

Electronic Records and Archives: Situation in Archives of the Slovak Republic

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Rapid development in the field of information technologies brings also new tasks and problems for archives. Records in digital form created in different organization will be transferred to respective archives after some time. For the time being the Slovak National Archives does not keep any electronic records transferred to archives from institutions and organisations of their origin after a certain time period. However, new types of electronic records databases are created in archives itself as well. Because of their advantages from the access and information transfer point of view electronic digital information systems are more and more applied and use practically in every sphere of life. However, from archival point of view they represent a serious problem with regard to their low long-term permanence, rapid development in hardware and software fields and their maintenance without data migra-

A massive introduction of information technology in every field of human activities leads to a transition from industrial to information society. Reality of these previously only theoretical and philosophical considerations is presented nowadays by Internet technology and services. Internet and connected technology create an infrastructure for a global information exchange and enable creation and utilisation of information sources wherever it is and to anybody who has an access to Internet. The Internet multiplies positive but also negative possibilities of information using. As every tool - also the Internet can be used and misused as well. Unlike the "local" tools Internet is a "global" tool; thus its consequences are much stronger and massive. Moreover, everybody can expose on Internet any control-free information, which means that the reliability of information can be doubtful. The present state of using information and information technology in the society is characterised by disproportion between possibilities of technology and abilities of people. In general, there are two different views on this disproportion - technological and humanitarian. From the technological point of view - technology lagged behind the human needs; and contrary from humanitarian point of view - technology is far ahead and people cannot follow, understand, learn and use it. It is necessary to add at least the third aspect - moral and ethical. This one is manifested by trustfulness and reliability as well as moral and scientific needs or justness, validity and legitimacy of broadening and propagation of some type of information by internet^{1,2}.

The most important influence on information systems is created by the following facts:

- possible digitization of different types of classical documents (text, image, sound),
- formation of hypertext, multimedial and hypermedial (www) documents,
- standardization of digitized documents and languages to organize character forms of www documents (SGML, HTML, etc.),
- standardization of exchange, communication and query protocols,
- possibilities of displaying and accessing of different informa-

1. Š., Kimlička, *Systémovo organizačná rola knižnično-informačných systémov v informačnom procese*, in: Š., Kimlička, J., Steinerová, G., Žibritová, D., Katusčák: *Knižničná a informačná veda na prahu informačnej spoločnosti: filozofický, systémový a historický pohľad*. Bratislava: STI-MUL, 2000, p. 57-95.

2. J., Hanus, *Archives and Information Science - Archives as an Information Source*, in «Atlanti», 2003, n. 1-2 – CD ROM. International Institute for Archival Science at the University of Maribor, p. 71-78.

tion sources containing information about documents and also full documents,

- possibilities of interconnection different information sources and users wherever in the world³.

This is the reason why many organizations transfer their originally paper records into electronic / digital forms and thus “electronically born” records are created. Transfer of these records to the archives, their use and long term preservation represent main problems connected with electronic records from the point of view of archives.

In this connection the Report on Archives in the enlarged European Union⁴ deals also with the problems of authenticity and long term preservation of electronic documents and archives and proposes action plan e-Europe and other related activities at the European level in this field. In order to be able to solve the problems of authenticity and long term preservation of electronic documents the following actions are proposed:

- To set up a Working Group on measures for the authenticity and long-term preservation of electronic documents and archives.
- To develop the further procedures necessary for document authentication, including their legal admissibility, in the EU-Member States and EU-Institutions.
- To co-ordinate with DLM priority activities and to present the long-term preservation of electronic documents and archives as a special issue at the DLM-Forum, Budapest 2005.
- To carry out a study of the application of the electronic signature and other equivalent measures in the EU-Member States.
- To establish a concise project plan, including the concrete actions under points 1 to 4 above.
- To develop procedural models and facilities for the transfer of electronic documents and archives.
- To ensure that the DLM Working Group on new technological developments and their application to documents and archives management provides progress reports and feedback to the proposed official Archivists Committee of the EU-Member States and EU-Institutions⁵.

As far as this problem concerns it is concluded that in practice, the greater need of separating form and content of electronic documents and archives will imply that great weight is attached to the context of electronic documents and archives and to practical steps to reduce the loss of formal aspects. The description of the trend towards representation of the same content in many different forms is meant to show that the evidential value of digital documents and the authenticity of electronic documents and archives is not a fully clarified issue, but rather one that deserves further debate and interdisciplinary cooperation at the European level.

In connection with e-Europe action plan the following princi-

tion to new media and technology. The paper inform about situation in archives of the Slovak Republic in this field.

HANUS, Jozef – PÉKOVÁ, Monika, Documenti ed archivi elettronici: situazione negli archivi della Repubblica Slovaca. Atlanti, Vol. 17, N. 1-2, Trieste 2007, pp. 87-92.

Il rapido sviluppo nel settore della tecnologia informatica ha portato anche nuovi obiettivi e nuovi problemi per gli archivi. Documenti creati in forma digitale in differenti organizzazioni verranno, dopo qualche tempo, trasferiti ai rispettivi archivi. Al momento attuale l'Archivio Nazionale Slovacco non conserva alcun documento elettronico trasferito all'archivio da istituzioni ed organizzazioni. Comunque nuovi tipi database elettronici vengono creati negli archivi. Dati i vantaggi che presentano dal punto di vista dell'accesso e del trasferimento delle informazioni, i sistemi elettronici digitali vengono via via sempre più usati ed applicati in ogni settore della nostra vita. Comunque, da un punto di vista archivistico essi rappresentano un serio problema data la bassa durata della loro permanenza, il rapido svilupparsi di nuovi hardware e software, e la loro conservazione senza un trasferimento dati verso nuovi media e nuove tecnologie. L'articolo rende conto della situazione al riguardo negli archivi della Repubblica Slovaca.

HANUS, Jozef – PÉKOVÁ, Monika, Elektornski zapisi v arhivih: kako je stem v slovaških arhivih. Atlanti, Zv. 17, Štr. 1-2, Trst 2007, str. 87-92.

Hitri razvoj na področju informacijske tehnologije prinaša nove zadolžitve in tudi nove probleme, s katerimi se morajo arhivi spoprijemati. Dokumenti, ki jih je v digitalni obliki vedno več in se obenem nabajajo v različnih podjetjih, bodo nekega dne prerezali v arhivske ustanove. Slovaški nacionalni arhiv in tudi drugi slovaški državni arhivi zaenkrat, žal, nimajo originalnih elektronskih dokumentov iz ustanov in podjetij, čeprav se tudi v arhivskih institucijah pojavljajo elektronske podatkovne datoteke. To pa nastaja zaradi tega, ker imajo računalniški programi hitrejši dostop do in-

3. Š., Kimlička, *Knižnično-informacioné systémy na prahu informačnej spoločnosti*, in: *Knižničná a informačná veda XVIII: zborník Filozofickej fakulty Univerzity Komenského*. Bratislava: Univerzita Komenského, 1999, p. 7-31.

4. European Commission, *Report on archives in the enlarged European Union – Increased archival cooperation in Europe: action plan*. Elaborated by the National Experts Group on Archives of the EU member states and EU institutions and organs at the request of the Council of the European Union. Luxembourg: Office for Official Publications of the European Communities, 2006, 248 pp. ISBN 92-79-00870-6.

5. European Commission, *Report on archives in the enlarged European Union*, p. 133.

formacij in so vedno bolj uveljavljeni v vsakdanjem življenju, ker prehajamo k podatkovnemu in zato računalniškem zajemjanju podatkov in poslovanju. Res je, da so z arhivskega vidika nove tehnologije vprašljive, vsaj kar zadeva dolgo dobo hrambo, ker se računalniška tehnologija razvija skoraj prehitro in so zato večkrat vprašljive komponente hrambe in obranjanja. Tako ta razprava prikazuje položaj novih nosilcev informacij v arhivih Slovaške republike.

SUMMARY

A massive exploitation of information technology in every field of human activities leads to its application also in archives as an unavoidable process. The situation differs from country to country, from one archive to another one. The effort to establish common tasks and their solution in the field of problems connected with authenticity and long term preservation of electronic documents and archives and proposed action plan e-Europe on European level within the countries of the EU is obvious. Despite the fact that no Slovak state archives keep "electronically born" records new types of electronic records databases are created in archives themselves. Situation in Slovak archives in this field is presented. Archival heritage register comprises the register cards of all archival fonds and collections in the Slovak Republic and is updated at the end of each year. It is also available in electronic form and accessible to all archives via Intranet. For creation of electronic finding aids the Slovak National Archives and all state Slovak archives have been used for two years a program Pro.Archiv Inventories, Maps and Medieval Charters which are parts of the system supplied by a firm BACH Systems Ltd. The basic feature of the Pro.Archiv system is a modular building which enables successive completing according to archives demands. The Slovak archives are now faced to problem of digitization of old finding aids - about 4000 different types of inventories and catalogues in paper form created in the past. The problem has not been solved yet properly. Three digitization centres for medieval charters and maps and plans were established in Slovak archives with the intention to digitize at first documents up to 1526, which are - according to the Slovak Act on Archives - submitted only as copies and gradually

pal actions are proposed:

- To draw up a project plan to make available images of significant historical documents and archives from each EU-Member State and EU-Institution as digital content on the proposed Internet Gateway to archives in Europe (see chapter 2d), in support of the Lund Principles.

- To promote the development of cross-border digitisation projects by archives services in the EU-Member States and EU-Institutions.

- To raise awareness of other related activities in this field such as the Minerva and ERPANET projects among the archives services of the EU-Member States, so that they can take full account of this work in planning future digitisation projects.

- To ensure that archives services throughout the European Union make an appropriate contribution to the development and execution of future e-Europe Action Plans and similar programmes⁶.

There are many countries which already have some experience in transferring the "electronically born" records to archives.

However, digital conversion of archival material itself has advanced rapidly in the past few years. It promises to continue to expand its reach and improve its capacities. Digitization has proven to be possible for nearly every format and medium presently held by archives - from manuscripts to maps, and moving images to musical recordings. Digitization is no doubt the issue that more than anything else fascinates preservation managers in many institutions. The possibilities seem limitless, the advantages are obvious and "archives and libraries without walls" are seemed to become very close future. But such a virtual archives or library have a very real price. Managers of cultural institutions and those responsible for policy matters related to digitization often find themselves struggling not only to understand the new technologies, but also, and more important, to grasp the implications of those technologies and to understand what digitization of their collections means for their institutions and public.

This new technology and digitization often raise expectations of benefits, cost reduction, and efficiencies that can be sometimes illusory. One such false expectation may be that this new technique will solve all the problems connected with access to archives and fast use of them on one hand and - on the other hand - their preservation at the same time⁷.

The information can be provided on many various topics on different levels, in principle as:

- basic information about archives,
- information about archives activities and services, as well as legal regulations and legislative measures concerning archives,
- information about archival fonds and collections,

6. http://europa.eu.int/information_society/europe/2005/index_en.htm

7. Hartmut Weber, Marianne Dörr, *Digitisation as a Method of Preservation? European Commission on Preservation and Access*, Amsterdam: Commission on Preservation and Access, Washington, July 1997, 27 p.

- information about finding aids,
- full-text finding aids - static or interactive ones which enable search in finding aids,
- information about archival fond, sub-fonds as far as to the lowest possible level - in ideal case the inventory units⁸,
- full-text documents and images in electronic form (as the final step in theoretical and ideal case).

All these steps lead to the main goal - to find and retrieve proper and right information for a user⁹.

Situation in Slovak archives

For the time being neither the Slovak National Archives nor any state Slovak archives do not keep any electronic records transferred to the archives from institutions and organisations of their origin. However, new types of electronic records databases are created in archives themselves. The basic information about archives, its activities and services, archival fonds and collections, list of finding aids, as well as legal regulations and legislative measures concerning archives are provided on the web site of the Slovak National Archives¹⁰. It is the largest and the most important public archives in the Slovak Republic. Its aim is to acquire, preserve, professionally and scientifically process, and make archival documents originating from the activities of central government authorities of the Slovak Republic and its legal predecessors accessible. In addition, it provides storage of records of nation-wide importance, as well as those, acquired as gifts and purchases or as a result of deposit agreements. At the same time, the Slovak National Archives serves as the main science research and training centre in the Slovak Republic specialising in archive studies and preservation of archives¹¹.

Archival information system, according to the Slovak Act on Archives¹², is defined as “a complex of information about archival documents recorded in the archival heritage register, about their storage, content and access to them” and “consists of the Archival heritage register and finding aids instruments (guide, inventory, catalogue and register)”. Archival heritage register comprises the register cards of all archival fonds and collections in the Slovak Republic and is updated at the end of each year. It is also available in electronic form and accessible to all archives via Intranet. In very near future it will be accessible to public on Internet.

For creation of electronic finding aids the Slovak National Archives and all state Slovak archives have been used for two years program ProArchiv Inventories, Maps and Mediaval Charters which are parts of the system ProArchiv supplied by a firm BACH Systems Ltd¹³. The basic feature of the ProArchiv system is a modular building which enables successive completing according to archives demands. The base of the whole system is obligatory evidence of fonds and image deposit. The base is attached by the second level created by the program Inventories (Inventory Archives) and database do-

make access to them via their digital form. For the time being, the process is at its beginning.

8. *ISAD(G): General International Standard Archival Description*, Second Edition. Adopted by the Committee on Descriptive Standards, Stockholm, Sweden, 19-22 September 1999, Ottawa 2000.

9. J., Hanus, *Digitization of archives – routine or strictly selected process*, in: «Archives and Non-Traditional Carriers of Information. Papers of the International Conference, Warsaw, May 19, 2005, Toruń, May 20-21, 2005». Warszawa, Eds. A. Biernat, W. Stepniak, 2006, p. 213 - 225.

10. <http://www.civil.gov.sk/snarchiv>

11. *Slovak National Archives*. Compiled by SNA, Bratislava 2000, 23 p.

12. The Act no. 395/2002 on Archives and Registries and on the Amendments of Certain Acts passed by the National Council of the Slovak Republic on May 17, 2002.

13. <http://www.bach.cz>

cument files for evidence of special collections and fonds. The third level contains all supporting modulus which can work independently or via free links to lower levels. The first three levels create data and logical base of the system giving a possibility of free adaptation to any organization. The super-structure of the whole system is a central register of the archives. This part of the system makes possible the global search in processed fonds and at the same time it provides internal presentation of the archives via an Intranet. The top of the whole solution is public presentation possibility of selected data (Vademecum) to a broad community in the form of Internet¹⁴.

The Slovak archives are now faced to problem of digitization of old finding aids - about 4000 different types of inventories and catalogues in paper form created in the past. The problem has not been solved yet properly. An example can be the direction of French archives which ordered a methodological survey with aim to finalize a process for the digitization and the dissemination, on network, of enormous quantity of their non-printed finding aids. Five technical options have been tested: image format only; image format with indexation; unstructured text; text in acrobat PDF and structured text. In the light of completed tests, the price for capture by page and the volumes of files by page, the survey recommends, for the existing finding aids and according to the type of finding aids, three methods: the image format without indexation for finding aids of small volumes and non-readable by OCR; the image format with indexation for finding aids non-readable by OCR but of more than 20 pages; the Acrobat PDF format for finding aids readable by OCR¹⁵.

According to the above mentioned Slovak Act on Archives "the Archives shall only submit an original of an archival document for its study in exceptional cases, whilst it shall always submit a copy of an archival document, if it concerns an archival document created before 1526...". This was the reason why in the Slovak National Archives in Bratislava and State Archives in Levoča digitization centres for medieval charters and in State Central Mining Archives in Banská Štiavnica for maps and plans were established with the intention to digitize at first documents up to 1526 and gradually make access to them via their digital form. For the time being, the process is at its beginning and experiences from countries with developed systems in this field are welcomed and of great importance for Slovak archives.

Conclusion

A massive exploitation of information technology in every field of human activities leads to its application also in archives as an unavoidable process. The situation differs from country to country, from one archive to another one. The effort to establish common tasks and their solution in the field of problems connected with authenticity and long term preservation of electronic documents and archives and proposed action plan e-Europe on European level within the countries of the EU is obvious. Especially in the field of electronic records application and following of proper standards and unification is inevitable in order to be able to use and exchange the

14. Archivne Vademecum, Pro Archiv – Software pro komplexní zpracování archivního a spisového materiálu. Bach systems, s.r.o. 2002, p. 7.

15. Rosine, Cleyet-Michaud, *L'impact des nouvelles technologies sur la consultation des instruments de recherche*, in: «Atlanti», 9, Maribor, IIAS, 1999, p. 121-125.

information from different archives and countries.