ADP in archives in the Federal Republic of Germany

by

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In the last twenty years in many archives of the world ADP has been introduced as a new tool for an archivist's work, in order to improve the archival services offered to researchers, to government and to the public administration.

Very different approaches of where and how to use ADP have been tried in various archives. There are many areas for ADP-applications covering most of the traditional fields of archival work. I should like to refer briefly to a survey, Michael Cook has given in his publication about Archives and the Computer in 1980 : ADP is used in records management, in archival management, in special archival projects like the construction of large-scale indexes or the control of microforms, in the management of archives offices and record centers or in the management of machine-readable archives.

Very different methods of applying automated data processing were used :

- Some archivists use given program-packages with only limited possibilities of modifications for the archival application these packages are used for.
- Some archivists use programs written in one of the standard languages according to the needs of their special archival problem.
- In most cases given standardized elements of programs, for example to read, to sort, to merge or to print data files offered in, program libraries' of computer centers are combined and used for archival applications, covering most of the needs of archivists.

Some archivists became specialists in programing by extensively studying one of the program languages to be used in non-numeric data-processing, other only delt with very basic information about how to use a computer leaving all the programing to non-archival programers. Some archivists concentrated on the problems of machine-readable archives with only limited interest in the use of computers in other archivals fields, others gave priority to these applications with nearly no activities to built up machine-readable archives.

To give you an example for the variety of the technical procedures used in archives I would briefly like to deal with these procedures in the state archives in the Federal Republic of Germany.
As far as these archives are concerned, we have results of ADP-projects not to talk about plans for future applications mainly in four archives :

1) The "Institut für Archivwissenschaft" in Marburg, connected with the Staatsarchiv Marburg, used punched cards produced by a punched-card machine bought about ten years ago. Using the computer of the university of Marburg earlier a Telefunken TR 440, the programs in Fortran IV were written by an ADP-specialist from the Marburg university, teaching ADP at the Institut für Archivwissenschaft. According to the technical problems you have with punched cards in non-numeric ADP, this has proved not to be a very effective procedure.

2) The Hauptstaatsarchiv Wiesbaden uses a typewriter with OCR-letters for their ADP-projects. The programing is done by a staff member of the state computer Center for the state Hessen

at Wiesbaden. Without doubt this is the cheapest way of using ADP and it is for sure an excellent possibility to begin with ADP, but the problem is that you have to rely on the availability of an OCR-reader and the programs for reading and correcting these optical characters in the computer center you use.

3) The Hauptstaatsarchiv Düsseldorf began with OCR-technique, but their possibilities have been improved by the availability at a display with an on-line connection to the state computer center at Düsseldorf offering an optimum of all ADP facilities one might think of. The programing are written by an archivist, who became a specialist in operating and programing. The close cooperation is possible in that case because the state archives and the computer center are built together on one site with a distance of some thirty feet.

4) In the Bundesarchiv we started with a type-punch, which did not prove to be very effective because of difficulties transferring data from the punched tape to magnetic tape and with the corrections. Since 1970 we rented a comparatively small computer system installed in the Bundesarchiv at Koblenz. It has been enlarged and since January 1980 it now comprises :

   - control processing unit with 512 KByte
   - two disk storage drives with 30 millions Bytes each
   - three magnetic type drive units with reading or writing possibilities for 1600 or 800 bpi
   - two operator's consoles, one as a display the other as keybord and printer
   - two printers, one with 300 lines/minute with upper ond lower case characters, the second with only upper case characters but 900 lines/minute
   - nine displays for data-typists and
   - one display with a slow special printer to write long and un-formated texts (finding aids publications, letters) in an excellent print quality.

We have a programer, who is not an archivist using Cobol or a special form of Assembler. With this system all archival ADP-projects can be handled in the archives; too, all procedures to control and copy magnetic tapes from the federal government and administration are possible.

Of course there are other archives or archival institutions in West Germany involved in ADP-projects, for example the archives of the university of Tübingen specialised in using ADP for publishing machine-readable files, or to mention the Zentralarchiv für empirische Sozialforschung at the university of Köln, the institution most advanced in handling machine-readable archives in the Federal Republic of Germany.

Let me return now to what I have mentioned at the beginning about the broad variety of procedures and areas of ADP-applications in the archives. Looking at the experiences of the last fifteen years one might clearly understand that the use of computers in archives generally has been accepted and

has proved to be justified, but that on the other hand there is no common opinion about how and in which fields of archival work computers are to be used most efficiently.

Also because of that reason I believe that the necessity of an extensive exchange of information and experience in these new techniques has been recognized already at a very early stage. Committee's on the national (for example in Great Britain and the Federal Republic of Germany) and the international level (ADP-Committee of the ICA) have been created to help the experts in ADP to communicate. In spite of that looking at the various plans and projects one might have the impression, that the wheel has been invented again and again, i.e. that very similar projects were started with different methods, mistakes who could have been avoided by referring to earlier projects, seem to have been made and time and money might have been spared in the planning and development of highly sophisticated projects, who have already been recognized as utopian by colleagues or already do exist in other archives. It might therefore be useful in international cooperation :

1) to think about a classification system for archival ADP-projects with detailed descriptions of projects to be regarded as typical and to serve as examples and
2) to discuss a standardized form of a description for archival ADP-projects to enable a comparative analysis of the project-examples mentioned.

To continue with I would like to explain briefly and to propose a form one could use for the description of an archival ADP-project. Reference thereby should be made to an article from Lionel Bell, published in ADPA (volume 1, number 3, from November 1975). A Survey of Archival Data Processing Applications in Great Britain. Parts of the form proposed here are taken from his project-descriptions. Another form with precisely the same aim was drafted by the Machine-Readable Archives Division of the National Archives and Records Service at Washington, which - as far as I can understand - concentrates to much on technical aspects of archival ADP-projects.

In case archivists could agree on this or a similar standardized form for the description of archival ADP-applications, this documentation should be published and updated regularly. It should cover all areas of ADP in archives and it could be organized according to a scheme I should like to propose.

This scheme should not be oriented according to technical aspects like the use of mini computers or computer centers, of programs, program-packages or information retrieval systems, but according to archival working procedures. Too, in this proposal I would like to give you a very preliminary and (referring to the limited time we have) summarizing survey about ADP in West German archives. Writing this survey I had some difficulties with the terminology. I would like to refer to the definitions given by Arie Arad and Lionel Bell in an article in ADPA (Vol. 2, No 3, August 1978).

1.- ADP in registries

At a very preliminary stage in the Federal Republic of Germany there are plans and projects to use ADP for the documentation of current files. We have for example a cabinet level office in the

Federal Government with a machine-readable documentation about every paper record kept in the registry. In this documentation fields of the machine-readable record are reserved for archival purposes for example for the reference number of the Federal Record Center at Bonn. When these paper records are transferred to the record center, we shall receive a copy of the machine-readable file and we shall complete the information in that file with data from the record center and the archives. I am sorry that I cannot provide you with printed examples because most of these paper records are still classified. Although ADP-projects in the relinguishing agencies are not archival projects, cooperation should be searched by the archivists.

2.- ADP in Record Centers

ADP is used in record centers to control the movement of records in and out of record centers. I might refer to the detailed description of some of these systems developed in Great Britain in chapter two of the excellent publication of Michael Cook.

In the Bundesarchiv a project was installed called "Aktenabgabedatei", some of you have already seen. It serves two main aims :

a) to control every "archival entity" in the federal record center,
b) to help the archivists in appraising and indexing these entities.

Examples from the Aktenabgabedatei :

copy I : Traditional list we receive from the agency together with the paper record. All data from that list are transferred into machine-readable form.

copy II : Description of the machine-readable record with its sixteen fields.

copy III : Printout in the sequence of the data capture.

copy IV : Printout for the appraisal.

copy V : Printout with the results of the appraisal.

copy VI : Printout of the file after being sorted according to the classification of the former registry system with the headings of this classification system.

copy VII: Printout of the reference numbers from the paper records to be disposed in certain years.

The second aim I have mentioned is to support the archivist in appraising and indexing only partly has to do with the archival work in the record center. This leads to chapter 3.

3.- ADP in Archives for indexing of archival materials

This is - as far as I can see - the largest field of archival ADP-applications. According to the level of the archival description I would like to propose a more specialized classification for that chapter.

3.1- ADP-descriptions on the level of archive groups, archive sub groups and archive series

System on that level have not been installed in the State Archives in Western Germany.

Not yet in machine-readable form we plan to publish very detailed descriptions of all archive groups in all state archives in the Federal Republic of Germany referring to the time between 1933 until 1945. It will probably be published in the next month, but I do not believe that according to former plans it will be transfered and updated in machine-readable form and enlarged to comprise other periods of German history, too.

Plans to establish an ADP-system on the archives group level exist for the holdings for the Bundesarchiv, but because of other priorities no progress has been achieved although we could have the benefit from the experiences with Prospec and NARSA - 1.

3.2- ADO-descriptions on the level of "archival units" (the smallest archival entity that is produced independently from the repository for use. Common archival units may be : a file, a roll of film, a document).

On that level there are so many ADP-projects in West Germany, that I may only name them without any explanation.

3.2.1- Indexing of paper records

Computer produced finding aids have been created

- for persons in official service in World War II in the Bundesarchiv with about 750.000 entries,
- for microfilms taken in all state archives from the most important holding as security copy (Bundesarchiv),
- for single case files from military courts in World War two (Bundesarchiv),
- for single case files from the Reichskammergericht from the 16. to the 18. century in the Bundesarchiv in cooperation with other state archives,
- for files from a hospital in Eberbach/Eichberg in Hauptstaatsarchiv Wiesbaden.

3.2.2- Audiovisual Archives

- for pictures of historical interest (Hauptstaatsarchiv Düsseldorf),
- for all movie films produced in Germany and abroad between 1918 and 1945 planned to be shown in German movie theatres in that period,
- for posters in custody of the Bayerische Hauptstaatsarchiv München and the Bundesarchiv.

4.- Computer-assisted type-writing

In the last four to five years very small and cheap computersystem were developed to write and correct long and unformated texts. These are type-writers with the possibility to store and print text, for example finding-aids, publications or letters, offering even limited possibilities to sort and merge. The Bayerische Hauptstaatsarchiv at München bought such a system some months ago.
In the Bundesarchiv, a small special program-package within the program-library of our computer

system offers these possibilities, too. One of the displays and one of the printers I have mentioned before are devoted to this working process.

5.- ADP in the management of archives

Most of these projects have to do with the documentation of researchers, their subjects and the files they have used.
There is one printout organized according to the alphabet of the researchers' name, another according to a classification of the subjects and a third one congruent to the second but without the names of the researchers. This printout is open to the public, the names had to be deleted because of privacy reasons. Another example is a regularly updated file with the telephone and room numbers of the staff members of the Bundesarchiv. Another system is planned to control parts of the budget of the Bundesarchiv. I believe that all ADP-projects referring to the management of machine-readable archive might be summarized in this part of the documentation, too.

6.- Automated research projects in archives

In the Federal Republic of Germany archives planned and organized research projects, which are not archival projects. They do not serve archival purposes only. As examples I would like to mention the Judendokumentation in the Bundesarchiv and the Hetrina-project of the Hessische Staats-archiv at Marburg.

I do believe that most of you know already some or all the projects I have mentioned. If someone would be interested, I am able to provide her or him with additional information. I personally would appreciate your comments on the questions :

- is it useful to built a documentation of archival ADP-projects; if yes,
- is the form to describe these projects suitable and
- does it give sense to organize the documentation according to the classification I proposed ?