# Peculiarities of Distance Learning Organization in the Professional Training of Information, Librarianship, and Archives (European Experience)

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**Abstract**

The article's aim is to analyze the distance learning peculiarities in the professional training of the specialty "Information, library, and archive management" based on the European experience. Methodology. For the revelation of the problematic the systematic method, comparative analysis, abstraction, and dialectical method were used. The results evaluated the experience of European universities in the implementation of relevant educational programs, namely the British, French, Spanish practices were analyzed. Since 2007 the European Union has been funding research to explore the best models for organizing distance education. Many universities have integrated library, information, and archival specialties, inspired by the British experience. Training in these fields focuses on equipping students with competencies that are applicable across these professions. While the UK's digitalization and information infrastructure are advanced, other countries can still benefit from adopting their experience, formalized in a national standard. France and Spain have also given significant attention to the issue of distance learning. Spain, for instance, has been diligently preparing for the introduction of distance learning since 2010. The practical significance and novelty of the research lies in its potential to offer valuable insights into the best practices and approaches adopted by EU in organizing distance learning for these professions. Other nations and regions can learn from these experiences. In conclusions it is shown, that across all European Union countries, there has been a common emphasis on ensuring both teachers and students possess digital competence, a critical element in organizing training for information, archiving, and librarianship.

**Keywords:** European Union, higher education, information science, archives, libraries

## 1. Introduction

Modern requirements for the educational process organization are based on several important aspects. First of all, in terms of digitalization, that has embraced all the dimensions of social life and dictates certain rules of behavior and organization of professional, educational, and cultural activities. The spread of digitalization has been influenced by globalization challenges. They have gradually erose the borders between different countries and ethnic groups, uniting them at the societal level of functioning. The COVID-19 pandemic (Bakhmat et al., 2022) was also one of the catalysts for a major transformation in education. The quarantine restrictions and the introduction of distance learning have built the education policy shape on all fronts. Particularly, it is about the training of future specialists in information, library, and archival science.

The system of education in European higher education institutions takes into account all three of these problems, overcoming their negative manifestations, and using the advantages through the prism of close interaction with representatives of the labor market (Dooranov, Orozonova, & Alamanova, 2022). Due to this the achievement of positive results in the training of specialists of the relevant category is possible. Such experience, its updating, and detailed analysis will allow higher education institutions outside the European Union their own preparatory systems reform, as well as to focus on the advantages and disadvantages borrowing the necessary elements to adapt their own

courses to the requirements of our time.

The distance education in the university environment is generally realized by researchers as the ability to learn and get the necessary knowledge and skills at a distance from higher education at any time (Cleveland-Innes & Garrison, 2020). At the same time in the conditions of the modern development of information technologies, in this concept, it is often put other content connected with getting education by the attraction of computer and telecommunication technologies, forming interactive communications of teachers and applicants of education at all stages of training, promote independent work. with materials of digital networks (Rajab, 2018).

European researchers began to thoroughly study the features of distance education in the early 1990s. Nevertheless, their perceptions were somewhat different from today's (Mubofu & Malekani, 2021). Consequently, contemporary researchers attempt to rethink the role and importance of electronic platforms and distance learning in the system of training future specialists. However, valuable insights are provided by Behm (2002) who emphasized that distance learning is changing the landscape of library operations, as the latter are being transformed and converted into modern digital media libraries. Therefore, today's librarians and archivists must-have digital skills in order to meet the current needs of the labor market. Khasseh et al. (2009) also identified the relationship between distance education university resources and digital libraries. Kumar Basak et al (2018) characterized the theoretical framework of digital learning studies, explored the key terminological features between the concepts of E-learning, M-learning, D-learning based on corporatist analysis. According to Zhu (2021), digital and blended learning models have been growing in importance in higher education institutions in Europe recently. However, the authors still suggest that distance education will still not be as popular in the US and Europe in the near future (Khasseh et al., 2009). However, in some industries (computer technology, programming, information technology, and archival science, among others), digital change will occur much faster. Rajab (2018) studied the specifics of the distance learning in war zones implementation. The author considers that the organization of distance learning in such areas is an effective system for the implementation of educational services. Curry & Docherty (2017) noted the importance of information competence in the system of training modern competitive personnel. At the same time, Tytova & Mereniuk (2022) investigated the basic conditions and principles of of digital literacy formation, characterized its importance in the conditions of military realities. Rodríguez López et al. (2022) highlighted the peculiarities of distance learning organization in Spanish universities through the lens of the analysis of the training of specialists through the prism of bachelors in library and records management training. Pinheiro & Santos (2022) investigated the problem of distance learning in Portuguese universities. Cleveland-Innes & Garrison (2020) analyzed in detail at examples of distance learning organization based on the use of modern Internet technologies by institutions of higher education and public organizations. Dewi & Wajdi (2021) explored the problem of digital education policy. At the same time, Mubofu & Malekani (2021) characterized the relationship of modern libraries and digital learning resources in the organization of e-learning. Audunson & Shuva (2016) studied the specifics of digital library education organization in Europe. These authors noted the importance of practical aspects in distance learning curricula. Their work also pointed out the recommended electronic resources, the main directions of curricula for the training of qualified specialists in library and records management.

The article's aim is to analyze the distance learning organization in the process of professional training for the specialty "Information, library, and archive management" based on the European experience peculiarities.

## 2. Method

The study's findings are rooted in a systematic approach, which facilitated an examination of distance learning within the context of innovative organizational principles integrated into the comprehensive training of information, library, and archival science professionals. Additionally, the article employed comparative analysis and abstraction techniques to delineate the fundamental facets of distance learning structures within contemporary European universities. Employing a dialectical research method, the study perceives distance education as an ever-evolving and dynamic phenomenon. Furthermore, by utilizing forecasting methods, the investigation delved into the future prospects and potential directions for the advancement of distance education in the realm of information, library, and archival science education.

The research unfolded in multiple stages, with each stage adopting an appropriate methodology. In the initial phase, we gathered and scrutinized scholarly literature related to the subject matter, employing analytical methods to distill the principal findings and scholarly contributions. Leveraging the systematic approach, we synthesized the outcomes of this preliminary stage, providing a foundation for subsequent exploration. In the second stage, we conducted a comprehensive review of library and archival studies programs at European universities, identifying both

commonalities and distinguishing features through comparative analysis. The third stage, guided by the dialectical method, facilitated a deeper understanding of the evolutionary trajectories of distance education and its potential applications in training specialists in these fields. Finally, during the conclusion phase, abstraction techniques were employed to ensure impartiality in analyzing and synthesizing the results, allowing for the concise formulation of key findings.

## 3. Results

### 3.1 Digital Competence as a Key Prerequisite for Distance Learning in Information, Library, and Archival Science

Digital competence plays a pivotal role in the field of information, library, and archival science, especially in the context of distance learning. In an era characterized by rapid technological advancements and a growing reliance on digital resources, professionals in these fields must possess a strong foundation in digital competence to excel in their roles. Here are some key points highlighting the importance of digital competence in information, library, and archival science, particularly in the context of distance learning. Digital competence is not just a key prerequisite but a fundamental necessity for professionals in information, library, and archival science, particularly in the context of distance learning. As these fields continue to evolve and adapt to the digital age, individuals who possess strong digital competencies will be better equipped to meet the challenges and opportunities presented by the increasingly digital nature of their work.

One crucial factor in considering a career is the perceived status and prestige of the profession. According to Allen & Taylor (2017), the promise of an interesting job attracted more individuals to the library profession than compensation or prestige. Similarly, Deeming and Chelin (2001) observed that those who transitioned to librarianship generally found satisfaction in their new roles despite being aware of the profession's low status and poor image. In the study by Aust et al. (2015) focusing on public librarians, most participants expressed contentment with their jobs and careers. However, some still sought different employment opportunities due to concerns about low salary and limited prospects for advancement. Slightly over half of them reported overall job satisfaction, while just under half were exploring alternative job options due to inadequate pay and a sense of stagnation. Lepik (2014) examined professional librarians working in academic, public, and special libraries in Estonia. The findings indicated moderate job satisfaction among the participants. Key factors contributing to job dissatisfaction for Estonia librarians were salary, benefits, working conditions, and limited promotion prospects. Similarly, a study by Dukic (2017) found that Croatian librarians evaluated their jobs positively but expressed less satisfaction with their social status, salary, working conditions, and opportunities for further training.

Ferguson et al. (2016) showed: the researchers propose that new technologies themselves do not alter ethical principles, but their implementation in the workplace significantly changes the factors that professionals must consider. While existing codes of ethics adequately address traditional library concerns like access and confidentiality, they do not fully tackle the ethical complexities arising in today's digital environments. Interestingly, professional associations seem more familiar with codes of ethics than practitioners, although the practitioners demonstrate high levels of ethical awareness. This suggests that associations should enhance communication with their members and provide more practical tools relevant to the workplace Ferguson et al. (2016). Case studies are regarded as an effective method to educate and engage practitioners due to their ability to present intricate scenarios, conflicts, and ever-changing dynamics. Also, in today's digital age, information retrieval largely occurs online. Digital competence is crucial for conducting effective online searches, evaluating the credibility of digital sources, and employing advanced search strategies to locate relevant information efficiently (Rapanta et al., 2020). Librarians and archivists must also be adept at using search engines, databases, and information retrieval tools.

According to the EU Digital education action plan (2021-2027), education digitalization is a relevant direction for the development of the educational sector as a whole, as it has the potential to overcome the challenges and threats associated with society's globalization and informatization, as well as present opportunities for the development of educational-professional and research community (Digital education action plan (2021-2027), 2021). At the same time, the further transformation of the Bologna system of education affects the formation of new competencies, given the current changes in the labor market. The latter should include the critical, the creative thinking, informational and digital competence, and social skills. One of the primary objectives of the plan is to ensure that all learners, regardless of age or background, have access to high-quality digital education and training. This includes promoting digital literacy, coding skills, and other essential digital competencies. Also, the plan emphasizes the importance of investing in digital infrastructure for education, including high-speed internet access, hardware, and software. This is crucial for ensuring that all educational institutions can effectively integrate technology into their

teaching and learning processes. It is important to recognize the central role of educators in the digital transformation of education, the plan includes measures to improve the digital skills of teachers and provide them with the necessary training and support to integrate technology into their teaching methods. The EU Digital Education Action Plan (2021-2027) represents a comprehensive and forward-looking approach to digitalizing education in the European Union. It recognizes the importance of digital skills, infrastructure, teacher training, innovation, accessibility, and collaboration in shaping the future of education in a digital age. Monitoring and evaluation mechanisms will be crucial in assessing the plan's effectiveness in achieving its goals over the specified period.

Europe is characterized by its linguistic and cultural diversity, which is reflected in the professional training of information, librarianship, and archives (Passoneau & Christian, 2013). Distance education programs need to accommodate this diversity by offering content in multiple languages and considering the specific needs and contexts of various European regions. European countries often collaborate on educational initiatives, and this extends to distance learning in information-related fields. Collaborative programs and partnerships between universities and institutions across borders are common (Law et al., 2022; Malimon et al., 2022). This fosters the exchange of knowledge, resources, and best practices. Europe boasts advanced digital infrastructure and widespread internet access, which is advantageous for distance learning (Santhi, 2012). The availability of high-speed internet and reliable digital tools enhances the online learning experience and enables seamless access to digital resources and archives. European distance learning programs often take into account students' prior learning and professional experience. This recognition of prior learning allows students to build on their existing knowledge and skills, making distance education more flexible and tailored to individual needs.

For the professional training of future information, library, and archive generation professionals, European universities are willing to spend a great number of resources in order to prepare teachers for digital challenges and threats (Gupta et al., 2022). Particularly, the University of Aveira (Portugal) is introducing various digital professional development courses for teachers of all disciplines in order to train professionals capable of understanding the importance and role of digitalization and innovative research methods. Quite effective is a targeted program called Docência+ (Pinheiro & Santos, 2022). It provides great opportunities in the organization of various conferences, workshops for digital competence developing (Audunson & Shuva, 2016). The goal of this program is to familiarize teachers with basic information resources, platforms to make online learning interesting and effective for students. Technology evolves rapidly, and digital competence includes the ability to adapt to new tools, software, and platforms. Professionals in these fields should be lifelong learners, staying updated on emerging technologies and trends that impact their work.

Libraries play an integral role in our dynamic and ever-evolving social landscape. The process of organizational change in libraries encompasses various essential activities. These include formulating mission statements, refining goals to align with the library's role in the knowledge society, restructuring organizational frameworks, leveraging information and communication technologies, providing training for librarians, and effectively managing finances. In Estonia, libraries function as vital information centers that actively contribute to research and innovation by facilitating access to scholarly and professional information (Lepik, 2014). They also play a significant role in supporting education, lifelong learning, and cultural development. Additionally, Estonian libraries introduce global culture, ensure information accessibility to all segments of society, foster the development of an information society by adopting new technologies, contribute to the integration of the European information pool, and enhance Estonia's international reputation (Lepik, 2014). European distance learning programs often provide students with access to a wealth of historical and cultural materials, as Europe is home to numerous renowned archives and libraries (Kostis & Kafka, 2022). Distance learners can benefit from these resources for research and practical training (Tsekhmister, 2023). In response to the changing landscape of libraries and the ongoing innovations in the field, it becomes imperative for library schools to design curricula that adequately equip graduates for the dynamic demands of the workplace (Saunders, 2015). French universities also focus on the development of teachers' digital literacy in the distance education system. Sorbonne University introduces a variety of specialized digital projects aimed at developing and improving teachers' digital skills: development of digital communication, digital culture of communication, skills in using innovative technologies and resources, formation of multimedia presentations, etc. For example, teachers at Sorbonne University are currently involved in supporting digital competence through participation in the Mahara e-portfolio platform. It helps teachers to form an e-portfolio in order to effectively organize distance learning through the application of various innovative technologies (Study at Sorbonne University, 2022). The aim of the analyzed project at the formation of digital competence through the synthesis of educational and didactic resources, platforms, objects distributed and discussed in the learning space. The rest is formed not only by teachers: it includes students, librarians, and archivists. This synthesis of different specialists allows to explore

new innovations in the environment of electronic libraries, to acquaint teachers with modern electronic learning resources, to introduce innovative pedagogical methods of teaching through the prism of organizing classes on the basis of electronic platforms, etc. Separate directions of the project are the formation of special training digital portfolios, which contain a variety of video, audio materials, multimedia. Mahara participants also improve their digital writing skills and research skills through the use of modern media platforms and didactic resources (*Study at Sorbonne University*, 2022).

The European Union, realizing the importance of distance education back in 2007, introduced the International Master's Project called Erasmus Mundus International Erasmus Mundus (DILL), fully funded by EU countries. Until 2015, this project was organized by the University of Parma, Akershus University College of Applied Sciences, and Tallinn University (Reid, 2020). Since 2015 the project has been managed by two universities: Tallinn University and the University of Parma. Since the COVID-19 Pandemic, many examples of full-fledged digital library development programs have emerged in Europe (Dewi & Wajdi, 2021). The Institute of Educational Technology at the UK Open University has established an International Centre for Distance Learning, disseminating online courses in information and librarianship (Gumenyuk et al., 2021). However, a significant part of this Center is its digital library, which has more than 1,200 registered institutions that provide distance education. In addition, the digital library has more than 31,000 courses and 10,000 research papers on the subject of the distance learning organization. The current UK standards for teaching the specialty under study need further consideration since the country is not part of the EU today, but its documents have a determining influence on the formation of relevant standards in other states. Among higher education institutions here, library science, archives, information management, archives, and records management are realized as closely related subjects, bringing together in a pile the rules and expertise sufficient to provide knowledge, practical training, and communication (Curry & Docherty, 2017). The relevant documents also define the broad areas of knowledge that applicants to the relevant specialty in library, archives, and information science should possess (See Table 1).

The training system emphasizes that living in an information society requires professionals in their work in order to ensure that people are able to search for, to use, and to evaluate the information they receive when it comes to documents, manuscripts, books, and web pages that are necessary for learning, work, or recreation (Prullage, 2019) quickly and reliably. Achieving such a goal requires educational writers to understand the creation of information objects of representation, to imagine the ways where data can be disseminated, and why information objects need to be carefully managed to function both today and in the future.

This structure, in certain variations, is indispensable for the training of all information, library, or archival professionals in the UK. This set of areas has its advantages and disadvantages. On the one hand, it takes into account the current trends in the development of the information society. At the same time, such a model may not be effective in all countries, as the level of digitalization, for example, in Eastern Europe (this also includes the relevant equipment and infrastructure) is not at the appropriate level (Dobina et al., 2019).

Certain peculiarities of the organization of education in higher education institutions are also present in Spain. Particularly, future specialists in information, library, and archival affairs begin their education in the form of blended learning, for which the aul@unileon platform was initially developed, which was later replaced by the more popular Moodle platform, which took place during the 2012-2013 academic years. During these years of study, the plan was implemented and executed in a satisfactory manner, using all the measures necessary to implement the trajectory of education, the acquisition of the necessary competencies; it would also contribute to the acquisition of relevant professional qualities (Rodríguez López, et al., 2022).

Opportunities for the development of such virtual learning environments have been constantly improving over the years. Back in the 2013-2014 academic year, the University of Leon purchased and integrated video conferencing management modules into the educational process. Subsequently, the development of the regulatory infrastructure for changing the modality began. Online learning opportunities were developed for all studied specialties at the University of León (Reglamento para la docencia en titulaciones oficiales de la Universidad de León en modalidad a distancia, agreement of the General Council of the University of June 17, 2014).

At the beginning of this work, there were some difficulties. For example, in the annual plans, only half of the total teaching load was devoted to blended learning (Rodríguez López, et al., 2022). This negative experience has influenced the popularity of distance learning in other educational institutions. A kind of division of diplomas is still used. They are provided simultaneously in blended and online forms of education. The mixed modality is calculated according to traditional learning, while for online learning there are certain coefficients in the crediting of credits,

which are additionally calculated based on Article 9. Reglamento para la Docencia en Titulaciones Oficiales de la ULE en Modalidad a Distancia, Agreement of the General Council of the University of March 3, 2016).

**Table 1.** The Knowledge Structure of Librarians, Archivists, and Information Professionals

| Knowledge Area | List of skills, knowledge, and abilities |
|---|---|
| The knowledge and information formation and systematization | 1. The knowledge of relevant structures and standards that relate to and are used in knowledge lifecycle management, information, libraries, and archives. |
| | 2. The ability to form, operate, and develop systems that facilitate the organization of knowledge, needed data, library information, and archives, such as creation, information management, archiving, indexing, searching, and tracking. |
| | 3. The ability to identify and use relevant knowledge and skills to manage in information management, evaluation, acquisition, selection, classification, indexing, and cataloging. |
| Management and use of knowledge and information | 1. The ability to develop and use appropriate tools and techniques to help share knowledge, foster collaboration within individual organizations. |
| | 2. An understanding of the information-seeking and information behavior of others, and regarding the theoretical framework used to possibly account for such behavior. |
| | 3. The gained knowledge about information needs using in order to make creative decisions and fulfill the public requests of both potential user communities and individual users. |
| The information technology use | 1. The ability to create models of potential information requirements, information flows, and business processes in a way that allows you to develop effective and efficient mechanisms for implementing requests. |
| | 2. The knowledge of the basics of database design, object-oriented systems, conceptual data models (e.g., Resource Description Framework), working with web services, social networks, etc. |
| | 3. The understanding of how principles of knowledge and information creation and organization are used in systems and to design systems. |
| | 4. The ability to consider technological trends, to determine the implications of use for work, including - educational needs. |
| Management and work ethics | 1. The knowledge and understanding of cultural, ethical, economic, legal, political, security, and social issues related to working in information, libraries, and archives with both individuals and user groups. |
| | 2. The understanding of policies and regulations of processes and procedures for creating, collecting, maintaining, and using information, and maintaining a balance between access to information and information security. |

Developed by the authors based on Librarianship, Information, Knowledge, Records, and Archives Management (Undergraduate and Postgraduate) (2019, December).

Since the beginning of the use of distance learning practices, faculty members in the departments of library and information technology, as well as the rest of the staff involved in the information and document ordering process, have received the appropriate training and skills needed to teach in the online process. For this purpose, smaller universities have invited colleagues from larger and better-known institutions to work with them. For example, Professor Boniface Galán of Universidad Carlos III de Madrid taught other institutions of higher education the basics of working with distance digital technologies during the years 2011-2013. Similarly, representatives of specialized training courses related to learning platform management systems have repeatedly been involved in such activities. For example, during 2014-2017, employees of the Teacher Training School at the University of León in Spain also

offered a number of authoring courses on working with Moodle or AVIP systems. They also talked about resources for setting up an effective system of online learning: working with collaborative documents, online forms, conducting exams and conference calls, working with graphic editors, processing video and audio materials, creating video lessons. The experience was characterized positively, so the training later continued. Accordingly, in 2019, the Teacher Training School held information and communication technology classes to support teachers, especially for those members of the teaching staff who had relevant courses in the areas of information, archives, or libraries.

These courses allowed faculty members earning appropriate certificates (for a total of 1 ECTS credit). In order to do so, they had to take several general courses and required seminars. Topics included the theory and practice of virtual assessments, working with digital content, the basics of tutoring during online learning, and working with resources and web-based virtual assessment tools. It also covered the basics of recording, editing, and publishing classes, creating short videos, working on creative expressions while working with the Google engine, digital applications as a video conferencing option.

## 4. Discussion

According to the constant updating of the technological foundations of the library, information, and archival affairs, the issue of adapting the professional competencies of future specialists in these professions to nowadays need (Tytova & Mereniuk, 2022) has arisen. For this reason, the problem of enhancing the qualifications of higher education applicants, acquiring additional competencies by using elements of continuing education using distance digital interaction techniques becomes relevant (Kumar Basak et al., 2018; Tsekhmister, 2022). Indeed, the COVID-19 pandemic has made the trend toward the use of digital learning. Quarantine restrictions have made it almost without alternative, while at the same time, trends of decreasing enrollment in universities and increasing numbers of individuals who have opted for distance learning opportunities have existed for a long time before it. For example, according to American specialists' studies, the value of the digital learning market was already more than $160 billion by 2016, and a few years later (but before the pandemic) its volume was already estimated at more than a quarter of a trillion dollars within the U.S. alone. As demonstrated in their research, the intense growth of e-learning markets is comparable to the increase in the number of higher education applicants who preferred online courses (Behm, 2002; Ma et al., 2018). Particularly, separate calculations found that even before 2018, a global survey found that more than 25,000 young people who participated, more than three-quarters said they had digital learning experiences (Bannikova, 2022). Therefore, the turn to distance education and its permanent legalization was only a question of time; the pandemic has only accelerated this inevitable process. According to many researchers, in the future classical higher education and diplomas will be meaningless, and applicants for higher education will be able to independently combine the courses they need to master the necessary theoretical knowledge, practical competencies (knowledge skills and abilities). Most of such courses will take place in a distance format, and only those students who will have problems with motivation and self-motivation, lack the necessary self-organization, will return to the use of traditional training services (Buljung et al., 2022).

The peculiarities of distance learning organization in the professional training of information, librarianship, and archives lie in the unique blend of flexibility, technology integration, digital competence, specialized curriculum, collaborative learning, and lifelong learning opportunities. By embracing these peculiarities, distance learning plays a crucial role in preparing skilled and competent professionals who can thrive in the ever-evolving world of information management and preservation. Bondar et al. (2020) proved, that distance learning in these domains typically offers a specialized curriculum tailored to the needs and requirements of the information, librarianship, and archives fields. The courses cover topics such as cataloging, preservation, information retrieval, information literacy, digital libraries, and archival management. These conclusions are similar to Murphy et al. (2021), which proposed lifelong learning as an effective method of education.

At the same time, the emergence of automated systems variety, the modern information technology has influenced the need for specialists capable of using these technologies in their activities, which is reflected in the professional training of specialists in the library, information, and archival science. Such tendencies are similar with educational processes in other parts of the world (Magaji Abubakar, 2021; Murphy et al., 2021). In addition to the scientific part of library the science as an educational discipline, should also focus on the integration processes taking place in the library science plane or the overall academic context, through library science as an auxiliary subject aimed helping future professionals from different fields in the information search (Chandho, 2011). Consequently, a relevant European trend related to these processes is the development of an information culture and digital literacy among

teachers and students, as evidenced by the results of the study and the attention given to this competence in European universities.

## 5. Conclusions

Consequently, in European universities, there are certain peculiarities of training applicants for the specialty "Information, library and archival science". The curricula and practices analysis has shown that the digitalization of education and conducting classes in a distance form are relevant areas of development of the educational industry as a whole, as it allowed to circumvent many challenges and threats associated with globalization and society's informatization. The specialists work on the relevant training began a long time ago. Particularly, understanding the prospects for the development of distance education, since 2007 the European Union has funded research on the best models for the organization of such training.

The specialties of the library, information, and archival work are united in many universities. As the British experience has shown, training is focused on the formation of appropriate competencies that would be relevant for all these professions. Although the digitalization and state of the information infrastructure in the UK is much better than in many other countries, this experience, formalized in the form of a national standard, can be useful for other states. In France and Spain, distance learning problem has also received much attention. For example, in Spain for the introduction of distance learning have been prepared thoroughly since 2010. Common to the experiences of all the countries of the European Union is that the main emphasis was placed on the mastery of teachers and students of digital competence that has become an important component for the organization of training in information, archiving, and librarianship.

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**Informed consent**

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The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

**Data sharing statement**

No additional data are available.