

ABSTRACT

Through culture, social learning is passed on from generation to generation, and knowledge (and use) of this experience allows the group to move forward. Culture is an important part of social relations in society and has the same status in society as the economic, political, or legal system. The protection and appropriate presentation of tangible and intangible cultural heritage objects is a natural part of every cultural society. An inseparable part of these efforts should be the education of selected groups of society leading to an increase in cultural literacy, in a narrower context to an increase in the so-called cultural heritage literacy. The current education system in Slovakia is still looking for trajectories to lead students at all levels of education to the ability to find the necessary information, orient themselves in it in the context of broader contexts, analyse, synthesize and as a result apply it in practical life. The essence of education in the field of preservation and presentation of cultural heritage is the connection of current knowledge with historical experience and the potential of modern times, the aim is to acquire knowledge, skills and competencies leading to the creation of innovative concepts in the presentation of cultural heritage. The presented study provides a partial topic about the possibilities of symbiotic development of cultural, media and information competencies necessary for successful operation in the local and global environment, while we consider the combination of these literacies to be a particularly important goal of education. In the article, we perceive cultural (heritage) literacy in higher education as an important concept in teaching and we present a case study that shows the successful integration of this strategy into the area of higher education. The present study represents a specific initiative aimed at increasing cultural (heritage) literacy in the university environment. On the example of the selected study program, we point out the so far little developed possibilities of implementing cultural (heritage) literature in education and show a possible approach to developing similar considerations. The study is designed as a theoretical-practical output providing analytical and critical reflection on related concepts, including a synthesizing view of them. The theoretical part is followed by research and a search for facts that provide an empirical picture of the implementation of cultural (heritage) literature in the process of the selected strategy of higher education. The symbiosis of certain theoretical reflections and concrete / real practical experiences forms a knowledge base of new quality, which can be further subjected to comparisons in different contexts of perception.

KEY WORDS

Cultural Heritage. Literacy. Cultural Literacy. Heritage Literacy. Mediamatics.

1 Introduction

The precise, universally valid, and unchanging definition of literacy is very difficult to grasp for several reasons – literacy is developed in accordance with the cultural, educational, and technological development of society. We perceive it as a complex competence that is being formed and constantly supplemented with new dimensions, with the development of culture, society and, more recently, mainly because of the development of technology. In a culturally developed society with a well-developed education system and technologies, we consider literacy (in its basic sense – functional literacy for the purpose of integration in society) to be generally accessible to every person and "in this sense it could be stated that every person from cultural landscape with the obligation to attend school is literate." From the available theory we know several types of literacy, we list those that are important in the context of the presented topic, are interconnected and lead to the "complex competence" of a person enabling his/her integration into society. The framework for the relevant types of literacy is functional literacy – it indicates abilities applicable in everyday life, closely linked to self-education. From the point of view of the presented topic, several types of literacy are relevant:

- Informative the ability to search, summarize, process, use and store information. It is
 also closely related to computer (digital) literacy the ability to use hardware and software
 computer equipment and other available communication and information technologies.
- Media the ability to use the media correctly to obtain, critically evaluate, create, and present media information.
- Cultural the ability to actively participate in the production and interpretation of cultural values, to perceive and create cultural values. It is related to literacy in the field of cultural heritage.

We can look at the general category of literacy from different points of view – cognitive, developmental, educational, sociocultural... From a socio-cultural point of view, Zápotočná² always understands literacy as cultural literacy and inserts it into the mutual relationship of lifelong literacy building as a way of active self-education and acquisition of one's own cultural identity. Important is the fact that the process of acquiring cultural literacy is carried out in an irreplaceable chain of authentic social and communication conditions as well as individual situations. At the same time, the author points out that with the advancing computerization of society and culture, many more have increased and are currently being used, whether e.g., technological literacy, internet, or multimedia literacy ("media"/ "multimedia-literacy"). Alternatively, there is talk of civilization literacy, electronic literacy (E-literacy; "electracy"), "online literacy", "new" or "second" literacy, or even "post-literacy".

Cultural literacy, as an element that favours the knowledge context needed to identify the essential aspects of any topic, comes to the fore with partial elements of "complex competence", paradoxically, such a perception of literacy is less talked about compared to other types of literacy. The term "cultural literacy" has become a subject of interest to academics since E. D. Hirsch's publication entitled Cultural Literacy: What Every American Needs to Know (1987). It represents an interesting concept of literacy, which he considers "more than just the actual mechanics of reading. Literacy means understanding what you read and to understand what you read you need to have the appropriate background knowledge". He criticizes the formalistic

¹ HRDINÁKOVÁ, Ľ.: Mediálna a informačná gramotnosť – úvod do problematiky. Bratislava: UK Bratislava, 2013, p. 4.

See: ZÁPOTOČNÁ, O.: Kultúrna gramotnosť v sociálno-psychologických súvislostiach. Bratislava: Album, 2004.

³ Ibidem.

Core Knowledge Foundation (producer) (1993). ABC News Solutions (1996) and WVEC-TV The Uncommon Classroom. According to: SHAMSHAYOOADEH, G.: Cultural Literacy in the New Millennium: Revisiting E. D. Hirsch. In International Journal of Humanities and Social Science, Vol. 1, No. 8, p. 1.

theories of literacy that focus almost entirely on formal reading skills without paying much attention to the background knowledge or schema (plural: schemata) that students need to know before they can comprehend a given text. Hirsch's main objective in the book is to define cultural literacy and to expound the core cultural knowledge that American students need to attain to function productively in the society, which he terms "core knowledge." As such, this shared knowledge that is referred to as cultural schema, is in Hirsch's view, indispensable to academic and professional success. (...) Hirsch does not solely focus on substantive (i.e., content) knowledge; indeed, he advances the argument that both "procedural" and "substantive" knowledge is needed to comprehend a given text with some level of complexity. The procedural knowledge would be the overall reading skills that readers bring to the reading of a given text, whereas substantive knowledge is comprised of the content-based schemata, that is, the background information (cultural, historical, political, etc.) that would facilitate the reading process." The work was received with embarrassment, provoked controversy in both educational and academic circles, but continues to resonate as key literature on the subject and as key literature for various attempts to put into practice.

The starting point for the specification of cultural literacy is culture as a complex of all specific values, ideas, customs, objects, arts, human activities, but also institutions, traditions, beliefs, and lifestyles typical of a certain social group. Through culture, social learning is passed on from generation to generation, and knowledge (and use) of this experience allows the group to move forward. Culture is an important part of social relations in society and has the same status in society as the economic, political, or legal system. At the same time, it is a cognitive, symbolic, operational, and institutional system that fulfills several functions in society:

- a) Through culture, one understands the world and expresses the content of one's consciousness (expressive function)
- b) By passing on the cultural tradition, the social group is preserved for the future (collective consciousness function)
- c) Through culture, the social group integrates as a whole (integration function)
- d) Through culture, a social group differs from others (differentiation function)⁶

Mistrík states that "man is thus a product, a creation of a certain culture and at the same time its co-creator, the one who changes this culture. By transforming one's own culture, one creates one's own activity". We have the "self-creation" and "self-improvement" of man based on cultural tradition and based on its transformation. In fact, there is no "natural" environment for a person that is not influenced by cultural tradition and that a man does not change in any way. Everything around it is determined by a specific temporal and spatial situation. The "natural" environment of man is the historical and human environment. Behind this human self-formation is culture." Culture can be understood and studied from different perspectives. In our understanding, it is a combination of historical, social, economic factors and values that influence people's behaviour and communication. At the same time, we believe that education today must lead to the acquisition of cultural (heritage) literacy as the cultural core of the cultural and creative industries, which is talked about less often than other types of literacy.

The current "natural" human environment is associated with building a modern digital society. Digital literacy is intensively mentioned (also in connection with the material and technological background), but also with the abilities and skills of individuals to work with information sources and information, to evaluate information sources in the context of their experience, previous

⁵ SHAMSHAYOOADEH, G.: Cultural Literacy in the New Millennium: Revisiting E. D. Hirsch. In *International Journal of Humanities and Social Science*, Vol. 1, No. 8, p. 273.

MISTRÍK, E.: Ciele a obsah multikultúrnej výchovy a vzdelávania pre Štátny vzdelávací program ISCED 0 a ISCED 1. Bratislava, 2011, p. 36. [online]. [2022-02-25] Available at: https://www.statpedu.sk/files/articles/dokumenty/statny-vzdelavaci-program/mkv_isced_0_1.pdf.

MISTRÍK, E.: Kultúra a multikultúrna výchova. Bratislava : IRIS, 1999, p. 12.

knowledge ... During the information season, we have access to a huge amount of information, but some recipients of information do not know how to adequately understand, process, and use it to solve problem situations. The concept described by Hirsch remains relevant in this context as well. An aspect denying the mechanical reception of information resulting from a lack of knowledge of related aspects, including cultural, historical, social, and political contexts can be considered particularly important. The importance of media literacy as one of the most basic skills of the 21st century is intensively spoken of as a strong resonant topic (following on from digital literacy). It is characterized as "the ability to access, analyze, evaluate and communicate messages in various forms".⁸

Thus, media literacy can be described as a sum of abilities and skills that allows us to critically assess and use the media responsibly. This set can be summarized in three basic areas – access to the media, their evaluation, and analysis and extended by the aspect of autonomous creative activity. "Nowadays initiatives in the fields of media literacy such as youth participation, teacher training and curricular resources, parental support, policy initiatives, and evidence base construction - are very successful in growing the level of the critical thinking of the participants. However, there are still a few areas which need to be guided."

While various concepts of media literacy are relatively richly developed, discussed and gradually implemented with the education system, the concept of cultural literacy is less resonant (for example, in the Slovak area this topic is mentioned in the Objectives and content of multicultural education for the State Education Program ISCED 0 and ISCED 1), 10 despite the fact that the presentation of cultural patterns resonating in a given society and presenting a given culture in a modern media society takes place significantly through the media, not only through various cultural institutions (theatres, museums, galleries, cinemas ...), but also through different types of traditional and new media. "We often find that people (pupils, students, and youth) make their first contact with the traditions of their own region and nation through the media. It is associated with economic opportunities, workload, distances, and other causes. Part of media competence is the ability to know how to find the necessary information, evaluate it critically and use it in your life. The need to create your own media products is also being talked about more and more often. These media products may also relate to the transmission of cultural tradition: information about the cultural event; interesting facts from the cultural life of the selected community; information on how traditional holidays are celebrated in a certain region, etc. Some historical monuments that are under the auspices of conservationists or that have been closed for some time in connection with the reconstruction are also made available through the media. Modern media can create a simulated image of a monument that is incomplete or destroyed by the environment and time. These are just some of the opportunities the media offer us to spread the cultural tradition."11

The media provide information about values, attitudes and opinions that seem to be shared with others through media communication. As for the presentation of cultural heritage in the media, we can rely on the analysis of Hamar, who wrote on the subject of this topic that if he should talk about the current reflection of traditional folk culture in the media in Slovakia,

VRABEC, N.: Úroveň mediálnej gramotnosti mladých ľudí na Slovensku. Bratislava: IUVENTA, 2007, p. 1. [online]. [2022-02-25]. Available at: https://www.iuventa.sk/files/documents/7_vyskummladeze/spravy/davm018/zver_spravadavm018.pdf.

See: KAŇUKOVÁ, N.: The Promises, Challenges, and Futures of Media Literacy. In Media Literacy and Academic Research, 2018, Vol. 1, No. 2, p. 1-2. [online]. [2022-02-25]. Available at: https://www.mlar.sk/wp-content/uploads/2019/01/MLAR_2018_2_NEWS_4_The-Promises-Challenges-and-Futures-of-Media-Literacy.pdf.

See: MISTRÍK, E.: Ciele a obsah multikultúrnej výchovy a vzdelávania pre Štátny vzdelávací program ISCED 0 a ISCED 1. Bratislava, 2011. [online]. [2022-02-25]. Available at: https://www.statpedu.sk/files/articles/dokumenty/statny-vzdelavaci-program/mkv_isced_0_1.pdf.

¹¹ JALAL, A.: Media Literacy – Prerequisite for the Spread of Cultural Traditions. In *Constantine's Letters*, 2013, Vol. 6, No. 6, p. 7.

critically evaluate the media space that traditional folk culture receives, as well as the quality of the filling of this space, he would have to state very quickly that the media, for example, do not reflect or directly ignore traditional folk culture and folklore. In the field of print media, these are mostly agency reports, interviews with ethnographers, articles on rural tourism and traditional gastronomy. In connection with this issue, it should be recalled that this phenomenon is not at all atypical for the media and the present. "Media Darwinism" has been observed in all spheres of life in the media space for a long time, so it is no wonder that reports of traditional culture are reduced to emotionally tuned contributions with low informational value. In this context, we add another statement reflecting the words about the current state of the mainstream media in relation to other facts of social reality, specifically the current topic of the pandemic crisis: "We also need to think about the media and their role in this crisis, which has also unmasked the low level of one-color journalism. There is a noticeable increase in the popularity of so-called alternative media and a decrease in the level of credibility of the mainstream." In the level of credibility of the mainstream.

"Media literacy is a critical skill, a subset of information literacy, that at this point in history is more important than ever. Students entering higher education generally receive information literacy instruction at the lower division level. However, the skills taught at this level are rudimentary and geared toward introducing students to scholarly and peer-reviewed sources. Conversely, students have relied upon more popular resources in K-12 education and may not have the evaluative skills to more responsibly consume, and ethically use, popular, news, and social media content. Current instruction methods silo instruction between scholarly and peer-review sources for academic use separately from media consumption in everyday life." 15

Cultural literacy as the ability to understand the signs, meanings and means of communication used by one's own social group culture and cultural literacy as the ability to use the signs and forms of one's own social group culture for self-expression and communication thus becomes a necessary part of training for university graduates who train professionals especially in areas of media and communication studies. (Of course, "in the combination of understanding the signs and forms of one's own culture with the ability to use them, cultural literacy is a means of involving one's own socio-cultural group. Without cultural literacy, one fails in basic communication with members of one's immediate environment to understand the culture of other social groups." 16 For these reasons, this literacy is relevant to everyone.

"Cultural literacy is as crucial for people's survival in the global and multicultural world as the ability to read, write or count. Fostering the culture of sharing knowledge across perceived boundaries will be a major challenge to the education system and professional life in the years to come."¹⁷

See: HAMAR, J.: Súčasná reflexia tradičnej ľudovej kultúry v médiách. In Problematika prezentace a medializace tradiční lidové kultury: sborník příspěvků z 21. strážnického sympozia konaného ve dnech 15. - 16. března 2006. Strážnice: Národní ústav lidové kultury, 2006, p. 108-116.

According to: PITOŇÁKOVÁ, S.: Tematika kultúrneho dedičstva v mediálnom prostredí. In Mediamatika a kultúrne dedičstvo: revue o nových médiách a kultúrnom dedičstve, 2016, Vol. 3, No. 1. [online]. [2022-02-25]. Available at: https://fhv.uniza.sk/mkd_revue/01_2016/01_2016_pitonakova.pdf.

YEC, J.: What Can Social Sciences and Humanities Offer in the Situation of Global Pandemic? Short Reflection on the Book The Human Rights Controversies and the Covid-19 Pandemic. In *Filozofia*, 2022, Vol. 77, No. 2, p. 128.

See: GROMBLY, A., ANDERSON, A.: Information and Media Literacy: Integrating Literacies Into Library Instruction. In *Media Literacy and Academic Research*, 2020, Vol. 3, No. 1, p. 1-12. [online]. [2022-02-25]. Available at: https://www.mlar.sk/wp-content/uploads/2020/04/1_Amanda-Grombly.pdf.

See: MISTRÍK, E.: Ciele a obsah multikultúrnej výchovy a vzdelávania pre Štátny vzdelávací program ISCED 0 a ISCED 1. Bratislava, 2011. [online]. [2022-02-25]. Available at: https://www.statpedu.sk/files/articles/dokumenty/statny-vzdelavaci-program/mkv_isced_0_1.pdf>.

SALO-LEE, L.: Cultural Literacy – An Aim of Global Education. In KAIVOLA, T., MELÉN-PAASO, M. (eds.): Education for Global Responsibility – Finnish Perspectives. Helsinki: Helsinki University Press, 2007, p. 75. [online]. [2022-02-25]. Available at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/79403/ opm31.pdf?sequence=1#page=75>.

The current education system in Slovakia is still looking for trajectories to lead students at all levels of education to the ability to find the necessary information, orient themselves in it in the context of broader contexts, analyze, synthesize and as a result apply it in practical life. In teaching and assessment, memorization is preferred to the actual use of information - the ability to draw conclusions, discuss because of arguments, look for an alternative solution..., which is possible only when understanding the relevant context. Hirsch's mentioned concept of cultural literacy also emphasizes reading culturally relevant books, watching culturally relevant films, shows... so that a culturally literate person can know the typical features and symbols of a given culture (not only at the word and script level) and understand them. In this context, it is important to emphasize respect for culture, cultural heritage, as well as the creator - the person who must "return and build on the values that have contributed to the great development of man in the past"18 and look for ways to fulfill this in everyday society and in education, as heritage literacy has its roots in the understanding of cultural heritage as the collective wealth of the community. "In the 21st century, some factors, such as the awareness of multiculturalism, the preservation of local culture and the recognition of national cultural heritage, have led to the need for a new literacy skill called cultural heritage literacy. "19

2 Methods

This encourages debates on improving the quality of education focused on the historical and cultural context of information, which should be reflected in the development of competencies (skills, abilities, knowledge and attitudes) that can be used in the chosen profession, jobs and functions so that they can anticipate and solve problems, cope with changes in work, appropriately solve a wide range of unpredictable problems and enable them to successfully cope with rapid changes in professional and personal life, to see a world of complex and global interconnectedness. We consider it important to develop selected competencies in mutual symbiosis, to link specific scientific research with real practice. The goal of the university student's training (not only in the humanities and social sciences) should be a culturally competent person who uses speech and culture as a cultural tool of a competent user, is able to understand culture in broader contexts, can express himself/herself by means of a given culture, but elements of culture can also (re) produce at a high-quality level. In connection with the study program, we mention in this article, an important specification is that the graduate is significantly aware of the importance of cultural communication, respects folk traditions, as well as the whole complex of tangible and intangible cultural heritage. He/she knows topics focused on the cultural tradition and cultural heritage of the locality, region, country ..., and thus develops his /her awareness of cultural identity and develops his/her (inter) cultural competencies. He/ she orients himself/herself in the latest information and communication technologies, in the media system and at the same time understands culture and can express himself/herself in terms of cultural literacy through appropriate means of communication.

The content framework of cultural literacy goes beyond the dimension of information and media literacy and is a connecting platform for specific interdisciplinary educational content. Such a view of the mentioned issue has resulted in the ambition to present at least a brief reflection on the possibilities of training professionals in the promotion of cultural heritage, for whom cultural literacy is an important skill, a prerequisite for the performance of their

HULAN, B., DZURIAKOVÁ, J.: Vybrané kapitoly zo systematickej etiky. Žilina: EDIS – vydavateľstvo ŽU v Žiline, 2017, p. 104.

ÖZTEMIZ, S. Cultural Heritage Literacy: A Survey of Academics from Humanities and Social Sciences. In *Journal of Librarienship an Information Science*, 2020, Vol. 52, No. 3, p. 818. [online]. [2022-02-25]. Available at: https://journals.sagepub.com/doi/abs/10.1177/0961000619872529>.

profession. (Interviews with students show that the topic of cultural literacy needs to be given more attention – the very concept of cultural literacy is encountered by many for the first time in college – the oral survey was conducted frontally on a sample of 50 university students, provided useful information, which indicated the level of knowledge of the concept itself, but partly also the experience and expectations of the next generation of professionals, who are aware of, for example, the extent of globalization trends in the media space, but also the need to strengthen the regional / local principle.

In the study we work with the method of qualitative research, which is focused on a detailed description and analysis of a specific case. Selected aspects of related theory with a focus on empirical experience are presented through a case study - it is a study of a selected institution (university - a specific study program), while we focus on specific approaches in the education of future information professionals. The aim of the study is to present an original model of education combining three basic trajectories of education focused on media, information and cultural (heritage) literacy. Through a case study, we provide a more comprehensive view of a selected phenomenon of cultural (heritage) literacy in higher education. The thesis deals with the elaboration of a specific case - a description of the key contents of education in the Central European area of a unique (based on benchmarking) study program in connection with relevant areas of research activities - it is a case study - a description and analysis of the selected case in context. We present information in the context of relevant theory and supplement it with practical experience and findings. We deal with the researched phenomenon of cultural (heritage) literacy on a theoretical and practical level. The theoretical part is a reflection of analytical and critical reflection on related concepts, including a synthesizing view of them. Theoretical knowledge guided us in the exploration and search for facts that provide an empirical picture of the implementation of cultural (heritage) literature in the process of the selected strategy of higher education. The symbiosis of theoretical reflections and practical experiences form a knowledge base of new quality, which can be further subjected to comparisons in different contexts of perception.

We present experiences and the findings through a case study focused on the content of the unique study program Mediamatics and cultural heritage implemented at the Faculty of Humanities of the University of Žilina in Žilina for more than 15 years. We focused on a case that is exceptional in higher education (the result of comparing the contents of education through the benchmarking method), we describe the specific contents and processes of education. As part of the case study, we present findings from observation and experience over a longer period as a research method, and this basic information is intended to stimulate and precede more extensive research aimed at monitoring the strengthening of cultural literacy in selected groups of university students. The mentioned study program as a research entity would be selected based on the attribute of its uniqueness and originality, an important selection criterion was also practical experience with education of students in the given field. Mediamatics and cultural heritage have content and research anchored in the space of media and communication studies. In the results of education, it combines the relevant literacy mentioned in the introduction - information (computer, digital) literacy, media literacy and cultural literacy. We focused on the survey of education aimed at the acquisition of competencies in the field of information and communication technologies, media, and cultural heritage, i.e., symbiosis of information, media, and cultural literacy.

3 Results

Based on the information survey and benchmarking of study programs at home and abroad, which was carried out in the period 12/2021 to 1/2022 at the Department of Mediamatics and Cultural Heritage, Faculty of Humanities in University of Žilina in Žilina, it was found that the mentioned study program has no direct competition in Slovakia (where it is provided). Abroad, there are partially similar but not identical study programs (University of Venice) – "Digital

and Public Humanities" study program (the program includes cultural heritage, digitization, media, management, information and technical aspects in the field of websites; King's College London - study program "Culture, Media & Creative Industries" (the program focuses on media communication, cultural studies, creative / media industries and institutions, but in comparison with our study program it does not comprehensively cover the field of cultural heritage; University of Wisconsin-Madison (USA) - "Media and Cultural Studies" study program (emphasis is placed on the study of the media in their historical, economic, social and political context), examines the cultural forms created and disseminated by the media industry, focuses on the ways that resonate in everyday life at the individual, national and global levels, focuses on sound and image media - television, new media, film, popular music, radio, video games - supports interdisciplinary and transmedia research. Compared to the study program we have analyzed; it does not offer the opportunity to study cultural heritage and does not address issues of digital interpretation of cultural heritage).²⁰ Based on the findings, it can be stated that the uniquely constituted study program presented by us is unique in the region of Central Europe due to its interdisciplinary reach and focus - connecting media, digital humanities and cultural heritage as an interdisciplinary platform aimed at gaining information, media, and cultural literacy. The impetus for the creation of the mentioned study program was the changing demands on the preparation of media content creators and the growing need to protect cultural heritage. Cultural heritage literacy skills are very important, especially for information professionals focused on providing services in the field of presentation and promotion of cultural heritage. Such professionals must have appropriate qualifications which they can acquire through specific training in a study program drawn from subjects providing these skills. Today, information and media content creators are required to accumulate skills, and at the same time, it is still common ground that a good media content creator "must know something about everything, and everything about something". "It is considered beneficial especially for information professionals who have functions of protecting and transferring cultural heritage to the next generations, to add courses or course contents directly related to cultural heritage literacy to undergraduate programs...."21 Graduates of the study program Mediamatics and cultural heritage are systematically guided to the interdisciplinary connection of media, information technology and cultural heritage, which creates a good basis not only for content creation but also for the use of information and communication technologies, database work (data journalism), computer graphics and orientation in the online environment. The very focus of the study program is that it is not possible to focus "only" on current media issues, but the graduate's key knowledge must include knowledge of cultural history and contexts, as knowledge of cultural heritage is increasingly in demand due to increasing levels of education and the influence of the mass. media."22 The important aspect is the emphasis on respect for culture, cultural heritage, as well as its creator - man who must "return and build on the values that have contributed to the great development of man in the past... . "23 In the context of the presented topic, we consider it crucial to mention the connection between education and research, which we consider to be a basic part of the training of future information professionals. An important part of graduate training is the connection of education with the research activities of teachers and researchers who, through their projects, contribute to the research of the history of Slovak book culture.

Note of the authors: Benchmarking was conducted by the team of Department of Mediamatics and Cultural Heritage under the supervision of Ing. Henrieta Šuteková, PhD.

OZTEMIZ, S.: Bilgi ve Belge Yönetimi öğrencilerinin kültürel mirasokuryazarlığı: Hacettepe Üniversitesi örneği. In *Bilgi Dünyası*, 2020, Vol. 21, No. 1, p. 67. [online]. [2022-02-25]. Available at: https://www.researchgate.net/publication/341744102_Cultural_Heritage_Literacy_of_The_Students_of_Information_Management_The_Case_of_Hacettepe_University.

²² BENČIČ, S., KHARITONOVA, L.: Literary Tourism and Its Role in the Study of Culture (Based on the Material of the Life and Work of Dusan Makovitsky). In *Bulletin of the Karaganda University*, 2021, No. 3, p. 112.

²³ HULAN, B., DZURIAKOVÁ, J.: Vybrané kapitoly zo systematickej etiky. Žilina : Žilinská univerzita, 2017, p. 104.

Students are part of these activities and are "co-solvers" of partial outputs of works, in the form of assignments, seminar and final theses. These are the projects *Memory of Slovakia, Research of Catalogs of Historical Libraries as a Phenomenon of the Cultural Heritage of Slovakia and Slovaks, Chronology of Library History in Slovakia from the Beginning to 2020* and *Graphic Decoration and Typography of Old Prints published in Slovakia in the context of evolving printing technology.* Partial parts of the outputs from these projects (associated with the cultural-historical aspects of selected topics) significantly strengthen the cultural competencies of the students involved in terms of their work in the field of cultural and creative industries, i.e., in their future professions, the basic requirement of which is a high level of acquired knowledge and skills in this field. In symbiosis with other media, digital and information competencies / skills, we consider as key, for example:

Research in the field of restoration, conservation, and protection of cultural heritage objects - the aim was to create an educational program for practical identification, archival processing, conservation, and restoration of photographs in the Slovak Republic. The concrete outputs of the activity at present are the creation of a model library of the 20th century after the screening evaluation of book documents, based on which the methodology of non-destructive evaluation in the SurveNIR system was created. As part of the research task Protection of Colour Photography, attention was focused on the evaluation of lighting conditions in the main depository of the Slovak National Library (SNL), a survey of the occurrence of colour photography in the deposit Literature and Art Archive of the Slovak National Library was prepared and a model for evaluating the aging of a colour photograph after long-term storage in the absence of light and in conditions where the colour photograph is exposed to light (exposure, etc.) was prepared. The results of the research were incorporated into the updated and expanded textbook Document Protection. A special topic was also the research of illuminated and drawn decoration in the SNL incunabula collection and the research of historical maps in the SNL collections, from which databases and monographic representative works were prepared, as well as biographical and genealogical research of Slovak personalities and its presentation. Extensive research covered the history of book printing, publishing, bookbinding (the history of publishing the most published Slovak book Cithary sanctorum, a rare book of cultural heritage, was mapped in the form of a bibliography); research of patriotics (it is one of the latest research topics in the history of book culture in Slovakia - basic research was performed on the database of Slovak authors publishing their works outside Slovakia, the database of non-regional dictionaries, but also for the model personal bibliography of important personalities with Slovak roots, Samuel Tešedík Jr. and Sr, who worked in the Slovak-inhabited territory in the Lower Land and had a great influence on national, church and economic life in Slovakia).²⁴ The topics set in this way are directly linked to the acquisition of cultural literacy in a broader and interdisciplinary context and directly increase students' practical skills, in particular by their personal involvement in research and have a direct impact on raising the cultural awareness of the generation.

Research of catalogs of historical libraries as a phenomenon of cultural heritage of Slovakia and Slovaks – the project was focused on primary heuristics and basic research in obtaining information and source documents of catalogs of historical libraries in Slovakia from the 13th century to 1918 and based on this research the beginnings of library history were postponed in this sense to the beginning of the 12th century. Within the project, a bibliography of professional and scientific works on the topic was prepared, which is available on the page presenting the database of catalogs of historical libraries.²⁵ A treasurable manuscript was discovered during the research, we assume that it is the manuscript of the historian of book culture history,

Publications, which Were Written in Terms of the Following Project. [online]. [2022-02-25]. Available at: https://fhv.uniza.sk/web/_dokumenty/ceps/ceps_publikacna_cinnost.pdf.

Project Research Results. [online]. [2022-02-25]. Available at: http://historickekniznice.uniza.sk:8080/Sekundarna_literatura_KHK.pdf.

Boris Bálent, a catalog of historical libraries in Slovakia, which contains information on almost 1000 catalogs of historical libraries. The facts presented in the scientific collective monograph of the Historical Library in Slovakia until 1918 can be considered extraordinary results, as part of the systematization of information about them, their typology was created, which would enable their clarity and the possibility of sorting information according to their owners. Among the important moments is the research of the library of the Slovak Women's Association Živena, which was highly praised by the President of the Živena Association, a former member of the National Council of the Slovak Republic and the current chairwoman of the NGO Via cultura, Mrs. Magda Vášáryová. Also, because of this research, the reconstruction and modification of the premises of this rare library began. The research aroused interest among students who, through their final theses, dealt with partial research topics and their presentation.

Based on the source research, 4574 libraries (or information about their catalogs), which operated in Slovakia from the beginning of the 12th century until 1918, were documented, of which 2,376 confirmed the existence of a historical library catalog with a description of the document. The most important scientific result of the project is the publicly available information database Catalogs of Historical Libraries. The knowledge of the funds will have a general cultural and social benefit and their interdisciplinary character will have a benefit not only in terms of history, but also in terms of other scientific disciplines. Practical use is expected in general history, but also in cultural history and regional history. Historical libraries are closely linked to their place of origin and are directly linked to cultural identity. It was regional research that was focused on the involvement of students in practical outputs, and often this regional patriotism, or regional approach linked with the use of acquired knowledge and information, digital and cultural competencies brought concrete and usable outputs in practice, namely of cultural and creative industries.

Chronology of the history of libraries from the beginning to 2020 (Chronologia historiarum bibliothecarum ab initio usque ad annum 2020). The originality of the project lies in the acquisition of unique knowledge and documents about the historical changes in the origin and building of book collections and later also the institutionalized network of libraries from the Middle Ages to the present regarding the national context. The research is focused on documenting specific manifestations of collection activities and curriculum aspects of library institutionalization. Emphasis is also placed on the popularization of results through scientific, professional, and popular publications, scientific and professional events, as well as software solutions, especially in the digital information space. A modern element and at the same time a specific research problem in the presentation of the obtained data is their visualization using new technologies. The innovativeness of the project is also in the form of access to the analyzed documents and acquired knowledge in the digital information space. Students become actors (as organizers and visitors) of events and are directly confronted with issues of promotion and interpretation of cultural heritage.

Graphic decoration and typography of old prints published in Slovakia in the context of evolving printing technology – the last of a series of presented projects to research the history of book culture with active student participation in the proposed context presents a new, qualitatively different perspective on the issue of old prints. Part of the new perspective of viewing the issue is research in the field of clarification of processes of acquisition and creation of graphic and typographic materials for printers, their equipment, research and documentation of their creation techniques and anonymous works – in terms of their publication / printing – creating

Project Research Results. [online]. [2022-02-25]. Available at: http://historickekniznice.uniza.sk:8080/xmlui/.

²⁷ See: AUGUSTÍNOVÁ, E.: Výsledky výskumného projektu. Výskum katalógov historických knižníc ako fenoménu kultúrneho dedičstva Slovenska a Slovákov. In Mediamatika a kultúrne dedičstvo: revue o nových médiách a kultúrnom dedičstve, 2017, Vol. 4, No. 1, p. 1-5. [online]. [2022-02-25]. Available at: https://fhv.uniza.sk/mkd_revue/01_2017/01_2017_augustinova.pdf.

²⁸ See: PITOŇÁKOVÁ, S.: Chronológia dejín knižníc od počiatkov do roku 2020. In *Knižnica*, 2021, Vol. 22, No. 1, p. 94-95.

a database to verify the origin and their identification in individual printing offices in Slovakia. The main scientific goal is to identify key determinants influencing the character of the means of expression and graphic decoration of historical prints. Old and rare presses, as a source of historical material, are needed for study and research in a wide range of social sciences and are an important source of knowledge of our history. Historical documents are closely linked to their place of origin and the contribution of regional character is followed by cultural identity and historical documents are its proof at the national, regional, family, or subcultural level. Direct contact of the user of historical documents in the physical or digital form creates historical capital from historical books, which (if it is sufficiently mapped and accessible) can be used in an interesting way even in the current world of modern technologies. The pedagogicaleducational moment will also be a benefit, as its results will enable them to provide students with a picture of research and a space for research into Slovak cultural heritage at home and abroad. Students will have the opportunity to participate directly in the various stages of the project, in which they can practically verify the knowledge gained in subjects taught in the study program Mediamatics and cultural heritage, which by its interdisciplinary nature meets the ambitions and requirements of applying digital humanities in practice. Research into the possibilities of information visualization is a contribution to the creation of an interactive display of the researched project issues (interactive maps, development timelines, selection of individual authors, creation of online shows, possibilities of displaying digitized content), creating your own generator of graphic decoration (determining structure, metadata), with the unambiguous contribution of the student who acquired the given information, digital and cultural competencies within the study.

The interconnection of educational and research activities focused on the field of cultural heritage leads to a deeper understanding of key topics related to the protection and promotion of cultural heritage and also supports the development of key competences in cultural heritage (intentionally, in the context of the topic we mention only projects focused on cultural heritage). "Protection of cultural heritage products in a sustainable manner requires the information concerning those products to be accessible, usable and shareable. Even the skills of cultural heritage literacy, which form the basis of this process, are important for everyone, these skills are much more necessary for information professionals who have the responsibility to provide service in cultural heritage. Evaluating cultural heritage literacy skills of information professional candidates, carries a great importance to understand whether they have adequate qualifications while serving as a professional and to determine necessary training subjects they need."²⁹

4 Discussion

The presented program combines humanities and technical aspects of communication in a digital society in an original way. Abroad, similar programs are referred to as "Information studies" or "New media studies" and are very popular among students. *Mediamatics and Cultural Heritage* profiles an interdisciplinary-oriented study program focused on three key areas: media, digital humanities, and cultural heritage. Related to this is the content of education, which is characterized by three specific trajectories (pathways) of education adapted to the dynamically changing expectations and needs of a modern digital society:

- Media-managerial trajectory leads to media literacy
- Digital humanities trajectory moving towards information literacy
- Cultural heritage trajectory leads to cultural literacy.

ÖZTEMIZ, S.: Bilgi ve Belge Yönetimi öğrencilerinin kültürel mirasokuryazarlığı: Hacettepe Üniversitesi örneği. In Bilgi Dünyası, 2020, Vol. 21, No. 1, p. 67. [online]. [2022-02-25]. Available at: https://www.researchgate.net/publication/341744102_Cultural_Heritage_Literacy_of_The_Students_of_Information_Management_The_Case_of_Hacettepe_University.

An innovative element in the field of study is the content line of cultural heritage, through which professionals in the field of popularization and protection of national cultural heritage are prepared. From the point of view of our topic, the desired and expected result of the educational process is cultural literacy, the basis of which lies in the understanding of literacy as a base of knowledge and competencies associated with the field of cultural heritage as collective capital of (any) community.

The determining factor is also the fact that information and media literacy is perceived as an integral part of this process - through the media management trajectory and the trajectory of the digital humanities. The offer of subjects is extensive, and students choose their own path of education through compulsory elective subjects. They complete courses focused on media, marketing, management, library and information science, information and communication technologies, history of culture and art, literature and several specialized subjects related to a specific trajectory. In their preparation, emphasis is placed on an analytical and critical view of current mass media issues in various thematic and semantic contexts, on media factors and forms, as well as on the commercial nature of contemporary media. It is therefore a comprehensive system of knowledge, skills (ideally also experience), which is to help the effective use of media production in favor of the promotion of widely established, valued and beneficial values respected by society and individuals. Part of the teaching is the acquisition of skills in the field of media production (expressive media production as a prelude to professional media production) and media competencies in the field of productive activities in accordance with the available theory through practical exercises. Students work with various forms and forms of information and are guided to be able to present information and media content in an adequate way and form through various types of traditional and new media. They are led to critically evaluate information and media content, learn to create media content and through them to strengthen positive human values and the relationship to traditions, culture in general and cultural heritage. The acquired knowledge is used in practice with an appropriate presentation of cultural heritage.

All presented projects in the scientific research area significantly contribute to the preservation, interpretation of written cultural heritage collected in memory institutions in Slovakia and in connection with the pedagogical process contribute to increasing the cultural literacy of interested students who are engaged in scientific research, motivated to further research and issues. Capable to present selected elements of tangible and intangible cultural heritage to selected target groups. These activities in combination with the specifically set content of education are a prerequisite for increasing information, media, and cultural literacy.

5 Conclusions

We live lives (both private and professional) that are linked to different types of media and a wealth of information. Our coexistence with the media does not mean that we know the media, the way they work or the impact on the lives of individuals and society, nor that we can make full use of their potential. In the process of the continuous technological development of society, there are justified efforts to massively promote information and media literacy, less is said about cultural literacy, which is a direct reference to the cultural-historical and political development of society. The dynamics of the information space and the massive growth of information have directed us to a situation unparalleled in human history – we have a constant and massive supply of information, which we are not always able to process (or even search) to support the quality and scope of our information in relevant contexts. The role of universities is to respond adequately to current developments in society, and to place the above topics in the context of wider discussions on cultural literacy. It plays an important role in finding innovative approaches that lead to a continuous connection between history and the present.

The presented case study focused on the description of the original study Mediamatics and Cultural Heritage represents education aimed at supporting innovative models, the ambition of which is to combine interdisciplinary content and interdisciplinary creativity. Graduates of the presented study program work in various job positions corresponding to the chosen trajectory of education. Responses from practice (graduates themselves, employers) are an impetus for cyclical reconstructions of educational content to meet the requirements of modern (digital) society, but also to maintain a range of content that strengthens cultural tradition, cultural identity, and knowledge of cultural heritage. Another important aspect is their ability to successfully present cultural heritage in a modern way through traditional and new media, because the media is a very viable organism that adapts very quickly (both in terms of technology and content) and likes to absorb interesting elements, topics - it can also be "old" themes presented in a modern way. In practice, they prove that the symbiosis of information, media and cultural literacy is currently an invaluable competence of a person working in the field of culture, cultural and memory institutions, but also an invaluable competence of a person working in the media and information space. The presented article offers a view of the educational platform beyond the scope of education in the field of media and communication studies and, through a case study, presents a common and proven model of education with the contextual connection of digital, media and cultural literacy. We are on the threshold of the changes started by the coronavirus pandemic and the changes we are considering in the context of the war in Ukraine. It turns out that a world marked by globalization can be easily vulnerable and even in such moments it is extremely important to emphasize the need for information, media and cultural (heritage) literature as competencies to work with information resources, technologies and not forget the (inter) cultural dimension of our functioning and development. In connection with the preparation of graduates for their further work, the current events create an extremely specific set of challenges for higher education institutions. The world is exposed to new situations and higher education institutions must be prepared to navigate future professionals so that they can use their skills and knowledge in an unknown (we do not mean geographically) environment. The purpose of education is essentially unchanged - to provide skills that can be used flexibly in changing situations (and cultural contexts), emphasis must be placed on interdisciplinary and contextual overview of information to increase the quality and understanding of communication in its various situations and variations. In the present case study, we discussed the symbiosis of three literacies, which are part of the three trajectories of education in the study program Media and cultural heritage. It turns out that such a connection in the context of interdisciplinary education can be considered a new professional standard (we mean especially the context of anticipated future) professions, as such a view emphasizes the important possibilities of the modern world, without forgetting the cultural heritage acquired through previous generations.

The presented study brings a symbiosis of selected theoretical reflections and practical experiences, which create a knowledge base of new quality, and these can be further subjected to detailed comparisons in different contexts of viewing.

Acknowledgement: The contribution was created within the project APVV-19-0524 Chronológia dejín knižníc od počiatkov do roku 2020 (Chronologia historiarum bibliothecarum ab initio usque ad annum 2020) / Chronology of the History of Libraries from the Beginning to 2020 (Chronologia historiarum bibliothecarum ab initio usque ad annum 2020).

Literature and Sources:

AUGUSTÍNOVÁ, E.: Výsledky výskumného projektu. Výskum katalógov historických knižníc ako fenoménu kultúrneho dedičstva Slovenska a Slovákov. In *Mediamatika a kultúrne dedičstvo: revue o nových médiách a kultúrnom dedičstve*, 2017, Vol. 4, No. 1, p. 1-5. ISSN 1339-777X. [online]. [2022-02-25]. Available at: https://fhv.uniza.sk/mkd_revue/01_2017/01_2017_augustinova.pdf>. BENČIČ, S., KHARITONOVA, L.: Literary Tourism and Its Role in the Study Of Culture (Based on the Material of the Life and Work of Dusan Makovitsky). In *Bulletin of the Karaganda University*, 2021, No. 3, p. 102-110. ISSN 2663-5011.

GROMBLY, A., ANDERSON, A. Information And Media Literacy: Integrating Literacies Into Library Instruction. In *Media Literacy and Academic Research*, 2020, Vol. 3, No. 1, p. 1-12. ISSN 2585-9188. [online]. [2022-02-25]. Available at: https://www.mlar.sk/wp-content/uploads/2020/04/1_ Amanda-Grombly.pdf>.

HAMAR, J.: Súčasná reflexia tradičnej ľudovej kultúry v médiách. In Problematika prezentace a medializace tradiční lidové kultury: sborník příspěvků z 21. strážnického sympozia konaného ve dnech 15.-16. března 2006. Strážnice: Národní ústav lidové kultury, 2006, p. 108-116.

HRDINÁKOVÁ, Ľ.: *Mediálna a informačná gramotnosť – úvod do problematiky*. Bratislava : UK Bratislava, 2013.

HULAN, B., DZURIAKOVÁ, J.: *Vybrané kapitoly zo systematickej etiky.* Žilina : EDIS – vydavateľstvo ŽU v Žiline, 2017.

JALAL, A.: Media Literacy – Prerequisite for the Spread of Cultural Traditions. In *Constantine's Letters*, 2013, Vol. 6, No. 6, p. 161-167. ISSN 2453-7675.

KAŇUKOVÁ, N.: The Promises, Challenges, and Futures of Media Literacy. In *Media Literacy and Academic Research*, 2018, Vol. 1, No. 2, p. 1-2. ISSN 2585-9188. [online]. [2022-02-25]. Available at: https://www.mlar.sk/wp-content/uploads/2019/01/MLAR_2018_2_NEWS_4_The-Promises-Challenges-and-Futures-of-Media-Literacy.pdf.

MISTRÍK, E.: Ciele a obsah multikultúrnej výchovy a vzdelávania pre Štátny vzdelávací program ISCED 0 a ISCED 1. Bratislava, 2011. [online]. [2022-02-25]. Available at: https://www.statpedu.sk/files/articles/dokumenty/statny-vzdelavaci-program/mkv_isced_0_1.pdf.

MISTRÍK, E.: Kultúra a multikultúrna výchova. Bratislava: IRIS, 1999.

ÖZTEMIZ, S.: Bilgi ve Belge Yönetimi öğrencilerinin kültürel mirasokuryazarlığı: Hacettepe Üniversitesi örneği. In *Bilgi Dünyası*, 2020, Vol. 21, No. 1, p. 65-87. ISSN 2148-354X. [online]. [2022-02-25]. Available at: ">https://www.researchgate.net/publication/341744102_Cultural_Heritage_Literacy_of_The_Students_of_Information_Management_The_Case_of_Hacettepe_University>">https://www.researchgate.net/publication/341744102_Cultural_Heritage_Literacy_of_The_Students_of_Information_Management_The_Case_of_Hacettepe_University>">https://www.researchgate.net/publication/341744102_Cultural_Heritage_Literacy_of_The_Students_of_Information_Management_The_Case_of_Hacettepe_University>">https://www.researchgate.net/publication/341744102_Cultural_Heritage_Literacy_of_The_Students_of_Information_Management_The_Case_of_Hacettepe_University>">https://www.researchgate.net/publication/341744102_Cultural_Heritage_Literacy_of_The_Students_of_Information_Management_The_Case_of_Hacettepe_University>">https://www.researchgate.net/publication/341744102_Cultural_Heritage_Literacy_of_The_Students_of_Information_Management_The_Case_of_Hacettepe_University>">https://www.researchgate.net/publication/341744102_Cultural_Heritage_Literacy_of_The_Students_of_Information_Management_The_Case_of_Hacettepe_University>">https://www.researchgate.net/publication/Alloya.publication/Alloya

ÖZTEMIZ, S. Cultural heritage literacy: A survey of academics from humanities and social sciences. In *Journal of Librarienship an Information Science*, 2020, Vol. 52, No. 3, p. 818-831. ISSN 0961-0006. [online]. [2022-02-25]. Available at: https://journals.sagepub.com/doi/abs/10.1177/0961000619872529.

PITOŇÁKOVÁ, S.: Chronológia dejín knižníc od počiatkov do roku 2020. In *Knižnica*, 2021, Vol. 22, No. 1, p. 94-95. ISSN 1336-0965.

PITOŇÁKOVÁ, S.: Tematika kultúrneho dedičstva v mediálnom prostredí. In *Mediamatika a kultúrne dedičstvo: revue o nových médiách a kultúrnom dedičstve*, 2016, Vol. 3, No. 1. ISSN 1339-777X. [online]. [2022-02-25]. Available at: https://fhv.uniza.sk/mkd_revue/01_2016/01_2016_pitonakova.pdf.

SALO-LEE, L.: Cultural Literacy – An Aim of Global Education. In KAIVOLA, T., MELÉN-PAASO, M. (eds.): *Education for Global Responsibility – Finnish Perspectives*. Helsinki: Helsinki University Press, 2007, p. 74-82. [online]. [2022-02-25]. Available at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/79403/opm31.pdf?sequence=1#page=75>.

SHAMSHAYOOADEH, G.: Cultural Literacy in the New Millennium: Revisiting E. D. Hirsch. In *International Journal of Humanities and Social Science*, Vol. 1, No. 8, p. 1-5. ISSN 2690-0688

ŠVEC, J.: What Can Social Sciences and Humanities Offer in the Situation of Global Pandemic? Short Reflection on the Book The Human Rights Controversies and the Covid-19 Pandemic. In *Filozofia*, 2022, Vol. 77, No. 2, p. 127-142. ISSN 2585-7061.

VRABEC, N.: Úroveň mediálnej gramotnosti mladých ľudí na Slovensku. Bratislava : IUVENTA, 2007, p. 1.

ZÁPOTOČNÁ, O.: *Kultúrna gramotnosť v sociálno-psychologických súvislostiach*. Bratislava : Album, 2004.

Authors



PhDr. Slavka Pitoňáková, PhD.
University of Žilina in Žilina
Faculty of Humanities
Univerzitná 8215/1
010 26 Žilina
SLOVAK REPUBLIC
slavka.pitonakova@fhv.uniza.sk

Slavka Pitoňáková's work focuses on connecting the media with selected areas of marketing communication (especially public relations and advertising), as well as the presentation of cultural heritage, science, and research in the media. She is the author of publications, and she publishes in various professional journals and conference proceedings. Moreover, she was and still is a member of organizational teams of conferences/congresses, participated, or was a member of the research team of several projects (ESIF, VEGA, KEGA, APVV). She worked in the project Research Centre of the University of Žilina where she coordinated public relations. She was a member of the working group for the preparation of the Concept of Media Education in the Context of Lifelong Learning (Ministry of Culture of the Slovak Republic, 2009). She is a member of the temporary working group for the field of legislation - copyright (Ministry of Culture of the Slovak Republic, 2021). Her focus in the field of pedagogical work is in combining theory with media and marketing practice, as well as on media and film education.

Mgr. Eva Augustínová, PhD.

University of Žilina in Žilina
Faculty of Humanities
Univerzitná 8215/1
010 26 Žilina
SLOVAK REPUBLIC
eva.augustinova@fhv.uniza.sk



Eva Augustínová is a specialist for bibliographic records preparing and editing, researcher in the field of the history of book culture, especially research of book printing, book shopping and book publishing, compilation of bibliographic works, focusing on the elaboration of concepts of specialized library and information activities on the national level, providing methodological, advisory and consultancy activities for the area of the Slovak National Retrospective Bibliography (issue of a manual for old prints cataloguing), coordinating the creation of methodical materials for old prints cataloguing, preparation of methodical materials for partners participating in the program of the Slovak National Retrospective Bibliography, solving research tasks in the field of research in the history of book culture, initiator of national and international conferences, initiator and author of proceedings and bibliographic works, research tasks in the field of research and development of the techniques for accessing digital content and the techniques of scientific communication, research in the field of restoration, preservation and protection of cultural heritage objects and fundamental research of historical books and collections) - coordinating and conducting research on the history of book culture, passportization and access to the Slovak written heritage, publishing research results, ensuring the integration of information systems in the processing of old and rare documents.