

REVIEW

FOR A DISSERTATION PAPER TO BE AWARDED TO EDUCATIONAL AND SCIENTIFIC DEGREE "DOCTOR"

Field of higher education: 3. Social, economic and legal sciences

Professional direction: 3.5. Public communications and information sciences (Book studies, library studies, bibliography - digitization of cultural heritage)

Dissertation topic: ELECTRONIC ARCHIVING - CHALLENGES TO THE ARCHIVING SYSTEM IN BULGARIA

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Research supervisor: Prof. DrSc Tsvetanka Hristova Pancheva

Reviewer: Prof. DrSc Olya Borisova Harizanova

The present review is in connection with an order of the rector of SU "St. Kliment Ohridski" № RD-38-101/19.02.2024.

GENERAL PRESENTATION OF THE AUTHOR OF THE DISSERTATION

The author of the dissertation is Orlin Ljubenov Iliev - PhD student at the department of "Library Science, Scientific Information and Cultural Policy" (Faculty of Philosophy) in correspondence form of study. He received his secondary education at the Technical College of Mechatronics (Vidin). He teaches a bachelor's degree in "History" (Blagoevgrad, Southwest University "Neofit Rilski"). He obtained two master's degrees: first in "Law" (Blagoevgrad, Southwest University "Neofit Rilski"), and then in "Archives and Museums. Preservation of cultural heritage in the information society" (Blagoevgrad, Southwest University "Neofit Rilski"). Since 2019, he is a doctoral student (St. Kliment Ohridski University of Sofia).

Over the years, he went through a series of trainings to acquire knowledge and skills, including post-graduate ones.

His professional career is primarily related to the archives system: since 2007, he has worked in various positions at the State Archives – Sofia and is currently the head of the Digitization Department at the State Archives Agency.

GENERAL DESCRIPTION OF THE DISSERTATION

The dissertation has a total volume of 208 pages. The text is formatted in A4 format. The main scientific text has a volume of 181 pages. The work is structured as follows: introduction, four chapters, conclusion, used sources and literature, appendices.

The list of used literature contains a total of 173 sources, of which 57 are normative and strategic documents.

There are 7 applications in total.

The text is illustrated with numerous tables and figures.

The **topic** of the work is current and of interest both to the Bulgarian scientific community and to the system of archives and libraries. A similar development has not been realized so far and the work of Orlin Iliev can significantly contribute to the scientific research field.

In the **introduction**, the relevance of the chosen topic is argued, object, subject, goals, tasks, research hypotheses, the applied methodology, as well as a brief description of the structure of the work are defined.

The **object** of the dissertation is the experience of the Bulgarian archives system, specifically that of the State Archives Agency (SAA) - the institution responsible for the management and maintenance of state archives in Bulgaria. Special attention is paid to its functioning in a digital environment, as well as the role in building a model for electronic archiving (e-Archiving) in the country. (p. 5)

The **subject** of the study is the construction of information systems, digital archive, e-archiving for the management of electronic documents in the country. (p. 6)

The **main goal** of the research is stated in the abstract (p. 8) and it is as follows: "the presentation of a model for e-Archiving of valuable e-documents in the Bulgarian archives, through which to ensure an integral part of e-Government." Unfortunately, although the labour is expected to have one specific purpose, in this case a series of them is found. In addition, Orlin Iliev formulated some goals in the text of the dissertation and others in the text of the abstract. In the abstract, he described the main goal, additional goals, final goal (p. 8), and in the text of the dissertation he described the first goal, next goal, third goal, final goal (p. 6). The discrepancy in the defined goals is extremely unpleasant. After thoroughly familiarizing myself with the work, I accept as the main goal the one indicated in the abstract.

The **research tasks** are a total of eight and they are as follows:

1. To carry out a detailed study of the scientific literature covering the mentioned topic.
2. To analyse and examine the historical development of the archival system in Bulgaria, through the prism of automation and its information resources.
3. To determine and analyse the complex of factors influencing the development and improvement of archives in a time of almost unlimited technological possibilities.
4. To reveal the specific features characteristic of the technological environment in which electronic documents are created. As well as introduce working concepts used in the dissertation and their definitions.
5. To search for and highlight examples of the advantages and disadvantages in the implementation of e-Archiving, as well as in the creation of digital archives, by means of a summary and analysis of empirical data collected through an online survey from the Bulgarian archives in several national archives of the European Union (EU).
6. To study national and international documents plus practices for the long-term preservation of electronic archives and digitized collections of cultural heritage sites, analysing the strengths and weaknesses of the digitization of archival documents.
7. To conduct empirical research (surveys and online monitoring) in archives from EU member states supplemented by international national archives, their current legal framework and current policies.
8. To conduct empirical research (internal/public inquiries and online monitoring) in the DAA.

The **main hypothesis** of the study is that the development of technologies inevitably leads to the transformation of modern archives from analog to electronic ones, and digitization is one of the means contributing to this digital transformation. These are prerequisites not only for a change in the technological cycle and processes in the archival system, but also affect the foundations of the archival profession. It is changing, albeit slowly, as the foundations of the Archives institution change. (p. 8). In addition, 5 more working hypotheses have been formulated.

I did not find a formulated thesis in the text of the dissertation. Although a separate and accurate "Main Thesis and Research Hypotheses" (p. 9) was highlighted in the abstract, I did not find a thesis either.

The **research methodology** is based on several research methods: observation, search, synthesis and analysis, including multidimensional data analysis. The research position is also based on specific data from publicly available annual reports of the archive system. Empirical results from surveys, public or official inquiries and online observation of archival practice were used. (p. 9)

The **first chapter** is called "Archives in Bulgaria - history and contemporary development". It presents the development of the archival work in the period from 1878 to 2023. The content of this chapter is structured in four points, with conclusions drawn at the end. The structure is as follows:

- 1.1. History and regulation
- 1.2. Automation of archive processes
- 1.3. Information system of the state archives
- 1.4. Digital archive
- 1.5. Conclusions

From the text of chapter one, it is clear that points 2, 3, 4 essentially attempt to connect traditional processes in archival work and the gradual inclusion of information and communication technologies in them. This is in accordance with the subject of the work. This chapter traces the development of archival activities and the information systems that are introduced into the archival processes, as well as organizational, financial and management factors affecting the course of this development. It is particularly useful, especially for practice, that there are examples of automation in the Bulgarian archives and related international programs. Details of four information products created in the last five decades for the needs of the Bulgarian archives are described, and the processes of building a digital archive of the State Agency "Archives" are also traced.

The **second chapter** is called "Electronic government and the place of the archival institution in it" and has the following structure:

- 2.1. History and regulation
- 2.2. Vision and future prospects
- 2.3. Conclusions

In the second chapter, the normative provision of e-governance and e-archiving for the period 1972–2023 is disclosed. Here, e-government is presented in both national and European dimensions. The factors related to good governance, the construction and functioning of e-governance, the sustainability and minimization of public costs for e-governance, the utilization of unused resources, the formation of a shared environment (based on cloud technologies), the integration of Bulgaria into the European institutions, the implementation of interoperability, the current state of the labour market, etc. This chapter includes a lot of data from various sources ("Index of digital technologies in the economy and society" (DESI), "Global e-Government Development Index of the United Nations" (EGDI), the Global Digital Innovation Index, the Global Startup Ecosystem Index, etc.). This aims to outline the performance of Bulgaria in European and international comparative studies in areas related to the digital (digital) transformation of management, economy and society. Numerous normative and strategic documents were reviewed, which were systematized and visualized. This chapter is particularly useful for future research on the issue, but it can also be an aid in planning the future development of new practices in the archives system.

Chapter three is called "E-archiving". It is structured as follows:

- 3.1. E-document. Definition and main characteristics
- 3.2. System for e-Archiving of valuable electronic documents
- 3.3. Protection and storage of electronic documents
- 3.4. Online Access: Decisions and Implications
- 3.5. New professional competence for the archivist

3.6. Technological model of SEA

3.7. Conclusions

It was defined by the doctoral student as "the most important topic of the research - e-Archiving." (p. 94) It is stated here that the purpose of the third chapter is "to highlight the basic prerequisites and the ultimate necessity of its creation in Bulgaria, as well as to propose new hypotheses and future predictions for its development" (note - is meant e-archiving). I support the opinion of Orlin Iliev. I accept his conclusion that "the changes that have occurred in archival practice in the last decade are related to the much wider possibilities for optimizing the administrative service of citizens, state government and business with archival information and ensuring public access and use of stored documents through the application of modern communication and information technologies" (p. 144). I also support the opinion of the dissertation student that in Bulgarian document studies the topics of e-documents and e-archiving are still insufficiently researched and the dissertation significantly contributes to the understanding of the genesis and essence of e-documents.

The **fourth chapter** is entitled "E-services in archives as a consequence of e-archiving and digitization".

Its structure is as follows:

- 4.1. Types of services
- 4.2. Consumer Attitudes
- 4.3. Accessibility
- 4.4. Disclosure and advertising
- 4.5. Conclusions

In this chapter, firstly, the result of the historical review on e-services is described, from the review of a series of normative documents, accessible services accessible through the information system of the archives, the structure of this system and its different levels are presented, paying attention and ensuring accessibility. In addition, the process of establishing user attitudes is described (meaning how users of archival information react to the changes that have occurred in the Bulgarian archival system) by analysing the data from the archives' annual reports. The electronic services in the Bulgarian archive system are presented with their specific connection with e-documents and e-archiving. The chapter examines the types of services, presents data on user attitudes, new accessibility tools, means of publicity and advertising. The question of how the application of new technologies has changed the archivist's profession in the last decade is also raised. And this chapter can serve for future research on the issue, but also in the activities in the archives system.

In the **conclusion**, Orlin Iliev shares general reflections on various issues - directly related to the topic or problems interesting to him. It indicates a main conclusion of the research on the subject, namely that technological solutions aimed at ensuring and improving access to archival information should be based on a study of the skills, expectations and requirements of the new type of user in the information society (p. 181). According to the dissertation, standardization should be placed first, which is a basic prerequisite for the multiple use of available technologies, solutions and knowledge (infrastructure, applications, solutions, licenses and technological means). (p. 181) Unfortunately, in the conclusion I did not find a reasoned statement that the goal was achieved, that the research tasks were fulfilled, that the hypotheses were proven or not proven. However, given the introduction, I can conclude that the research objectives have been met.

As I already mentioned above, there are **7 applications** available in the paper, namely:

- Appendix 1. Table with comparative data by reported indicators.
- Appendix 2. Chronological section of the automation in the archives.
- Appendix 3. Acronyms used in Bulgarian.
- Appendix 4. Acronyms used in English.
- Appendix 5. Technological definitions.

- Appendix 6. Definitions of levels of e-services in DAA.
- Appendix 7. General assessment of archivists' attitudes.

They are relevant to the dissertation as additional argumentation and illustration but can also be used for future research.

In summary, the dissertation is on a current topic and significant for research directions and practice.

EVALUATION OF THE AUTHOR REFERENCE TO THE DISSERTATION PAPER

As I have already indicated above, an abstract is provided for the dissertation work. His test is 39 pages, A4 format. It is structured as follows:

- I. General characteristics of the dissertation work
 - Relevance and importance of the problem
 - Object and subject, goals and tasks of the research
 - Main thesis and research hypotheses
 - Research methodology
 - Limitations of the study
- II. Structure and content of the dissertation
 - Dissertation structure
 - Dissertation content
- III. Conclusions
 - Dissertation Contributions
 - Publications on the topic of the dissertation

The content of the abstract reflects and presents the dissertation work sufficiently, but there is a discrepancy - regarding the purpose of the work, regarding the main thesis (which in fact does not exist) and the research hypotheses. In this part, the abstract (pages 8-9) must be corrected and reflect the work correctly.

PUBLICATIONS ON THE THEME OF THE DISSERTATION

The author of the dissertation, Orlin Iliev, has listed 7 publications on the subject. Of these, 6 were published in the period 2021–2023; 2 are authored articles and the rest are published reports; the seventh is a published co-authored report (2012). All publications are on the topic of the dissertation.

DISSERTATION CONTRIBUTIONS

In the abstract, Orlin Iliev has indicated the following contributions to his work:

1. Carrying out a comprehensive analysis on the development of the automation of the archive system in Bulgaria, with emphasis on the challenges that this process has generated over time, both nationally and internationally. The historical development of the Bulgarian archives, from their establishment to their transformation into "digital" ones, is covered. The focus is mainly on the 21st century and the results achieved in the creation of information systems, digital platforms, websites, etc. It is supplemented with graphic and illustrative material to aid visualization at selected moments.
2. Carrying out a comprehensive analysis and outlining problematic and weak points related to the implementation of a new technological model for management and access to electronic documents, as well as the influence exerted on the development of the central government and the administrative organization of the document circulation in them. Various technological aspects of the future implementation of the electronic archiving model are explored. Various practices in the field of

digitization, e-Archiving and access to cultural and historical heritage stored in state archives have been studied, summarized and analysed. The overview includes a number of normative, strategic and internal institutional documents. Various statistical data - graphs and tables are provided to reveal specific and interrelated actions in the above mentioned areas.

3. Deriving the dependence between eArchiving and the change in the paradigm of the archival institution and the archival profession, which is a new moment in the research field.

4. A study of the international practice was carried out, which significantly helped the dissertation to develop his own theoretical-applied model for the construction of e-Archiving in Bulgaria. The detailed analysis has also outlined the scientific fields of social sciences and humanities that will be subject to these technological changes.

5. Disclosure of basic technical concepts related to the topic of study. All of them are systematized in a terminological Bulgarian-English dictionary. For its preparation, the two volumes of Microsoft's "English-Bulgarian Interpretive Computer Dictionary" were used, or more precisely, its revised fifth edition from 2005. It reflects both archival terms and completely technical ones. Some of them are related to the implementation of a new technological model for management and access to electronic documents, which the dissertation brings for the first time in the Bulgarian scientific and information space.

The contributions proposed by the dissertation student are not correctly formulated.

After thoroughly familiarizing myself with the work, I highlighted the following scientific contributions:

- Theoretical

1. For the first time, the step-by-step development of the automation of the archives system in Bulgaria has been studied, described and systematized with an emphasis on the challenges that this process has generated, and a chronology of the stages of automation in the archives has been created.

2. Through analysis, problematic and weak points related to the implementation of a new technological model for access to electronic documents of the archives have been outlined.

3. For the first time, various practices in the field of e-archiving, digitization and access to documents stored in archives in the country have been studied and analysed.

- Practical-applied

1. Systematized basic technical concepts and processes related to the subject of research are useful for archival practice.

2. The change in the working conditions of archivists, the need to acquire new knowledge and skills to achieve a balance between traditional work methods and those in new technological conditions is justified.

CRITICAL NOTES

Overall, the paper has significant achievements, but I have the following critical comments (presented here briefly and in addition to those mentioned above in the text of the review):

1. In many places in the text, spelling and other technical errors were made, which should be corrected.

2. The aim of the dissertation must be formulated - unambiguously and unambiguously. Now, as I mentioned at the beginning of the review, several goals are proposed, and different ones in the dissertation and in the abstract.

3. Non-read sentences are found in many places in the text. Full editing should be done for clarity and accuracy.

4. The main problem of the study, already raised and commented on during the examination of the work by the faculty council, has not been removed. It is about the lack of stated/described/outlined limitations of the research given the wide scope of the issues and the questions that the dissertation student himself poses and tries to describe, reveal, explain, summarize.

CONCLUSION

After thoroughly familiarizing myself with the content of the dissertation, I can conclude that it meets the statutory requirements for obtaining the educational and scientific degree "doctor", despite the critical remarks. The authorship of the dissertation is indisputable. Sufficiently significant contributions have been achieved through the dissertation research. The minimum requirements for awarding the educational and scientific degree "doctor" have been met (55 points from articles in Bulgarian scientific publications with scientific review, which appear in the National Reference List of NACID).

I recommend that the dissertation work on "Electronic Archiving - Challenges to the Archive System in Bulgaria" with author Orlin Lyubenov Iliev be awarded the Educational and Scientific Degree "Doctor".

04/04/2024
Sofia

Reviewer:
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