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Archival Web Site. The Compatibility With a Computerized System for Electronic Management of Documentation

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According to the regulations On Particular Ways of Dealing with Electronic Documents Coming in to Public Administration Offices, the State Archive in Krakow has started to rebuild its web site. A system of electronic circulation of documentation will be installed and a new, functional web site will enable all those concerned to turn to the Archive for any matter, using only the electronic system. The new system will start in 2012, but now we have prepared all the principles for the system of circulation of documentation and the new functioning of the archival web site.

MAROSZ, Magdalena, Un sito web per l'archivio. Compatibilità con un sistema di gestione documentale. Atlanti, Vol. 20, Trieste 2010, pp. 323-333.

In accordo con i regolamenti sui modi particolari di gestione dei documenti elettronici in entrata negli uffici pubblici, l'Archivio di Sta-

The Law of 12 February 2010, Amending the Law on Computerization of the Subjects Performing Public Tasks and some other Laws¹ came into force on 16 June, 2010. The objective of this amendment, according to the expectations of Polish authorities, is to create a legal framework for the functioning of electronic administration in Poland. It introduces, among other things, the obligation of computerization of public records in the units of governmental administration and the requirement to allow access to IT resources for the people with disabilities. Due to the changes in the Law on Computerization, it has become necessary to harmonize the rules of submitting applications and requests in the administrative procedure and the ways of dealing with the documentation of the units of public administration. Hence the necessity to introduce changes to the Code of Administrative Procedure (KPA), in order to establish a uniform legal basis for the management of electronic documents. Changes in the KPA introduce, first of all: the possibility of dealing with individual cases through electronic document delivered by the means of electronic communication; the possibility for a public institution to ensure an individual submitting a letter in the form of an electronic document the access this document through the institution's IT system; removal of the obligation for an individual to provide to public institutions certificates of factual or legal status in a situations when these institution may obtain such data through the exchange of information - in an electronic form - with another public institution, or from public registers of other public institutions to which there is access in an electronic way².

The new regulations allow for the following ways (free of charge) to identify the person submitting the application in the form of an electronic document: 1. trusted profile ePUAP (Electronic Platform of Public Administration Services)³ - it requires identification of an individual during his single visit to the office. 2. a public entity provides the possibility to identify, in its IT system, through the use of an electronic signature, verified through a non-qualified certificate or, for example, using a user name and password.

The State Archive in Krakow established its electronic inbox on the ePUAP Platform in 2009. However, there has not been a widespread interest in this form of submission of letters to the Archive by citizens. Undoubtedly, such a situation is still influenced by the fact that, until 16 June 2010, this could have been done only by the

1. Journal of Law. nr 40, point. 230, from 2010.
2. Changes to KPA introduced in the Law on Computerisation.
3. The task of ePUAP portal is to provide information on public services by electronic means, see <http://epuap.gov.pl/wps/portal> (situation for 31.07.2010).

use of a paid electronic signature, verified by a valid certificate. However, for a long time we have been observing a steady increase in the correspondence sent to us via e-mail. Unfortunately, as the Archive is a state institution, not every case can be handled by us via e-mail. This sometimes has led to the necessity of changing the form of correspondence from the electronic to that conducted in the traditional way 'on paper'.

Knowing about the planned changes in the way of communication between offices and a citizen, finally implemented by the *The Law of 12 February 2010, Amending the Law on Computerization of the Subjects Performing Public Tasks*, we decided to develop a computerized system for electronic management of documentation (Polish abbreviation: EZD). In November 2009, the State Archive in Krakow applied to the Civil Service Department of the Prime Minister's Office for a grant for the construction of EZD and the Internet information service. We submitted the proposal within the project entitled *Modernization of management systems and increasing of the staff competence through the implementation of solutions aimed at the improvement of management processes in governmental administration*. In January 2010 we received the decision accepting our proposal and allocating resources needed for its implementation.

Presently, we are finishing work on the development of the assumptions for the system we plan to introduce on 1 January 2012. We are aware that, to constitute a system of effective support for the functioning of an institution, a system oriented towards the citizen, which should be its primary objective, the development of the assumptions and the implementation of the system itself should be really well thought out and should not be done in a hurry. We also use extensively the experience - both positive and negative - of other governmental offices. Unfortunately, none of the state archives has introduced the system of electronic management of documentation so far, it has only been done by the Head Office of The State Archives⁴.

The introduction of the EZD system will provide more effective and more efficient service for the citizens and it will improve internal communication within the Archives. The system provides the opportunity to submit any kind of correspondence via electronic communication channels, however not excluding the existing traditional way ('on paper'). The correspondence delivered to the Archive will be entered into the system (in the case of correspondence 'on paper' it will be converted into digital form) so that the further circulation of the correspondence could be made only through the system. We want to build a professional information service in the Archive, with a central system of the correspondence input/output in the form of electronic forms and implement the system of circulation and storage of electronic documents in conformity with the terms defined by the *The Law on Computerization of the Subjects Performing Public Tasks*.

The Archive's website will be a significant element of the new system. The current home page of the Archive⁵ does not perform a proper communication role and offers the visitors a limited range of services. It was created several years ago and, according to experts, its construction does not allow for easy and inexpensive updating of its

to di Cracovia ha iniziato a ricostruire il proprio sito web. Verrà installato un sistema di circolazione elettronica della documentazione ed un nuovo, più funzionale sito web consentirà agli interessati di navigare per l'Archivio per ogni motivo, utilizzando solamente il sistema elettronico. Il nuovo sistema inizierà a partire dal 2012, ma ora sono stati preparati i principi per i sistemi di circolazione della documentazione ed il nuovo funzionamento del sito web archivistico.

MAROSZ, Magdalena, Arhivska spletna stran. Združljivost z računalniškimi sistemi zaradi elektronskega upravljanja z dokumentacijo. Atlanti, Zv. 20, Trst 2010, str. 323-333.

Glede urejevanja nekaterih posebnih načinov obravnave z elektronskimi dokumenti v javnih upravnih uradnih, je Državni arhiv iz Krakova pričel na novo oblikovati spletno stran. Tako bo sistem uporabe elektronske dokumentacije nameščen na novo, kjer bo nova spletna stran bolj funkcionalna, saj nekateri zahtevki do arhivske dokumentacije ne bodo mogoči, ampak bodo selekcionirani. Novi sistem bo mogoče uporabiti v letu 2012, sedaj pa so v pripravi vse zasnove, po katerih se bo izmenjevala dokumentacija in nova zasnova spletne strani.

4. See <http://bip.ap.gov.pl/dokument.php?iddok=1287&idmp=1088&r=o> (situation for 31.07.2010).

5. See www.archiwum.krakow.pl (situation for 31.07.2010).

SUMMARY

The law of 12 February 2010, amending the law on computerization of the subjects performing public tasks and some other laws, came into force on 16 June, 2010. The objective of this amendment, according to the expectations of Polish authorities, is to create a legal framework for the functioning of electronic administration in Poland. This necessitates the introduction of changes to the Code of Administrative Procedure (KPA), in order to establish a uniform legal basis for the management of electronic documents in the institutions performing public tasks. Knowing about the planned changes in the way of communication between offices and a citizen, we decided to develop a computerized system for electronic management of documentation (Polish abbreviation: EZD) at the State Archive in Krakow. The introduction of the EZD system will provide more effective and more efficient service for the citizens and improve internal communication within the Archives. The system provides the opportunity to submit any kind of correspondence via electronic communication channels, however not excluding the existing traditional way (paper). The correspondence delivered to the Archive will be entered into the system (in the case of correspondence 'on paper' it will be converted into digital form) so that the further circulation of the correspondence could be made only through the system. The Archive's website will be a significant element of the new system. The current home page of the Archive does not perform a proper communication role and offers the visitors a limited range of services, therefore it requires a rather significant reconstruction, and above all adaptation both to new legal regulations and to the ever changing expectations of our users.

content. The website does not have the facilities for the visually impaired. For economic reasons, it is desirable to design the whole service from the beginning. This will enable us to equip the service with modern tools facilitating content management and it will make it possible to update faster data and to introduce new communication possibilities for users. The launching of new functions will be very important, such as the browsing of a part of the archival collection in digital form. The service will not only contain basic information on the functioning of the Archive, but it will also offer a broad range of knowledge on document management, on the search for necessary documents and it will provide educational elements as well. A novelty will be the ability to efficiently obtain necessary information and deal with cases without the necessity to physically visit the Archives.

The implemented system will cover the following functionalities⁶.

1. Within the scope of EZD, along with a system of electronic documents keeping:

- the possibility to apply to the Archive in an electronic form via electronic communication channels: e-mail, our own profile and ePUAP forms, the active forms of the Archive's web site,
- processing of the requests and correspondence submitted in the paper form into digital form in EZD,
- the possibility for the individual to control the process of realisation of his case at every stage (tracing the course of the case) and quick contact with the archival staff (for example, to convey additional information necessary for the proper conduct of dealing with the case),
- the circulation of applications within the organizational units of the Archive - effective management of information in circulation and of the access to documents in the structure of the whole institution through the appropriate use of the employees' working time through assigning them specific tasks and activities,
- the possibility to fully monitor the appropriate timing of handling the cases,
- a module handling the internal documentation of the Archive (e.g. contracts for the reprography of archival materials, conducting ongoing register, loan records of archival materials, periodic reports by employees, leave applications),
- a module which ensures the functioning of a company archive (e.g., forwarding of the documentation by organizational units to the company archive, lending of documents, destruction of unnecessary documents),
- the possibility to monitor and report on all activities in the organizational units of the Archive,

2. Concerning professional online information service:

- current information service on the functioning of the Archive (addresses, hours, rules, tariffs, information concerning the access regulations, news, etc.) both in Polish and English, with the possibility of expansion of certain elements of other language versions,

6. Assumptions developed by the staff of the State Archives in Krakow, responsible for the preparation of documentation describing the needs and requirements of the Archive in relation to the ordered system (Monika Andrasz-Mroze, Grzegorz Dąbrowski, Jacek Seweryn, Aldona Warzecha).

- the possibility to submit applications in specific cases through active e-forms,
- the possibility to search for information in the archival databases available on-line,
- the possibility to submit orders for archival materials to the reading room by filling the e-order
- (it is mandatory to fill it in personally, during the visit at the study room),
- digital library - the possibility to browse on-line materials available in digitized form (currently the digitization work continues),
- interactive service concerning the management of documentation, prevention and preservation of archival materials,
- exhibition (galleries) presenting archival materials,
- the possibility to sign up for courses organized by the Archive, as well as for chancery and archival trainings,
- the possibility to sign up for history lessons and archival presentations for students and pupils organized by the Archive,
- the possibility to order the Archive's publications on-line,
- a module to facilitate browsing for the visually impaired,
- e-learning platform (on-line courses: keeping of the company archives; sample lessons of history and archival presentations, e.g. in the form of outlines of lessons)
- additional elements, among others.: a virtual tour of the Archive (multimedia presentation); audio information on the functioning of the Archive with basic address and contact information, interactive maps localizing the seats of archival branches, contact with archival information via instant messaging like skype or gadu gadu
- transparent, clear and intuitive interface

Focusing now on the new site of the State Archive in Krakow, we want the contract to result in a modern, interesting and visually attractive website, with intuitive navigation. It ought to be built on the application CMS (*Content Management System*), enabling CMS administrator management of the website, catering for: updating, adding to content and graphics, enabling efficient website development by the widening of additional sections and sub pages, facilitating the adding and deletion of files as attachments readable by popular word processors as well as by allowing the adding of graphics and multimedia materials.

The website should be a tool for effective communication and a source of comprehensive information about the Archive, its activities and the content of its archival collection, plus giving the opportunity to browse archival resources in digital form.

The service is also to perform an educational role and be helpful in dealing with official matters and requests addressed to the archive, enabling the user to efficiently obtain the necessary information with the minimum of fuss and settle the matter on-line.

The starting point for the project⁷ is the existing Archive site (www.archiwum.krakow.pl) of which the design, colours, tones and graphics presently in use should be preserved.

7. The requirements concerning the new site of the State Archive in Krakow were prepared by Monika Andrasz-Mrozek, who is also responsible for the site.

It would, however, be necessary to:

- Develop the graphics to take into account the needs of the visually impaired.
- Plan for the future possibility of an increase in the scope of the site, e.g. the inclusion of other language versions.
- Rebuild the site map to increase its functionality and readability
- Combine into a whole the various elements of the website (articles, galleries, multimedia, permanent information etc.), the service is to be distinctive and easily recognizable.
- Design the name of the site, "www.archiwum.krakow.pl", in the form of a logo which would be disseminated to the outside of the environment
- Design the information architecture with a clear site structure, in accordance with the following list of sections:

	main menu	submenu	submenu II
1	Information	inf. General	
		organization	
		law	
		communications	
		events / chronicle	
		programs / projects	
		history	
2	The records	inf. General	
		database	
3	Sharing archives	rules	
		reading rooms	
		forms	
4	Supervision of company archives	inf. General	
		forms	
		Database Monitoring	
5	Personnel and payroll records		
6	Online exhibitions	thematic division of the exhibitions	
7	Branches long distance	Bochnia	inf. General
			history
			stock / inventory
			surveillance archive
		Nowy Sącz	inf. General
			history
			stock / inventory
			surveillance archive
		Tarnów	inf. General
			history
			stock / inventory
			surveillance archive
8	Releases		
9	Education, e-learning	Trainings and courses	lesson of history, shows education (e-learning)
		Education	
10	Tariff		
11	How to handle a matter/request		
12	Public procurement		
13	Contact		
14	Web links		
15	Site map		

- Provide the service with a useful and intuitive typography.
- Provide the service with up to five forms, integrated with the site, for the transfer of certain information from the Internet users to the Archive .
- Provide the major features available to the user via the original iconography.
 - Introduce the following user options:
 - change of text size (increase / decrease the font),
 - print option,
 - generate a pdf file for the possibility of saving on computer,
 - download the file, if it is attached to an article,
 - send the content via e-mail, in the form of the function “Send to a friend”, directly from the Web site, information about the existence of a given subpage.
- Introduce application-friendly links to help users find the site, as well as the use of links.
- Introduce a search engine which will enable the user both simple and advanced site search, including the logical operators “OR” and “AND”, the search of exact phrases in quotation marks, ignoring the size of the letters in the searched words.
- Introduce the possibility to send newsletter / bulletin, in both html and PDF for printing.
- Introduce a mechanism to display information about the service being temporarily unavailable due to technical reasons.
- Introduce the possibility to automatically create sitemap.
- Introduce a mechanism for automatic archiving of documents with the specified time of publication and possibility to use the archive (the administrator has the option to extend the decision on the timing, automatic archiving or deletion of articles)
- Introduce the possibility of playback of multimedia elements from the page, audio and video (used occasionally, the default video clips will be stored on the Youtube channel or on another server) and application for the viewing digital images and presentations.
- Introduce the possibility of using interactive geo-location mechanism (e.g., GoogleMaps, www.zumi.pl) allowing for the location of all buildings and premises occupied by the Archives.

In addition:

- The system has to carry out its tasks with a user-friendly interface.
- CMS system is to be adapted to operate an unlimited number of named users or separate accounts in the system.
- Administrative Tools (including CMS) are to be adapted to the specificities and needs of the service and most often repeated administrative tasks should be automated, also allowing for a further extension of service after completion of its implementation.
- Navigation from the controller based on the page view.

- Publication of material (e.g. article, galleries, new content in the menu) will be possible for the user in a maximum of 12 clicks on the site.
- The time between the publication of changes to their visibility on the site cannot exceed 2 minutes.
- It should be possible to view photos and the appearance of pages edited prior to publication
- It should be possible to change the graphic concept by introducing a system of graphic templates, the CMS not imposing any restrictions on composition.
- It should be possible to create templates for structural (location of the different elements on the page) and graphical user interface (suitable arrangement of graphical objects on the page).
- Concerning the creation and management of the repository files is concerned - there should be access to the files placed on the website, i.e. the ability to add new files and delete those unwanted, as well as to convert files which should be collected in a manner allowing free viewing, cataloguing and sorting.
- Insertion of clean HTML code:
 - insert and edit text
 - insert and edit tables add files and presentations
 - preparation of objects using Flash technology (with the possibility of defining their display)
 - addition and presentation of images and multimedia files
- Stichvorlage module is to enable at least:
 - add, change or delete items of page content,
 - bold, italic and underline a text,
 - change of size, colour and typeface,
 - change the size of spacing,
 - centred, justified, aligned left or right
 - paste without formatting,
 - create numbered and bulleted lists,
 - withdrawal of the last operation,
 - insert, edit and remove hyperlinks
 - insert graphics into text, set it into the text,
 - insert of horizontal line and set its properties (thickness, colour, style)
 - insert text in superscript or lower
 - search in the text,
 - editing in the source document.
- It should be possible to insert external elements (such as applications for viewing digital images, presentation and audio video Youtube).
- Granting access rights on different levels for those concerned:
 - CMS Administrator - the person responsible for managing the entire system, including creating, editing, deleting, publishing content, graphics, attachments, chapters, pages, adding and deleting users and assigning access rights to them,

- Editor - the person responsible for creating, editing, deleting and publishing content, graphics, attachments,
 - Sub editor - the person responsible for creating, editing, deleting of the graphics and attachments (without the right of their publication),
 - Reader - a person with access to view all content without editing or publishing.
- CMS system should be available from the level of a web browser (including operation from various web browsers).
 - It should be possible to secure the authorization of the entitled persons, who log on using a web browser.
 - It should be possible to secure the authorisation of persons entitled to vote, log on using a web browser
 - It should be possible to simultaneously use by a minimum of three people
 - There should be a blocking of editing a page, which is being currently edited by another person.
 - Support for versioning - any text on the administrative level should contain information about the user, time and changes in the text. From the user view, only information about the last update to be visible
 - Option to create self-service division and structure and change the order of sections in the menu display. It should also be possible to hide the department so that it existed in the structure, but was not visible on the site.
 - Option to set the order of display of the texts on the page.
 - The system should automatically resize photos to thumbnails with a minimum (invisible to the user) loss of quality.
 - The system should be able to crop the edited photos - after uploading of any photo, the system allows to select the frame and then resize it to the format defined in the layout page.
 - It should be possible to produce statistics: as a statistical tool, the system may use free services such as Google Analytics. The compilation of statistics - both for the entire web page, as well as its various sections and subpages should include information about external and internal activity, in particular:

External activity:

- number of entrances on the site
- number of individual users
- type of browser used
- location of users based on IP address.

Internal activity - activity data of administrators and editors and others from the editorial team (each page should have its editing history).

It should be possible to generate a statistical overview for selected period, day, week, month or year.

- Sharing web pages in English should be automatic if the user enters the page from outside Poland - based on IP addresses.

- It should be possible to publish content to a pre-set date and time.
- After adding visual material the article will be displayed on the page as a player video file or as a download.
- It should be possible to add, as a download from a page in the document formats: DOC, XLS, RTF, TXT, PDF, PPS, MP3, WMV, AVI, MPEG, GIF, JPG.
- Web archiving system should operate automatically with the information published and made available through it, and backup files on external media.

It is clear that safety must be ensured in the system: logging, data protection, access hierarchy, the hierarchy of rights, encryption, protection of personal data in the creation of electronic newsletters (newsletter). The system must ensure the necessary safeguards against unauthorized changes to pages, redirects, attacks and against the possibility of theft of data on a server. There must be security of authentication of persons entitled to vote, logging on with a browser. In particular:

- access via SSL encrypted connection
- providing support for browser certificates available (X.509 V3)
- possibility to select the level of security passwords used by users through:
 - enforcement of the minimum password length,
 - forcing the use of a “strong password” (password resistant to common attacks)
 - forcing a password lifetime
 - automatically block the account after a fixed number of unsuccessful logon attempts.
- System to have a record of all authentication attempts, which will be collected and stored covering the following information:
 - full date from the time
 - account name, which has been authenticated,
 - IP address from which authentication was performed,
 - domain name of address from which authentication was performed,
 - authentication result (success / failure).
- The system will have a record of modification made (with the option of filing by date and time, users, type of operation, etc.) of any party web site since its introduction into the system, the registry will collect and store, at least the following information:
 - full date from the time of modification
 - all operations performed on the elements
 - user name who made changes
 - brief description of the operation (e.g. publication, modification, unpublish, etc).

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