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Austria

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With regards to the five action areas identified in the new action plan, i.e. Users and content, Technologies for digitisation, Sustainability of content, Digital preservation, and Monitoring, the Austrian National Report 2005 focuses especially on two sections: Users and content, and Digital preservation.

A. Users and content

Since the launch of the Austrian Initiative for Digital Cultural Heritage in November 2003 <http://www.digital-heritage.at>, a first inventory of digitisation initiatives and projects was completed by the end of 2005. As of January 2006, the database lists a total of 50 projects and 70 institutions that are involved in digitisation activities either as initiators, active partners, content providers, technology providers, researchers, consultants, or funding bodies. Although the database does not claim to provide a complete inventory of Austrian digitisation projects, it sheds some light on the current situation with regards to the availability of digital cultural heritage content on the Internet.

Who is involved in digitisation projects and initiatives?

The number of organisations actively involved in the creation and provision of digital cultural contents is small compared to the overall size of the cultural heritage sector.
According to the first report on the Austrian creative industries published in 2003[1], the cultural heritage sector comprises mainly the public sector of about 100 research libraries, 2500 public libraries, 200 archives and 1600 museums. In Austria, this public sector is a strong pillar of the creative industries which further comprises the private sector with about 20.900, mostly small and smallest companies (i.e., the cultural economy), and an intermediary sector of about 14.500 cultural associations and societies in music, theatre, as well as choral societies (i.e., mostly non-profit organisations). Besides the traditional stakeholders, i.e. archives, museums and libraries as major content holders, it is especially departments at universities, research institutions, foundations, consultants and companies specialised in digitisation services that are directly involved in digitisation projects and initiatives.

Who funds digitisation projects?

The national and regional public authorities are the most important funding bodies. From the 50 projects listed in the digital heritage database, 16 projects have been funded by the Federal Ministry of Education, Science and Culture and 12 projects by regional as well as local authorities.
Ten institutions carry out digitisation projects within their regular budgets. Not surprisingly, all of the listed digitisation initiatives concerned with audio-visual material fall into that category, being a strong indicator that digitisation in audio-visual archives is considered the only viable path to safeguard the highly vulnerable material from deterioration. For example, at the Austrian Broadcasting Corporation and the historic audiovisual archive Österreichische Mediathek digitisation has become an integral part of the institutional practice to keep audio-visual content accessible.
Nationally funded research programmes are yet another way to fund digitisation projects, and four digitisation initiatives are currently carried forward by private foundations and non-governmental organisations. However, only two digitisation projects are currently funded by private companies.

What kind of digitisation projects?

Typically, digitising any kind of archive implies dealing with different types of material and potentially may include various types of text documents, images, audio

material, film, etc. Accordingly, it is difficult to provide a categorisation of digitisation projects, and the digitisation projects listed under the Austrian Initiative for Digital Cultural Heritage are no exception. Nevertheless, providing a all but clean categorisation, the registered projects roughly fall into the following groupings:

Focus of project	Type of material	No. of projects
Text documents	Books, newspapers, letters, manuscripts, handwritten texts, biographical material, birth certificates, magazines, sheet music, etc.	16
Images	Photographs, print graphics, slides, architectural / building plans, watercolours, drawings, paintings, etc.	10
Presentation of large sets of data	Scientific databases, arts databases, inventories of complete works, archives of past events, bibliographies, etc.	12
Virtual exhibitions	Thematically focused virtual showcases, web presentations on specific topics, etc.	6
Audio-visual material	Audio and video recordings at risk	4
Cooperation	Cross institutional networks, focusing on information transfer and exchange of best practice knowledge	2

(n=50 projects/initiatives)

Availability of digital content

While it is difficult to provide a satisfactory classification of digitisation projects and initiatives, it is even more problematic to try to provide any figures on how much content has been digitised so far - for various reasons. First, although the public authorities are the primary financier of digitisation projects, there are no shared guidelines and reporting mechanisms for institutions who seek funding. Project objectives and indicators to measure project success are therefore left to the implementing institution, resulting in figures that cannot be compared. Hence, there are differences in what and how the results are quantified: Is it the number of digital objects produced? The number of digital images or data sets in a database? The individual pages of a newspaper or music score, or the complete works? Only high-resolution images or also low-resolution material? As a result, given the current level of information in the project inventory of the Austrian Initiative for Digital Cultural Heritage, it is hardly possible to provide an estimate on how much content has been digitised so far and if this material can be used and re-used by interested third parties. To overcome the lack of reliable data, there is an urgent need for common guidelines for digitisation projects and initiatives to report back some basic information on the results of their digitisation endeavours.

Are contents available online?

The majority of the projects registered under the Austrian Initiative for Digital Cultural Heritage make their content available online. The digitised contents of 30 projects are available either through searchable databases, through various different indexes, or simply by browsing available contents. However, a considerable number of projects (11) is not available online, but can only be used on site and under certain restrictions (for example, use is by appointment only, or restricted to certain user groups).
As in case of the Österreichische Mediathek, limited online access is partly due to the unclear copyright situation which currently allows the institution to only publish a selected 250 audio clips online, despite the fact that over 10,000 audio recordings have already been digitised. Furthermore, some databases, such as the database of cultural heritage sites and monuments, are for administrative use only, and access is reserved for the employees of the Federal Office for Cultural Monuments.

Who are the anticipated users?

About half the projects registered in the digital heritage database are targeted towards a general public, yet many initiatives – either through their thematic focus, detail, or structure – clearly aim at the academic and research community. Particularly, the large scale database projects in the science domain require in depth knowledge on taxonomies and organising principles to retrieve relevant information.

With regards to reaching an international audience, about a third of the online sites provide multilingual access to their contents. With English and French are the languages of choice to provide some multilingual content, additional languages offered at cultural heritage Websites include Italian, Japanese, Hungarian, Czech, Slovenian, and other Slavic languages.

Further information

Austrian Initiative for Digital Heritage
<http://www.digital-heritage.at/>

First report on the Austrian Creative Industries
<http://www.wko.at/kreativwirtschaftsbericht/kwb_2003.pdf>

Österreichische Mediathek
(at the Technische Museum Wien)
<http://www.mediathek.ac.at/>

Austrian Broadcasting Corporation ORF
<http://www.orf.at/>

B. Technologies for digitisation

A recent development in the area of digitisation technologies is the start of the Digitisation-on-Demand project, coordinated by the University of Innsbruck Library. Funded by the European Commission's *e*Ten Programme and with participation of 13 European Libraries from eight countries, the project investigates the market for digitisation-demand services for out-of-print text material as well as book and journals in the public domain. The objective is to deliver high-quality and fully searchable digital materials on demand (e-Books) and make them available in a distributed repository. Within 18 months, the project will show the feasibility of the service and its commercial viability based on a market validation with some 15 libraries. One of the critical success factors in this project is offering on-demand eBooks at an affordable price – an objective that has become more feasible due to new digitisation technology developed by a team of students at the Technical University Vienna. The highly productive book scanner "ScanRobot" allows to automatically digitise books in highest quality and 8-times faster than manual book scanning, due to its automatic page turning mechanism. Worldwide, there are only three companies offering fully automated book scanners, yet the Austrian invention, due to its modular construction, can cut costs by 50% per scanned page in comparison to its competitors. In the future, this technology will be available via Treventus Digital Solutions GmbH, a newly created company that starts operation in summer 2006.

Within the Digitisation-on-Demand project, this technology will be used to further bring down costs for eBooks printed on demand.

Further information

Digitisation on Demand Service of the University of Innsbruck Library
<http://www2.uibk.ac.at/ub/dea/dod/>
<http://www2.uibk.ac.at/ub/dea/eten/index.html>

ScanRobot
<http://www.tuwien.ac.at/pr/pa/pa_05_32.shtml>

C. Sustainability of content

Sustainability of content mainly concerns the economic sustainability of the *creation* and *maintenance* of digital cultural assets and services.

With regards to funding opportunities for the *creation of new digital cultural content*, the Austrian eFit-initiative, and here the eCulture Programme has so far been the most important national funding programmes to create digital cultural and scientific resources. However, funding provided under this initiative are one-time, project-based funds that do not

suffice to guarantee sustainability. This problem of project-based funding is also mentioned in the resolution on long-term preservation (see also section D, Digital preservation).

In contrary to the eCulture programme, other funding opportunities, such as "*multi-platform content applications*" initiated by the Federal Ministry for Economics and Labour, or the Austrian initiative to foster and support the multimedia sector and the creative industries, mainly focus on the innovative and intelligent *use of technologies* to make digital cultural contents better accessible. These programmes build on the assumption that there exists an abundance of relevant digital content – and not a lack.

At present, two funding programmes may be of particular interest for the cultural heritage sector. *Preparing for eContent plus* is a common initiative by the Czech Republic, Hungary, Slovakia, and Austria to inform and better prepare potential stakeholders about the EU's eContentPlus-Programme. As an accompanying initiative, it serves as a matchmaking-platform to support interested organisations and companies in developing and submitting common projects. In addition, the *ImpulsProgramm creativwirtschaft*, which is funded by Austria Wirtschaftsservice (a bank financing start ups), the large creativ wirtschaft Austria (Austrian Chamber of Commerce), and the National Endowment for Research, Technology and Development provides funding for innovative ideas in music, multimedia and design, with the overall objective to support the many small companies of the Austrian creative industry.

As far as *maintenance of digital content and services* is concerned, the Austrian Picture Archive <http://www.bildarchiv.at> provided by the Austrian National Library is currently the only online service that exploits cultural heritage content commercially. From its early conceptualisation, developing a sound business model – and not the digitisation of cultural content – has been the focus and driver for service enhancement. This strategy clearly pays off, as annual orders for historical photographs are up by 40% in comparison to "pre-online" times.

In the future, the results of the Digitisation-on-demand project mentioned above, may deliver valuable results with regards to the commercial viability of paid digitisation services in libraries.

With regards to the other projects registered under the Austrian initiative for Digital Cultural Heritage, access to cultural heritage contents is either free of charge or (high-quality) content is sold on DVD or CD-ROM.

Further information

Multi-platform Content Applications
<http://www.econtent.at/>

Preparing for eContent Plus
<http://www.econtentplus.net/>

ImpulsProgramm creativwirtschaft
<http://www.impulsprogramm.at/>

Austrian Picture Archive / Bildarchiv Austria
<http://www.bildarchiv.at>

D. Digital preservation

Strategic issues

In Austria, it is especially the Austrian National Library that drives the issue of cultural memory preservation at the strategic level. Prompted by the publication of the *Unesco Charter on the Preservation of the Digital Heritage*, the library in March 2005 organised a national symposium to raise awareness concerning the urgency of the matter especially with political decision makers. The overwhelming response of the more than 120 participants from many different Austrian institutions of the cultural and scientific heritage sector clearly signalled, that the long-term preservation of digital material is a pressing subject that ranks high on the institutional agenda.

The symposium resulted in the publication of a resolution on *Long-term Preservation in the Digital Age*, which was officially handed over to the political decision makers at the end of the event.

Stating that essential parts of our digital heritage will be irrevocably lost unless active and lasting measures are taken, the resolution – which was signed by the symposium participants – called for immediate action in line with the *Unesco Charter to safeguard Austria's digital scientific and cultural heritage*.

In particular, the resolution demanded to take the following strategic, legal, and practical actions:

1. to develop an Austrian strategy: all stakeholders at the national, regional and local levels should get involved to draw a concept for an Austrian strategy for the long-term preservation of digital heritage

2. to create a national cooperation platform: realising, that the issue of long-term preservation can be best dealt with by sharing information and best practices, the resolution suggests the creation of a cooperation platform similar to already established initiatives such as the German *Nestor* platform or the *Digital Preservation Coalition* in the UK. The main function of such a platform is to raise public and political awareness, to bundle and effectively disseminate information, to launch cooperative projects at national and international level, and to commonly develop standards and share services, and to make available best practice models and guidelines

3. to define responsibilities: to guarantee future access to our digital heritage demands a clear division of responsibilities between the cultural heritage institutions involved and defining the range of materials they should take care of. A pragmatic way to assign responsibilities would be to extend the current policies for analogue materials. Within an overarching cultural heritage policy, political decision makers are therefore asked to endow cultural heritage institutions with a plain mandate for our digital cultural and scientific heritage

4. to create legal prerequisites: this extension of the current mandate to cover not only analogue but also digital resources call for an adaptation of the current legal structures including, inter alia, media and copyright legislation. With regards to the latter and as already practiced in other EU Member States, the non-commercial, educational use of digital cultural and scientific resources should be considered

5. to safeguard resources: preserving our digital memory in the long run requires a serious financial commit. While cultural heritage institutions are willing to – and already do – bear some of the costs arising from managing digital material within their regular budget, securing sustainable access demands additional funds. Yet, the current practice of financing individual projects with a limited duration does not suffice to guarantee the necessary sustainability. With long-term preservation being a new and permanent task, the responsible authorities therefore need to realise that *additional* financial resources are needed.

The resolution suggests conducting a feasibility study to estimate the costs related to long-term preservation. Such a cost estimate needs to scale to the institutions' financial possibilities

6. to devise a research infrastructure and ensure training: despite the fact that some proven methodologies for long-term preservation exist, none of these methods is satisfactory in the long run. Due to the rapid technological developments, long-term preservation remains one of the critical areas of research. Thus, parallel to the legal, organisational and financial actions, the resolution calls for research activities as another pillar of a comprehensive Austrian preservation policy. Involvement in international research project should guarantee the successful transfer and implementation of latest research result in Austrian cultural heritage institutions and involvement in collaborative pilot actions and test scenarios. This transfer should be facilitated by intensive training programmes.

Unfortunately, the resolution so far has prompted only little reaction from the responsible authorities. A parliamentary request submitted in May 2005 caused only limited response. In fact, the official responses show that there exists only little awareness for the urgency of the matter at the highest political level. Thus, the initiative to put long-term preservation on the agenda of the political decision makers remains – even if very strong – a grass-roots movement that gave another strong signal in early fall 2005.
A working group has been set up with representatives from the Austrian Federal Chancellery, the Austrian National Library, the Association of Austrian Newspapers (Verband Österreichischer Zeitungen, VÖZ), the Association of Austrian Booksellers [Hauptverband des Österreichischen Buchhandels, HVB], the Federal Ministry of Justice, the Association of Information Economy, representatives of Internet Service Providers Austria (ISPA), members of the Constitutional Court, the Association of Austrian Librarians (Vereinigung Österreichische Bibliothekare und Bibliothekarinnen, VÖB), representatives of the Parliamentary Library, the University Library Vienna, and a publishing house.
The primary goal of the working group is to negotiate and agree on an amendment of current media

legislation to provide the legal basis to collect and systematically preserve born digital material. While the issue per se is not put into question by any of the workgroup participants, the difficulty lies with the details of such a regulation. For example, the questions on how to regulate future access and use, or how to deal with the challenge of hybrid and dynamic publications, still demand intensive negotiations.

Concrete projects

Meanwhile, the solution is to negotiate bi-lateral agreements directly with the publishers as done, for example, in the reUse project. This project, which is coordinated by the University of Innsbruck Library and funded by the EU's eContent Programme, intends to set up a preservation service for the digital copies of books and other print publications. The project centres on the idea that the digital master copies (i.e. the original files used for printing) of books, magazines, and other publications are valuable resources of highest quality that should be collected, made available and preserved by libraries. As such, libraries would function as trusted repositories and preservation archives for the digital copies of print publications, which would relieve publishing houses from the responsibility to take preservation actions themselves.
As part of the project, the consortium of national and university libraries, including the Austrian National Library, has commissioned a European-wide study to investigate the current practice of European libraries to collect and preserve the digital master files of print publications. The results of this study are expected for early summer 2006.
As digital preservation of digital heritage content is currently considered the most pressing issue were immediate political action is needed, it is also the focus of the international conference "An Expedition to European Digital Cultural Heritage: Collecting, Connecting, and Conserving?"
<http: //www. kulturleben. at/dhc2006/>.
This conference takes place in conjunction with the 10th Official Meeting of the National Representatives Group in June 2006, and is a major contribution to implement the *Dynamic Action Plan* during the Austrian EU Presidency.

Training and knowledge transfer

Long-term preservation is also one of the modules of a training initiative currently developed by the Austrian Computer Society (OCG) in 2005. An initial study funded by the Austrian Federal Ministry of Education, Science and Culture investigated the feasibility of implementing a standardised, system-independent on the job training programme for small and medium cultural heritage organisations.
Similar to the model of the European Computer Driving License (ECDL), the concept for a Cultural Heritage Digitisation Licence CH@DL was developed.
The on-the job training programme intends to give a systematic introduction to collecting, managing, using, and presenting inventories of digital resources and collections. Special attention was given, to offer knowledge that could be applied independently of the collection management and registration software packages used in the training programme.
Overall, seven syllabi were develop based on intensive research of similar training initiatives world-wide as well as an in-depth analysis of courses on digitisation. Furthermore, course material for three basic course modules was developed, the Introductory Module, the Digitisation Module, and, due to its importance, the Long-term Preservation Module. These three modules have been tested and validated in three courses in an Austrian museum with different participants falling mainly into two target groups: the actual users who carry out the work, and decision makers; in case of small institutions, these often coincide.
The test results were used to further refine and improve the different syllabi. The first drafts of these syllabi are made accessible via an online-Wiki, to encourage public comments and further improvements. They are available at:
<http: //www. langzeitarchivierung. at/wiki >
Similar to the ECDL-model, the Austrian Computer Society does not intend to offer these training courses themselves, but oversee curriculum and syllabi development as well as provision of course material. For 2006 it is therefore planned to find and establish partnerships with interested training providers and establish the CH@DL-concept. Further development of the syllabi will also be carried out in close cooperation with a working group on long-term preservation, which is currently established at the OCG.

Further information

Austrian National Library initiative:
Long-term Preservation in the Digital Age
<http://www.onb.ac.at/about/lza/veranstaltungen/unesco/index.htm>

Unesco Charter on the Preservation of the Digital Heritage
<http://portal.unesco.org/ci/en/ev.php-URL_ID=13366&URL_DO=DO_TOPIC&URL_SECTION=201.html>

Parliamentary request by Dr. Helene Partik-Pablé, Member of Parliament [2992/J (XXII. GP), May 11, 2005]
<http://www.parlinkom.gv.at/portal/page?_pageid=908,914187&SUCHE=J&_dad=portal&_schema=PORTAL#>

ReUSE-project
<http://www2.uibk.ac.at/reuse/>

International conference "An Expedition to European Digital Cultural Heritage: Collecting, Connecting, and Conserving?"
<http://www.kulturleben.at/dhc2006/>

Cultural Heritage Digitisation License CH@DL: first drafts of the syllabi for seven course modules available for discussion and commenting
<http://www.langzeitarchivierung.at/wiki>

Fact box: Current legislation for the legal deposit of electronic material in Austria

The legal deposit of Austrian publications is regulated in §§ 43, 43a, 44 and 65 of the *Austrian Media Act* from 1981. Originally only covering print publications, the *Media Act amendment* from July 7, 2000 extends the legal deposit to all sorts of electronic offline media published on physical data carriers such as CD-ROM; DVD, CD-I, disks, etc., with the exception of software products and electronic games. However, born-digital materials such as web contents, databases, and other publications that do not have a physical equivalent, are not yet covered by the legal deposit regulation.

Therefore, the Austrian National Library that is officially endowed with the task to collect, store and record all literature and other information carriers published in Austria through the legislative Act on Research Organisations (§ 28), pushes to change and extend the current deposit legislation to be able to systematically collect, archive and make available online publications. To that purpose, the Austrian National Library has developed a proposal for the extension of the current legislation, proposing a two-pronged system to ensure a complete as possible deposit of electronic online material: the obligation for individual publishers and media owners to deposit their published material (selected collection – "Anbietungspflicht", i.e. publishers are obliged to notify the archiving institution) and a largely automated harvesting of web content (automated collection), respectively. As automatic harvesting of online content touches on highly sensitive copyrights issue (as harvesting is another form of copying), special legislation would be needed to exempt public institutions obliged with archiving electronic material from the relevant copyright legislation.

On July 1, 2005, the latest amendment of the Media Act (cf. Media Act, §25 Abs. 5) became effective. It focuses particularly on the (re-) definition of important new concepts of media regulation such as website, media ownership and publisher, which will have an important impact on any future deposit regulation of the online resources.

Further information

Austrian Media Act
<http://www.austria.gv.at/Docs/2005/7/6/mediengesetz2005.pdf>

Amendment of the Media Act concerning legal deposit of electronic material (§§ 43a)
<http://www.onb.ac.at/about/lza/mg-novelle-2000-bgbl.pdf>

Executive order on the legal deposit of electronic offline media (Media Act, § 65)
<http://www.onb.ac.at/about/lza/mg-novelle-2000-verord-bgbl.pdf>

Latest amendment to the Media Act, $ 25, Abs. 5
<http://ris1.bka.gv.at/Authentic/findbgbl.aspx?name=entwurf&format=html&docid=COO_2026_100_2_154729>

E. Monitoring

Due to the lack of common guidelines, no systematic and continuous monitoring on digital cultural heritage initiatives and programmes is currently carried out on a national level.

1 Erster Österreichischer Kreativwirtschaftsbericht (2003), carried out by KMU Forschung Austria and the Institut für Kulturmanagement und Kulturwissenschaft der Universität für Musik und darstellende Kunst Wien, on behalf of the Federal Ministry for Education, Science and Culture, and the Federal Ministry of Economic Affairs, the Federal Chancellery, and the Austrian Chamber of Commerce.