

# Collaboration of the Central State Electronic Archives of Ukraine with Science Institutions and Universities in the Fields of Electronic Record Keeping and Education for Working with Electronic Records

*OLENA US, DR.*

Central State Electronic Archives of Ukraine, 24 Solomianska Str., 03110, Kyiv, Ukraine  
e-mail: e\_us@tsdea.archives.gov.ua

Collaboration of the Central State Electronic Archives of Ukraine with Science Institutions and Universities in the Fields of Electronic Record Keeping and Education for Working with Electronic Records

## *ABSTRACT*

The article presents the areas of cooperation of the Central State Electronic Archives of Ukraine (CSEA of Ukraine) with scientific institutions and universities to solve the main question of its activity - long-term storage of electronic records and modernization of education process for archivists and records managers. Due to the rapid growth of the number of electronic records and the necessity to solve the problem of their long term storage this theme is a topical subject for Ukraine and for the other countries currently. The author proposes the need for regular exchange of views of all stakeholders and improvement of the professional level of archivists and records managers through the deep mastering of the information technology.

La collaborazione dell'Archivio elettronico centrale dello stato d'Ucraina con le istituzioni scientifiche e le università nel campo della tenuta dei documenti elettronici e della formazione al lavoro con documenti elettronici

## *SINTESI*

L'articolo ha mostra le aree di cooperazione dell'Archivio elettronico centrale dello stato d'Ucraina (CSEA di Ucraina) con le istituzioni scientifiche e le università per risolvere la questione principale della sua attività - la conservazione a lungo termine dei documenti elettronici e la modernizzazione del processo di formazione per archivisti e scienziati documentalisti. Questo tema è attuale oggi sia per l'Ucraina che per gli altri paesi a causa della rapida crescita del numero di documenti elettronici e per la necessità di risolvere il problema della loro conservazione a lungo termine. L'autore conclude con la necessità di scambio di pareri fra tutti i soggetti ed il migliorare il livello professionale degli archivisti e scienziati documentalisti attraverso la profonda padronanza della tecnologia dell'informazione.

Sodelovanje Centralnega državnega elektronskega arhiva Ukrajine z raziskovalnimi institucijami in univerzami na področju hrambe e-gradiva in izobraževanja za delo z elektronskimi zapisi

## *IZVLEČEK*

Avtorica v prispevku predstavlja področja sodelovanja Centralnega državnega elektronskega arhiva Ukrajine (CSEA) z znanstvenimi inštitucijami in univerzami, z namenom reševanja osnovnega vprašanja, ki se nanaša na trajno hrambo elektronskega gradiva, ter posodobitev procesa izobraževanja arhivistov in dokumentalistov. Zaradi hitre rasti števila elektronskih dokumentov, in potrebe po rešitvi vprašanja njihove trajne hrambe, je ta tematika za Ukrajino, in tudi druge države, zelo aktualna. Avtorica predlaga potrebo po redni izmenjavi pogledov med tistimi, ki hranijo takšno gradivo in izboljšanje profesionalnosti arhivistov in dokumentalistov s pomočjo boljšega obvladanja informacijskih tehnologij.

Співпраця Центрального державного електронного архіву України із науковими установами та навчальними закладами з питань довготривалого зберігання електронних документів та підготовки кадрів для роботи із електронними документами

### СИНТЕЗ

В статті висвітлено основні напрямки співпраці Центрального державного електронного архіву України (ЦДЕА України) із науковими установами та навчальними закладами з питань основної діяльності архіву - довготривалого зберігання електронних документів та модернізації учбового процесу для архівістів і документознавців. Обрана тема є актуальною сьогодні як для України так і для інших країн світу з огляду на стрімке зростання кількості електронних документів та необхідності вирішення питання їх довготривалого зберігання. Автор дійшов висновку про необхідність постійного обміну думками усіх зацікавлених сторін, підвищення фахового рівня архівістів та документознавців через глибоке опанування інформаційними технологіями.

---

Today the problem of reliable storage of electronic records and electronic information resources is the most important and difficult for archivists around the world. After all, archives and also the Central State Electronic Archives of Ukraine (CSEA of Ukraine), have a responsibility to future generations for the preservation of records and information that is reflected in them. And while the methods for paper storage and access to them worked for centuries, in working with electronic records we have to solve new issues. Currently we are in transition stage from paper to electronic document flow, so for some time both paper and electronic records will be created. We have to solve the problem of reliable storage of paper and electronic records and at the same time we are adhering to the basic archival principle - the principle of provenance (the indivisibility of assets). CSEA of Ukraine builds its work with electronic records, based on the principles valid for paper records. This applies to the processes of appraisal and stocktaking of records and access to the records. But working with electronic records is quite different from the working with paper records, because electronic records exist in hardware and software information environment, and this affects the recording of information, its further storage and access to it. So we are facing to the difficult questions that must be resolved, namely:

- What kind should be the electronic records for long term and permanent storage?
- How to ensure the authenticity of these records?
- What is the composition of its metadata?, and many others.

It should be noted that working with electronic records requires from the personnel knowledge in the information technology at much higher level than the “advanced user”. At the same time archivist should have profound knowledge of Archival science and Records management. Information technologies demand from individual mathematical and analytical mindset and technical education, while archivists and records managers have the education in humanities. Combination of these demands is difficult but necessary task and requires the improvement of educational process to prepare future archivists.

Now CSEA of Ukraine employs archivists, records managers and IT professionals. Natural process of self-education and knowledge sharing between professionals from different fields is going directly in our Archive. As a result of this process, we can conclude that information technology should serve Archives and archivists to help them to solve the problem of the transition to working with electronic records. Such approach allows preserving of the basic principles of Archival science, to develop terminology from the position of Archival science and records management. This will help us to ensure the organization of work with records stored on different information carriers within the same process (archive administration).

Today, CSEA of Ukraine tries to build its work in difficult conditions of transition period from paper to paperless document flow. The CSEA of Ukraine is the only storage centre of electronic records of the National Archival Fund. The Archives provide receiving, record keeping and centralized government storage of the National Archival Fund, electronic information resources and other documents on electronic media as well as creates conditions for their usage. At this transition stage from paper to electronic document flow we are facing many difficult issues including scientific, methodological and personnel provisions. For the most effective work we co-operate with scientific institutions and universities. We are constantly training the staff for work with electronic records.

Cooperation is developing in two directions:

1. Cooperation with scientific institutions and universities to solve the problem of permanent storage of electronic records.
2. Cooperation with educational institutions for training of specialists for working with electronic records.

CSEA of Ukraine actively cooperates with leading research institution of Ukraine - Ukrainian Research Institute of Archival Affairs and Record Keeping. During the last years a number of important documents related to such processes as the preparation of electronic records for the transfer to archives, accession, stocktaking, storage and access to archival records have been developed.

The main documents, as a result of this co-operation, relate to the preparation of electronic records by provenance for archival storage. We proposed to create a paper copy of the records for the permanent and long-term storage, stocktaking of records on the principles of provenance, archival integrity and centralized storage in CSEA of Ukraine. These principles form the basis of the next scientific developments. In 2012 CSEA of Ukraine participated in the preparation of the draft regulatory act "Procedures for Working with Electronic Records and their Preparation for Archiving." This document defines important components of electronic records as format, content and structure of container for the storage of electronic records and exchange between institutions with different Electronic document and records management system (EDRMS). As the basic format for archiving the text electronic records the PDF/A format was suggested, and for the container -XML format.

Among the important areas of researches conducted in the CSEA of Ukraine, there is a work regarding the acquisition of electronic information resources. Last year the CSEA of Ukraine in cooperation with the Ukrainian Research Institute of Archival Affairs and Record Keeping completed an analytical survey that provides foundation for classification of electronic information resources as entities suitable for the National Archive Fund. There are as well some further ongoing studies aimed to develop procedures for electronic information resources selection, appraisal, sampling, accession, stocktaking and so on. CSEA of Ukraine constantly works on initiative documenting and creating of archival collections of web sites and storage of databases. The web site of the Archive contains the Online Exhibitions page [1] with materials of such archival collections of web sites as "The Chernobyl Disaster: 25 Years Ago", "Presidential Election 2010", "Euro-2012" dedicated to the European Football Championship in 2012 in Ukraine and Poland, and others.

The greatest concern of CSEA of Ukraine is that there is a huge number of electronic documents created without such tools as digital signature that could provide a proof of their authenticity [2]. On the other hand, taking in account that such electronic documents could contain important information, they should be preserved for posterity. First of all, here we think about electronic personal records of famous scientists and cultural workers of Ukraine. In the past, personal letters, manuscripts, notes, diaries of famous people etc. have been written on paper and after some time they often came into archives. Nowadays, personal records are created through the Internet and even most of manuscripts are already created in electronic form. In such circumstances, significant volume of culture heritage undergoes high probability of losing. Therefore, recent efforts of the Archive's staff are concentrated on work with such documents. There are some ongoing researches regarding co-operation with authors of the above mentioned electronic documents for selection, accession, preparation for permanent storage and ensuring their authenticity.

A fundamental research document for CSEA of Ukraine is the "Conception of Electronic Records Lifecycle Planning" defining all the processes from electronic records creating to electronic records storage. While working on the Conception, the Archive together with the Institute decided to create a unified information object model for electronic records. The model is based on using the single electronic documents' data format for EDRMS with XML technology. This model allows to combine all components of an electronic record in a single XML file, making processing and storage of the document's data within the bounds of EDRMS system easy as well as further record storage.

The CSEA of Ukraine and the Ukrainian Research Institute of Archival Affairs and Record Keeping co-operate actively in the field of digital signature suitable for long term electronic records storage, ensuring long-term storage of digital signature key certificates, etc. To develop this direction,

CSEA of Ukraine also supports close relationship with the Institute of Cybernetics of V.M. Glushkov - widely known in Ukraine and abroad as a research centre for solving fundamental and applied problems of computer science. In particular, the Institute of Cybernetics takes care of the problems of ensuring of electronic records authenticity by using a digital signature with formats standardized in Europe (ISO). This will ensure transparent circulation of legally significant documents between Ukraine and other states and foreign institutions in the future.

The next area of the Archive's work is cooperation with universities for personnel (records managers and archivists) training for working with electronic documents and records. Nowadays the archival branch highly needs specialists with knowledge in archiving and records management fields as well as in IT field. It should be noted that the interest and the need for specialists that combine knowledge of information technology with knowledge of Archival Sciences and Records management express not only archives but also institutions, government agencies and businesses. It is because EDRMS is implemented everywhere and the need for such specialists will only grow. However, the Archives is interested in evolving of such high-class professionals who would not only be able to create an electronic record in format required for archiving on the initial stage of the record life cycle but who also would ensure its integrity to the moment of selection for archival storage. As the Doctor of Historical Sciences, Professor Yaroslav Kalakura says [3]: "Archivist of the third millennium should become the carrier of new information technologies who can work with modern equipment and feel free in the world archival space".

For that reasons the CSEA of Ukraine keeps connections with the Institute of Special Communications and Information Security of National Technical University of Ukraine ("KPI") and with Archiving and Special Branches of Historical Methodology Department of the Faculty of History of the Taras Shevchenko National University of Kyiv. We employ the graduates of these universities. Students have a practice in CSEA of Ukraine; they are writing bachelor and master's work on the themes of electronic documents, electronic document flow, and electronic signature.

It should be noted that the higher educational institutions preparing students for Archival Science and Records management in Ukraine, give their graduates classical education designed mostly for work with traditional documents. The time has come to include relevant disciplines, courses, and workshops in the curricula and to involve IT professionals into teaching. And vice versa, IT professionals need to have some knowledge of Archival Science and records management, because it could be said with very high probability that in the nearest future they will have to deal with electronic document/record management system in the institutions where they would work.

In recent years there has been a tendency to open the new specialty's and courses aimed for office employees and archivists training to work with electronic documents and records. CSEA of Ukraine plays a considerable role in this process, Archive's experts regularly participate in workshops of various government agencies, expert roundtables, seminars, conferences, as well as consult developers of EDRMS, administration and teachers of higher education institutions. In addition, the Archive works closely with the media regarding the publication of articles and interviews in professional magazines, in particular sciences ones, and interviews on radio and television. All this contributes to the definition of the role of archives in the development of information society and promoting the archival profession in the today world.

One kind of cooperation and collaboration is to conduct scientific seminars and conferences. Recently CSEA of Ukraine with the Ukrainian Research Institute of Archival and Documentation Sciences, Institute of Cybernetics of Ukraine organized and an International scientific-practical conference "An Electronic Record: Current Challenges and Practical Implementation (lifetime of an electronic record)" [4]. At the conference, we were able to share our experience with colleagues from Russia, Belarus, Kazakhstan, Estonia and Lithuania.

Our experience in the terms of collaboration with a wide range of professionals in Archival Science, Records management, and Information Technology, including with our foreign colleges, allows us to conclude that the understanding of archival problems concerning the organization of work with electronic records is not possible without the constant discussion of these problems at various levels among like-minded specialists from around the world. This approach gives archivists an opportunity to organize continuous exchange of practical problem solving problems related to the archival storage

of electronic records and providing access to them. This allows the increase of the quality of archival work and professional level of archivists and to increase the role of of archives in Information Society, in particular, in e-government or in making some decisions.

## Bibliography

- [1] [http://tsdea.archives.gov.ua/en/?page=sections\\_](http://tsdea.archives.gov.ua/en/?page=sections_) (last visit on 01<sup>st</sup> June 2013).
- [2] *On Electronic Digital Signature: The Law of Ukraine from 22.05.2003 N. 852-IV*, Kyiv 2003, The Official Bulletin of Ukraine N. 25.- p. 1175.
- [3] Yaroslav KALAKURA, *Archival Education in Ukraine through the eyes of the Head of a university department*, Vol. 1-3, Kyiv 2002, p. 141.
- [4] *An electronic record: current challenges and practical implementation (lifetime of an electronic record)*: materials of International scientific-practical conference, Kyiv, 2012, <http://undiasd.archives.gov.ua/index.php?m=112> (last visit on 01<sup>st</sup> June 2013).

## SUMMARY

Cooperation in the field of training of professional archivists and record managers for the work with electronic records is one of the most important areas in the activity of Archives. It is because the further development of electronic records and informatization of Archives depends on the professional potential of young professionals. The key to the success can be found in understanding of information technology from the view of records management and archival sciences. We believe that a balanced approach to the information technology used in Archives will make the information contained in archival records more accessible for the wider community, expand the range of archive services and facilitate the provision of reliable information.

Submitting date: 31.03.2013

Acceptance date: 24.04.2013

