uses innovative methods, leading to sustained development of the research in the humanities. This will increase the scientific interest in Bulgarian studies.

ACKNOWLEDGEMENTS

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