

Report on the DAVID-conference: Archiving for posterity
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The conference “e-Archiving for posterity” took place on Thursday, June 26th, in Louvain. The aim of this conference, which was organized by the DAVID project ¹, was to bring together IT-staff, lawyers and archivists so they could each present their views on the problems surrounding electronic record-keeping and exchange thoughts on solutions for these problems.

During the course of their research, the DAVID-project ascertained on several occasions that different views on electronic record-keeping still exist between the different disciplines. This became obvious at projectmeetings when trying to determine the research questions with regards to the record-keeping of the electronic signature. But even expressions such as “record-keeping” and “metadata” led to confusion more than once. While someone with an IT-background starts thinking about safe and performant storage of bits and bytes, the archivist is set on the long-term preservation of the intellectual record. This is why the conference was subtitled “Electronic record-keeping and long-term preservation of digital data”. The immediate cause for the conference, was the presence of InterPARES researchers in Antwerp. Indeed, the DAVID-project hosted the International Team meeting of the InterPARES project which was held in Antwerp from June 23 until June 25 2003.

Luciana Duranti started the conference with an extended presentation of the central theme of the conference. After a general introduction into the problems concerning electronic record-keeping, Duranti explained how the InterPARES-project, of which she is the president, contributes from an theoretical research to practical solutions. She talked about the key words “authenticity” and “integrity” as defined by InterPARES I and how this resulted in the benchmark and baseline requirements for research to guarantee the reliability of electronic documents. (see <http://www.interpares.org>). Her point of departure is the tradition of the archivist as trusted custodian and the unbroken custody. The next speaker was Maarten Willems from the company HyperTRUST as a representative of the IT-industry. Willems presented a commercial archivingsolution as it is offered on line by his company. It is a centra-application based on the principles of the content addressed storage. The user sends a document which is ment for archiving to the on line service. For each document the user receives a clip which is based on hash-codes and timestamps and possibly some metadata. By using this clip, the user can access his documents from the on line archives. Jos Dumortier, president of the morningprogramme, remarked correctly that such an online service demands solutions for the management and organization of the users’ clips and that tight garanties are necessary for the long-term record-keeping of electronic records which are entrusted to the on line services. Moreover, such an application does offer a solution for the safe and performant fysical storage, but not for the intellectual record management of electronic records.

After the break, Jean-François Blanchette gave an overview of the technical solutions for the long-term record-keeping of electronic records. He found most of his inspiration in the general article by Ken Thibodeau (“Overview of technological approaches to digital preservation and challenges in coming years”, <http://www.clir.org>). Blanchette underlined that as far as archivists are concerned electronic record-keeping is more than the fysical preservation of bits and bytes and providing for the necessary software. Archivists need to preserve the conceptual or intellectual record. This point of departure affects the choice for a certain strategy. Long-term solutions such as standardisation, migration, Rosetta Stone conversion, VERS and emulation were presented. Pro’s and cons of every strategy were discussed.

Bull-consultant and specialist in the field of information security, Denis Pinkas dedicated his lecture to the long-term preservation of the electronic signature. The tone of his lecture was immediatly set when he started by pointing out that he disagreed with the way of thinking of InterPARES. He reacted

¹ For more inforamtion on the DAVID-project see F. Boudrez, *Electronic record-keeping in Flanders*, in: *Nederlands Archievenblad* (translation can be found on our website) and the projectwebsite (<http://www.antwerpen.be/david>)

against the InterPARES views: electronic originals can be archived, electronic documents can be archived without undergoing changes and it is perfectly do-able to archive electronic signatures for the long-term. Pinkas even went one step further by stating that the electronic signature is the only possible way to garanty the absolute reliability of electronic documents. Pinkas position holds some implications which raise questions on the practical feasibility of his solution. First of all the electronically signed document needs to be stored in an open and fully documented filesystem. Property bounded fileformats of which the specifications aren't released (for instance MS Word), need to be avoided. Secondly, it is necessary for the original technology to be available in the future, because electronic documents can not be converted in Pinkas' method. This limits the long term record-keeping solutions to building and maintaning computermuseums, emulations and viewers. The presentation raised a lot of questions with the attending archivists and in particular with the InterPARES representatives in the audience. But there was no time for questions immediatly after Pinkas' lecture.

Two more presentations were programmed after lunch. William Underwood, researcher at Georgia Tech and InterPARES researcher, presented the archival strategy Persistent Object Preservation (POP) as it was developed by Richard Marciano and Reagan Moore of the San Diego Super Computer Centre, in collaboration with NARA. The starting point of this strategy is an object-oriented approach in which electronic records are seen as a compilation of objects and their properties. When applying POP, the record is converted from its original format to a published archivingsformat. Information is added to the components with the aid of XML-tags. The relations between records in a sequence and between several different sequences are documented with the aid of XML Schemes. Underwood ended with a number of shortcomings of POP as a record-keeping method. Collections are made at the moment when they enter the archives while, from an archival point of view it is best to admit existing collections. The last speaker of the day was Yvette Hackett of the Canadian National Archives. She gave an overview of the practical experience they've gathered over the last decades. Her paper showed how electronic-recordkeeping works in practice and the large differences that exist between archival theory and practice.

After the afternoon break, there was time for a closing panel discussion with Peter Horsman as moderator. Horsman started the discussion with a good overview of the different opinions that were discussed earlier that day. He explored the question on how the reliability of records can be ensured. He distinguished two central elements: the electronic record on the one hand and the archivalsystem on the other hand. Horsman emphasised that the authenticity demands for electronic records need to relate to the function of the record and that the appropriate methods and means can only be applied keeping in mind the legal demands and the proces analyse. In this view it's impossible to promote one general solution for the problem of reliability. Horsman suggested that this could be were the archivalsystem should play an important part. The reliability of the archivalsystem can vouch for the reliability of the records which it holds. Afterwards the public asked questions to the panelmembers.

The sharp contradictions between IT-staff and archivists rose to the surface several times during the discussion. Once more, it became obvious that these differences find their origine in the different perspectives that exist in each discipline. IT-staff approach a record as an electronic object, and archivists, who have a background in archival science and diplomatic thinking, concentrate on the record-keeping of essential components which give the electronic document the status of a record. It didn't come to a real discussion between Pinkas and the people from InterPARES. The participants weren't listening to eachother and ignored the arguments of the other. A missed opportunity and a lot of questions remained unanswered. The conference did teach us that whithin the different disciplines thaught is being given to the problem of electronic record-keeping, but that a lot of differences remain.