

SCTCMG 2021**International Scientific Conference «Social and Cultural Transformations in the Context of
Modern Globalism»****DIGITAL ARCHIVES OF FAMILY MEMORY: CREATION AND
FUNCTIONING IN EDUCATIONAL SPACE**

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Abstract

Computing tools and the use of digital sources and resources is a daily and necessary practice in modern academic and educational activities. This paper provides a brief overview of the project of the preparation and publication of essays-memoirs about relatives, whose fates are related to the events of the history of the Soviet state in the XX century. The territorial framework of the project is limited by the North-Western Caucasus, but the authors do not see any significant limitation in this aspect. The flashbacks contain a large photographic and other documentary material from family archives and funds of local and regional archives. The work on the memoirs was carried out directly by students and teachers of universities in the region under the guidance of professional historians who advised on ethics and methods of work with historical sources and collection of oral history data. The methodology and technical capacities of digital history were aimed at the integration of a complex of memories into a family memory archive. Thus, we open access to it for researchers and everyone who wants to get acquainted with personal sources. In addition, the technologies described in the paper, influenced the opinion of the authors on the preparation and presentation of historical sources of personal origin to a different extent. In this paper, the authors try to sum up the results in order to provide starting points for subsequent similar projects. In general, we try to understand the significance of the digital turn for historical science.

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Keywords: Digital history, digital archive, memory, family, museum, information technology



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1. Introduction

Nowadays due to significant changes in the field of technology, which in turn affected all the aspects of human life, including science, education, culture, there is an acute issue of their mutual integration. History as science and an academic discipline, being in the epicenter of digitalization, should be sensitive to new technologies, their capacities in the pedagogical and research process, certainly not deviating from the academic nature of research practice. Both teachers and students need a synthesis of technical and historical thinking, the ability to select, process and present digitized historical source material and products of analytical work.

Digital history has become a new field, opening up not yet defined range of opportunities for historians who innovate. However, it is already obvious that it is changing the profession of historian: new platforms for entering the public sphere appear, new IT terms, gadgets and widgets are being mastered, the pace of historian work is getting denser and faster, the amount of information that a historian needs to process and comprehend is increasing (Khut & Cheucheva, 2019).

First of all, digital history can be marked by three defining characteristics: new opportunities in the processing and presentation of historical archival materials, cooperation between professional historians and students of history, as well as new types of research projects, including those of an interdisciplinary nature. One of the most valuable aspects is the potential of networked historical sources that create capacious spaces in which users connect and discover the world of history (Lee & Molebash, 2014). Of course, there is still a community of conservative historians who passively deal with historical content in digital form, limiting themselves to browsing the Internet in search of literature and data. In addition to the consideration on why a particular collection of documents was selected for digitization and publication on the Internet, a historian must also be able to identify the changes and loss of context that occur when the collection is converted from analog to digital form. He also should have the ability to introduce complex historical arrays containing oral data, stories and documents from family archives into his research field (Romein & Kemman, 2020). It is these groups of sources that can contain a set of micro-stories with unique factual and bright emotional material that helps to recreate complex, ambiguously interpreted historical events.

Moreover, in order to facilitate the routine work of the study of history, educators can design activities that enable students to use reliable historical resources on the Internet. In the context of a growing understanding of the best practices of digital history, a student can independently “produce” the historical source and make it available through the integration into the digital environment. Since digital historical collections can take not only archival forms. Therefore, the main focus of the present project, described in this paper, is to involve students in the process of the creation of a collection of memories and posting it on the Internet for subsequent use in educational and scientific purposes. In addition, the humanities can use the technologies in the educational process in order:

- to enable students to implement ideas of personal interest,
- to consolidate previous knowledge and knowledge of related sciences and not as a substitute for them.
- to develop an autonomous, creative and intellectual thinking (Calandra & Lee, 2005).

It is necessary to emphasize that the archives of family memory are not explained by the urge to collect the archives of various kinds, but are the standing points of memory, the expression of hope for its fixation, the preservation and embodiment of respect for history (Lapina-Karatasyuk & Rubleva, 2018) which most accurately reflects the concept of our work.

In general, the digital environment, where the search for information and the production of knowledge take place, not only provides convenient tools for cognition, but also leaves an imprint on knowledge itself, which becomes digital and reflects digital modernity (Artamonov, 2020). Therefore, the formation of an archive of family history with the participation of a young generation of non-professional historians, but personally interested in the production of new sources – memories, as well as with the involvement of technology, provides additional ground for reflection of a methodological nature.

2. Problem Statement

The studies of historical memory and oral history are among the most intensively developing areas of modern socio-humanitarian knowledge (Assman, 2014; Russian everyday life in the mirror of gender relations, 2013; Thompson, 2003). The inconsistency of their methodological guidelines does not exclude the continuity and interconnection between them. The revival of oral history is largely associated with a change in ideas about the object of historical research, with the inclusion of mental structures in the subject of historian study. In general it is connected with the actualization of the opinions of ordinary participants in the historical process for science. It is oral history that demonstrates that memory is the basis of history, which, in turn, as a science, determines the parameters of the interpretation of time receding from us.

A platform to combine the established traditions of historiography and promote the formation of a “memory map” of Russians can be “family stories” that combine oral history narratives with memorable rituals and socio-cultural frameworks of memory.

The explanation of this area of activity was our understanding of the role of university, similar to the principles of Ortega y Gasset (2005). University education opens up new horizons in the life of any person. The horizon is understood as a symbol of opportunities that are not realized by themselves, but are created by their labor, continuous improvement. In addition, the inclusion of oral history in the methodological support of educational activities is implemented by one of the tools for the modernization of education – the competence-based approach.

For a student performing work with the conditional title “family history” or essay-recollection, a whole range of possible prospects for cognitive and research activities opens up. Moreover, this work performs the most important educational function of familiarizing young people with the cultural and historical community of their people. At the same time, upbringing is not understood as the desire to shape oneself in the younger generation, to impose one's own belief systems, which Tolstoy (2018) called “the feeling of envy, elevated to a principle and theory” (para. 6). Education in this project is implemented through the use of a humanistic methodology of education and the development of the creative abilities of students, including their involvement in the development of information and

communication technologies, the knowledge and use of which opens up great opportunities for both processing and presentation of historical material.

Due to this significant and multifaceted, painstaking and scrupulous activity of collecting family stories, we participate in the development of a personality of a young person, without being imposed by unnecessary moral teachings and appealing to external examples.

A new interdisciplinary task for us was the solution of the issue of the optimal system of accumulation and placement of finished works on the Internet. In general, it became the starting point for the next stage of the study in cooperation with specialists in information and communication technologies.

3. Research Questions

This research began with the idea of the creation of a database of family stories prepared by students and teachers on the basis of knowledge accumulated by descendants about family history, varieties of fortune, careers, and personal relationships of their members. The basic method recommended by the curators of the project was interviewing of relatives, work with family photos and documentary archives, reference to the resources of museum and archival institutions.

A set of specific rules was established that relate to the object and subject of description, chronology and sources used. It was decided to limit the description of family history to the 20th century. Since most of our students were the representatives of various social and ethnic groups (Russians, Ukrainians, Armenians, Tatars, Circassians, etc.), traditionally living in the Krasnodar Territory, we got a wide variety of memories, impressions, reflections on the events of the last century in the region: revolutionary, military actions and occupation, repression, etc.

The respondents were family members: direct participants and witnesses of historical events significant for the fate of the country (historical facts of both the first and second order), memories passed from generation to generation were also taken into account.

For this project, the personal point of view of people – witnesses and participants in the events, their perception of the world, mental and emotional reactions and the evaluative nature of events were essential. The task was to record the personal aspect of the perception of reality by the respondents, whose documents, including personal origin, were analyzed.

It is obvious that people define “meanings” in different ways. They give sense in different ways even in the same words, metaphors, gestures. The difference in interpretations of the same event significantly increases the level of its assessment, saturates it with a large number of essential details. Thus, the stable thesis about a person's involvement in history develops into an argument about his position as an active and creative subject.

We singled out an essay or research project based on archival materials as a form of work. In the process of preparation, students mastered the techniques of oral history, the techniques necessary for interviewing of relatives and subsequent processing of the collected material. They learned to formulate questions correctly, highlight the dominants of the story, etc.

4. Purpose of the Study

The purpose of this study is to describe the results of the research and organizational activities of a group of scientists aimed at the formation of an archive of family memory, consisting of memories, oral history data and documentary archival materials. The stage of integration of the methodology of historical research and information and communication is the transfer of the formed fund of sources into the public space of the Internet.

5. Research Methods

During the project on the creation of a digital archive of private memory, the following methods of selection and processing of sources were used: historical-typological (the type of source was determined, ranking was made by the identification of essential features of sources) and historical-genetic (it allowed recording the nature of the interaction of an actor, his perception of the surrounding reality at the moment of what is happening (letters) and after the fact (memories)). Preparing the paper, the systemic method became the key method, which allowed considering the problem in its structural integrity, highlighting such an aspect as information and communication support for the life of the project at each stage of selection, storage and presentation of sources. The solution to this issue is of major functional importance for the further development of the project on the creation of a digital archive of private memory on the basis of an educational institution.

6. Findings

Due to the fact that the access of students to state archives is limited, we found a solution to attract museum institutions that have their own archives and conduct field research. The modern museum is an active subject of socio-cultural processes and transformations in the region. It is included in the educational and upbringing process of the younger generation. It works with various ages, social and ethnic groups – adults, challenged people, foreign citizens and representatives of Diasporas etc. Traditionally, a museum for higher education institutions is a platform for the visualization of certain topics in the disciplines of the social and humanitarian cycle, a partner in educational and charitable projects. A museum is always open for discussions and suggestions, all its programs and projects are formed in accordance with educational standards and the wishes of teachers and students. When visiting a museum, a student can get the first experience of working with authentic documents, consultations with specialists in the field of ethnography and history on the principles of the formation of collections, which is important for this problem – the specifics of the creation of personal (memorial) files of the inhabitants of the region. The internal and semantic space of a museum fits into the presentation component of the written “family stories”. In this complex of the areas of interaction between a university and a museum, the latter acts as a tool for the formation of national and regional identity.

In addition, the idea of a family as an “emotional unit” is a key resource for museums, where naturalized manifestations of family ties can be used to reinforce special messages to visitors, in particular, to personify the event outline of a historical process. However, both a family and its emotions

are historically conditioned products, not universal ones. The emotions that museums evoke in visitors through family symbol are social and cultural claims, mechanisms for the construction of intergenerational ties, understanding unity with their ethnic and social group (Barclay, 2020).

It is necessary to note that today the experience of interaction with regional and municipal museums has already been accumulated Novorossiysk Historical Museum-Reserve, Museum of Local Lore of the Maikop District named after Zhernoklevs spouses, National Museum of the Adyghe Republic and others).

In general, the research work of students is one of the most important means to improve the quality of training and education of bachelors with higher professional education in the field of business informatics, management and economics, who are able to creatively apply the achievements of scientific, technical and cultural progress in practice, help to master the methodology of scientific research and gain research experience.

Within the framework of this project, students are active actors in the entire research algorithm: from interviewing, searching for documents to processing and presenting of research results. In our opinion, this project is a living and open organism, developing and supplemented by new ideas. Further prospects of the project are presented by us in the interaction with specialized sites for the publication of works, their subsequent use in the preparation of scientific articles.

As an initial publication of the works of students and teachers, the authors of the project decided to post them on the website of Novorossiysk branch of Financial University under the Government of the Russian Federation, accompanied by a headline explaining the goal and objectives of the project. The memoirs were posted on the website of the educational institution in the section reflecting the reports of student scientific activities.

During the accumulation of an array of information, the inevitable problem of its storage and use arises. Information has the ability to be relevant and available at a certain unit of time. Internet search systems are built on this principle. In order to optimize search queries, website promotion technologies are used and a developer is obliged to correctly build a database that stores an array of information. A user, intending to find information on the search for family history, uses a primitive query by a surname of a relative. The recovery of information on “family memory” leads to an excessive amount of information, but most of the search result is information on single-root words. Usually the received information is not excessive for a user. The search and the result are of probabilistic nature in obtaining accurate information. Upon request, all search systems do not give the sites that contain useful information; they give those that have a lot of useless text, a lot of unnecessary pictures. Their work is limited not to finding information, but to advertising. Therefore, other, more useful search systems are needed.

For modern search systems, the priority tasks are advertising pages as search results. The relevance of information depends on the coincidence of keywords in the request and on the page of the site or other piece of information. The author of the information must follow the principle of “Intelligent indexing of information”. For information containing a text array, it is necessary to develop mechanisms for the identification of the uniqueness of the collected information.

For correct and precise search query, it is necessary to build the data storage logic. Modern storage models are based on the principles of storage and management of big data. Historical information should be an array of structured information, processed into the BIG DATA storage logic.

Big Data management cycle is shown in Figure 01.

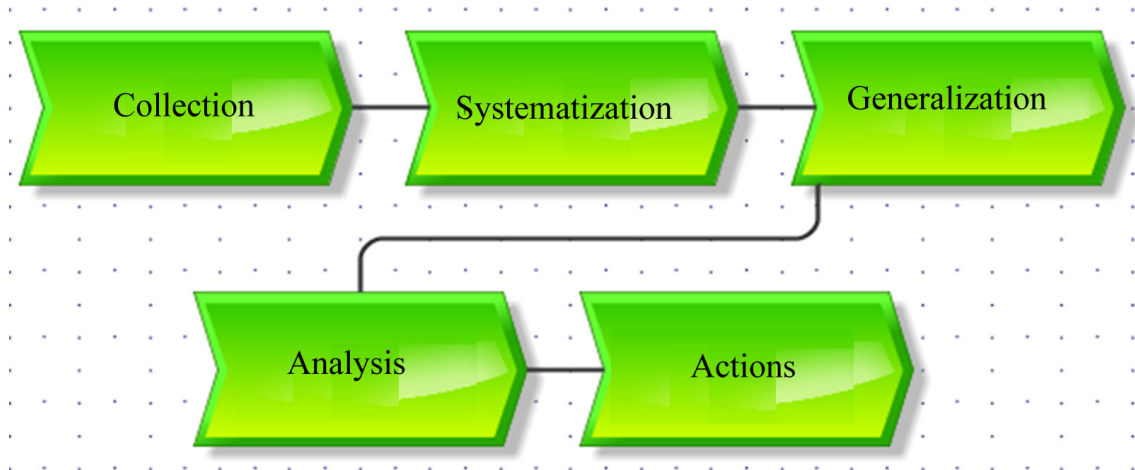


Figure 1. Big Data management cycle

The figure shows that the first stage of the cycle is the collection of data, followed by their systematization and generalization. Then the data can be analyzed for a specific task.

Big Data can be a good data preparation tool not only for the analysis of the structure of the collected information, but also for the implementation of user feedback in search queries. According to the McKinsey Institute report “Big data: The next frontier for innovation, competition and productivity”, Big Data refers to datasets that are larger than typical databases (DB) for entering, storing, managing and analyzing information.

IT architectures of search systems have hundreds of thousands of servers hosted in multiple data centers around the world. Effective implementation of MapReduce is impossible without efficient organization of data storage on a cluster system. Google uses the Google File System (GFS) for this purpose.

In modern environment, organizations create a large amount of unstructured data such as text documents, images, videos, machine codes, tables, etc. All this information is stored in many repositories, sometimes even outside a company. Companies may have access to a huge array of their own data and lack the necessary tools to establish relationships between this data and draw meaningful conclusions from it (Figure 02).

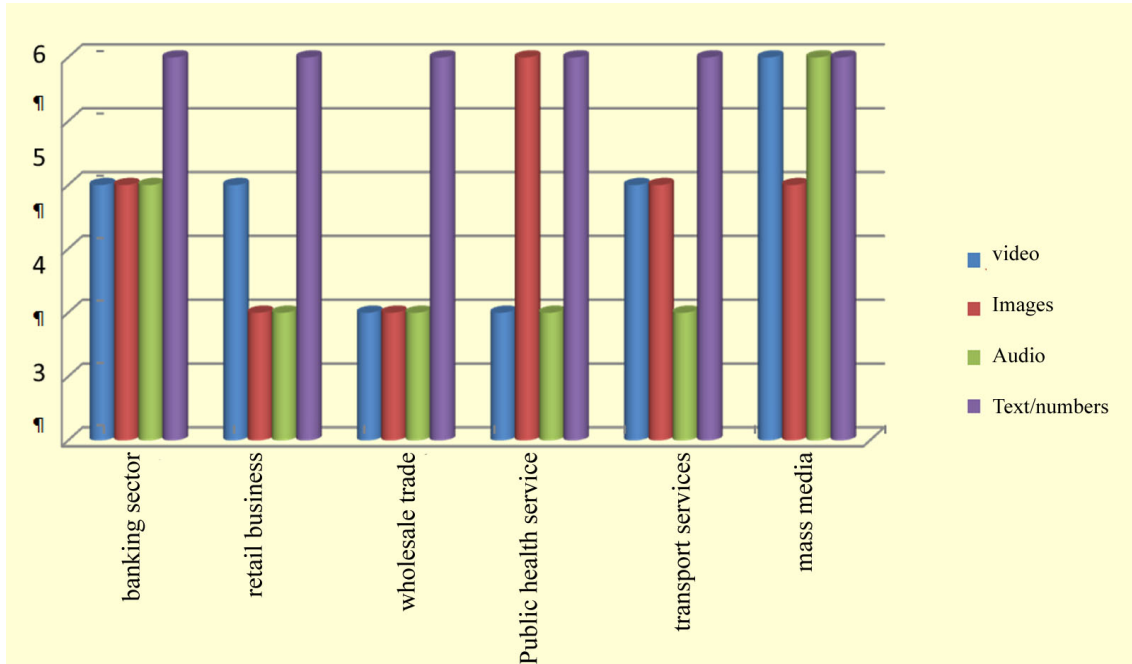


Figure 2. Prevailing types of information for different fields of activity

The methodology and tools for the work with structured data have already been created. It is a relational data model and database management system. However in modern conditions, enterprises need to process large amounts of unstructured data of various types (Figure 03) and the old methods are not quite suitable for this work.

The growth rate of the Russian Big Data market is at least 50 % per year.

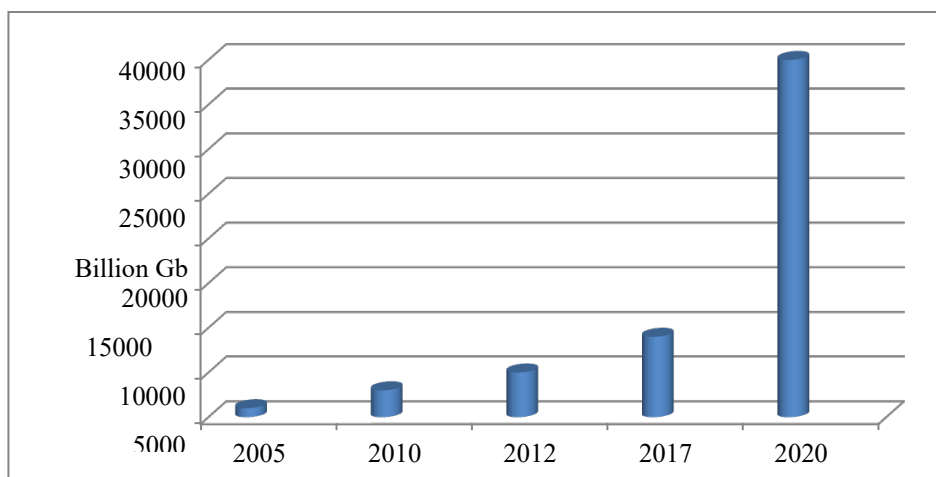


Figure 3. Total digital data in the world

Over the next 7 years, the amount of data in the world will reach 40 ZB (1 ZB = 1021 bytes), which means that for every inhabitant of the Earth there will be 5200 GB of data available.

7. Conclusion

As an observer or subject, a person is always included in the dynamic context of the historical process. A person is formed under the influence of key historical events of his time, regardless of whether he shares certain beliefs, attitudes, worldviews, social values, etc. with other representatives of his stratum. Therefore, we consider the accumulation of family histories not as a collection of disparate and multidirectional individual memories, but as a wide horizon of generational memory, on which the forms of the development of individual experience depend. Indeed, the life experience of mankind is harmonized by the memory of social generations. Activities aimed at bringing people who created and lived history to its center, giving them the opportunity to speak out loud, also have a great pedagogical and educational effect.

In turn, modern search systems offer cloud data storage. In order to get a clear answer to a request, it is necessary to segment information it by relevance before posting. Museum websites are currently the only databases containing information on obtaining information: “family memory archive”. Digitized material, which is important for humanity and for a particular family, is not reflected on the Internet. Therefore, there is a problem and the need to develop a single educational platform linking all data banks of archives and museums. The model for the storage of this volume of resources useful for humanity can be BIG DATA technology.

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