
Calimera

Cultural Applications:
Local Institutions Mediating Electronic Resources

D4 State of the art report on national and local policies

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1.1 This document

This document is intended to be concise and readable 'State of the Union Report' in respect of the policy-level objectives of CALIMERA. It draws upon a number of other more extensive documents produced by CALIMERA and other activities within the framework of FP6 and beyond. These include:

- The report resulting from Monitoring the Oeiras Manifesto
- CALIMERA country benchmarking reports (37 were available at the time of writing this draft)
- CALIMERA report on business models (D2)
- CALIMERA Research Portfolio (D3)
- CALIMERA Draft Research Roadmap (D7)

(All of the above are available on the CALIMERA website at www.calimera.org)

- Minerva country digitisation reports
<http://www.minervaeurope.org/publications/globalreport/globalrep2003.htm>

Throughout this report, where examples referencing countries are given in brackets, further details can be found in the relevant CALIMERA country report.

1.2 CALIMERA

The CALIMERA Co-ordination Action funded under IST FP6, sets out to ensure that **local** cultural institutions right across Europe are well-placed to benefit from and contribute to the goals of the RTD framework programme 2002-2006 in enabling 'anywhere, anytime, natural access to IST services for all'. This can be achieved through provision of advanced and intelligent systems which improve access to Europe's knowledge and educational resources and generate new forms of cultural and learning experience, helping establish a stable pan-European infrastructure for distributed repositories of digital content and community memory within 5 to 10 years.

1.3 Local cultural institutions and IST

The goals of the FP6 IST cultural heritage research workprogramme are of key significance for local institutions (public libraries, museums and archives). Equally, these institutions can play a vital role in achieving those goals by applying innovative technologies and strategies from the priority research areas and transforming them into helpful services which can be easily used by ordinary citizens in their everyday lives.

If they are to be centrally involved in future IST calls addressing community-based cultural heritage services, local cultural institutions need to identify a solid basis for their own R&D priorities, backed by an analysis of the issues which deserve European support.

CALIMERA is monitoring technical developments and solutions already emerging from IST and national research and assessing their potential as widely transferable technologies for use by local institutions. It also aims to co-ordinate and sensitise the stakeholders including professional networks, national and local authorities and industrial players, laying the groundwork for participation in future calls

Building on FP5 – and especially the work of the PULMAN Network - CALIMERA is contributing to increased sharing of best practice, producing guidelines and benchmarking tools with a special focus on the needs of local archives and museums and addressing the needs of the end user by identifying a framework for focused research on ease-of-use and 'usability'.

This co-ordination and preparatory work is being underpinned by a high-impact dissemination programme targeted at decision-makers, managers and professionals, including a portal website www.calimera.org providing access to best practice, relevant research and innovative solutions.

There is also an important need to overcome fragmentation and support strategies of excellence which have impact at local level. This will require synergy with policies and internal co-ordination networks which are increasingly evolving from national and regional authorities across Europe.

Local and regional cultural institutions – libraries, museums and archives – can play a key role in making the eEurope initiative happen in the community because of their closeness to user requirements and their traditional strengths in supporting the educational process and access to information of all kinds.

National authorities or agencies responsible at strategic level for public libraries, local museums and archives in each country have a critical role to play and have been invited to nominate individuals to join CALIMERA as a reference group and to participate in developing a policy toolkit, culminating in the CALIMERA Policy Conference held in Copenhagen in on 20/21 January 2005.

It is also hoped that the CALIMERA digital guidelines, building on those developed by PULMAN and taking into account work done by projects such as MINERVA and DIGICULT, will provide a useful and influential framework for development of digital services in the near future.

2 The current policy environment

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The *Lisbon Strategy* and the *e-Europe 2005 Action Plan* continue to provide an important framework for the achievement of social and economic objectives where local services have a key role, for example through the initiatives on employment, social inclusion and the knowledge-based society, and within the Cultural heritage sector through the Lund principles on digitisation with their emphasis on improved applications and services

The European Union's own public image depends on its capacity to demonstrate the relevance of what it does for the ordinary lives of EU citizens by defining policies which take into account citizens' main concerns efficiently and accountably.

In her hearing before the European Parliament, Viviane Reding, the new Commissioner for the Information Society and Media, stated recently that "the EU's overall performance remains unsatisfactory when compared with the performance of other regions, in spite of the fact that the Lisbon Strategy provides the EU with strategic goals, governance tools and action frameworks, and in spite of certain successes". She pointed to the need for a mid-term review to boost the Lisbon Strategy and the early presentation of specific proposals for an e-Europe 2010.

The High Level Group chaired by Wim Kok

http://europa.eu.int/growthandjobs/index_en.htm has also called for more determined political action to revitalise the Lisbon strategy combined with a greater effort to engage Europe's citizens with the case for urgent change, highlighting the need to make R&D a top priority to promote the use of ICT in the Knowledge Society.

The focus is seen as switching to systemic reforms rather than one-off interventions in order to create a stable and predictable framework in which citizens and businesses can make use of the full potential of their creative energies.

In her answers to the European Parliament Ms Reding, the Commissioner responsible for Information Society and Media, referred to herself as Commissioner for "innovation, inclusion and creativity".

Innovation: to act as a driving force in the Lisbon process and for greater competitiveness;

Inclusion: to combat the digital divide and strengthen European identity and its cultural diversity, by means of media pluralism that will provide free expression for *creativity*

Participation: encouraged by Information technologies, to facilitate access to information and offer new ways of learning and communicating, encourage interactivity by motivating young people to express themselves and communicate

There is a need to roll-out modernized infrastructure and research, especially in the Information Society field. Ultimately, the development of new technologies must be to the benefit of citizens and of their welfare. It is therefore essential to move towards a more people-centred approach where technologies are used by and for citizens. Technical progress should have a cultural dimension and one that fosters citizenship. The new technologies must also help to better convey Europeans' images, stories and identities. Advances in television technologies (high-definition, interactive television and digital broadcasting) are seen as a leading opportunity

An important priority is also the full exploitation of the opportunities of the enlarged EU, through the quick integration of the New Member States in the Lisbon Strategy of their comparative strengths in the overall growth effort. Through new open access policies implemented since 1989 public libraries in particular have already demonstrated their ability to attract and serve a growing number of users (e.g. Lithuania)

However, the digital divide is seen as having both a territorial dimension (e.g. access in rural or isolated areas) and social one (e.g. access restricted by low income or low levels of education). A new communication on '*e-accessibility*' is expected to address two major challenges relating to the inclusion of all in the information society: the problems associated with the ageing population and the specific problems of disabled people.

The work and objectives of CALIMERA are closely interwoven with these goals. CALIMERA builds on the PULMAN Oeiras Manifesto for local cultural institutions which headlined the contribution they can make to: cultural diversity and understanding; social and economic development; lifelong learning; and citizenship and democracy. The success of e-Europe 2005: an Information Society for All depends greatly upon the contribution of local institutions working in and with their community in each of these contexts. The success of local cultural institutions depends on their ability to 'mainstream' their work within broader policy areas.

The ten points of the Oeiras Action Plan provided a framework for monitoring these developments. The Plan called upon member states to establish strategies, which utilise and develop the skills and infrastructure of Europe's comprehensive physical network of public libraries, archives and museums in order to develop their full social, cultural and economic potential.

3 Strategic development

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At European level, in the public libraries area, a nascent body National Authority for Public Libraries in Europe (NAPLE) exists to help co-ordinate the work of national authorities in that domain. Work is also now needed to develop this role and to establish mechanisms for co-ordinating and exploiting the full potential of local museums and archives and work across the three domains.

At national level, most countries in the EU now have at least a draft strategy covering at least one of the domains (public libraries, museums and archives) under preparation or already published, but the extent to which Information Society issues are addressed is sometimes limited.

Cross-domain strategies are not yet the norm. However, there are examples of clear progress which provide a benchmark for countries wishing to travel in that direction, for example the creation of cross-domain strategic agencies in Norway and the UK. Other countries such as Latvia and Sweden have been studying these models closely with a view to emulation and adaptation. Elsewhere (e.g. Ireland, Netherlands) there is no evident strong impetus towards merging the agencies responsible for each sector, but the separate agencies responsible for each domain meet regularly to discuss strategic issues (e.g. Portugal).

There are a number of other less formal models for strategic cross-domain co-operation in operation, such as 'CultureNet' projects, national digitisation Working Groups, consultation forums, 'mapping' activities and other cross-domain projects in areas such as 'searching' and digital preservation. These are perhaps most frequently to be found in the north-western region of Europe.

But it is far from universally the case that a single Ministry (e.g. Culture) is responsible for all three types of local institution. Effective linkage with strategies and funding streams for the Information Society, education and local e-government frequently demands complex engagement with and co-ordination between a variety of different ministries such as those for Information or Informatics, Telecommunication, Public Administration, Scientific Research etc. The scope of responsibilities of each is far from uniform across the member states, even as far as digitisation is concerned

In some countries (e.g. Germany) fundamental administrative patterns of decentralisation militate greatly against this type of co-ordination. Elsewhere (e.g. Finland, Ireland) a high proportion of local museums (and archives) is privately owned, raising additional complexities co-ordination, sometimes addressed in part through accreditation schemes.

This is particularly true of local archives and especially so in many New Member States (NMS) and candidate countries, where archives are, for traditional reasons, more prone to be seen and managed a single national network. Articulation and mapping of responsibilities for records collection and access between different levels of administration often remains an issue. Archives, are frequently the responsibility of Ministries other than Culture (e.g. Ministries of the Interior): their remit naturally straddles the administrative record keeping and e-government fields, as well as preservation and provision of access of content relevant to cultural heritage. On the positive side, there are rapidly increasing signs that planning in the archives domain is focusing on the development of client-oriented and electronic services including the implementation of web-based retrieval from archives information systems.

A substantial proportion of the NMS and candidate countries has until recently been (or is still) preoccupied with the establishment of basic legislation establishing the legal status of local cultural institutions and the responsibility of local authorities to provide these services following the period of transition post-1989.

However, since the turn of the millennium a clear trend has emerged toward the enactment of modern legislation expressing the growing demands of the modern world more clearly and in closer alignment with policies for an e-Europe. National – and in many countries, regional - Action Plans, for example to encourage the use of IT in public libraries and to support the development of the Information Society have become common.

The possibilities for kick-starting strategies – and funding - under the banner of national Information Society and/or national cultural programmes are illustrated in a number of cases (e.g. Netherlands, Poland). However, wide disparities remain in the priority given to IT funding within the individual institutional domains and the sector as a whole.

At local level, the work and most revenue funding of public libraries and local museums is, with very few exceptions, now explicitly devolved to local authorities and regulated by their development plans. Weakness in strategic planning for cultural services at local government level is reported by a number of countries, although in other instances responsiveness of local municipal authorities to national strategies is clearly demonstrated.

Low levels of funding to support content acquisition, creation and development, physical infrastructure and human resources remains a pervasive problem in a majority of the countries in the CALIMERA network. Any commitment to total provision of services free at the point of service is unrealistic for most countries and in some (e.g. Germany) the trend is in the opposite direction. The cost impact of introducing 'Public Lending Right' (Council Directive 92/100/EEC) is also a concern for some in this context.

The potential role of national libraries, archives and museums in a variety of functions such as providing guidance, standards, research programmes, centres of excellence, digitisation projects, making available local content and other support, is clearly identified and much discussed. However implementation, with some notable exceptions, is on the whole weak and in some cases reflects the general level effectiveness and resourcing of these national organizations.

The Oeiras Action Plan called for the development of effective partnerships between the local cultural heritage sector and other key economic and social sectors (e.g. education, employment, tourism, youth offending etc) to facilitate re-engineering of local services, as well as their cost-effective provision and management.

IST is helping to raise European citizens' quality of life e.g. by making the services offered by governments more effective and transparent, for example by placing on-line information and forms for citizens. **e-Government** is a major funding driver with huge potential for local cultural institutions to demonstrate their potential contribution to delivering e-government targets by integrating their services with mainstream services delivered by local, regional and national governments to the citizen. As such, it also provides a major potential catalyst for creative institutional re-engineering in the interests of the citizen. In some countries, (e.g. Luxembourg) e-Government is the main driver for cross-domain and cross-sectoral co-operation involving access to digital culture. It is also a potential missed opportunity if cultural institutions fail to take adequate action to demonstrate their value in this context.

There remains much progress to be made in exploiting the power of effective partnerships in support of strategic objectives such as e-Government, e-Learning and social inclusion, where local cultural institutions have a role to play but cannot succeed alone. Competition for limited funding is seen by some countries (e.g. Germany) as a deterrent to partnership. In many countries, interactive access to cultural content, especially cross-domain content is fragmented and remains at the local project or prototyping stage.

The importance of cultural content in education and the potential of its digital delivery for **eLearning** are increasingly recognised at strategic level (e.g. Netherlands, UK). For public libraries, in particular, the historic rationale and a reason for being was to provide a public education service (e.g. Austria, UK). This is now reflected in the emphasis given to supporting adult or 'lifelong' learning in many countries (e.g. Finland, Romania).

A high proportion of the users of public libraries throughout Europe are school pupils and college students using the facilities for study purposes. In some countries, public libraries are also specially funded to provide support services to local schools (e.g. Ireland, UK). In a few (e.g. Turkey) many public libraries also serve as school libraries.

In both of these contexts, public libraries have scored something of a success in supporting public acquisition of Internet skills (e.g. Latvia, Ukraine) and in some cases have established a role in assisting development of wider Information Society Skills, using both both semi-formal and informal approaches to learning. Museum education programmes are also well-established and are in some cases made available as web-based services. Local archives are on the whole closer to the beginning of the trail.

There is widespread recognition that digital cultural heritage materials constitute an important resource for research, education and creativity. Similarly, acknowledgement that the user does not really care from which institution digital content originates. The challenge of introducing more high quality art and culture into schools has been taken up in a few countries (e.g. Norway). But there remain relatively few instances of the effective packaging of cultural resources (especially cross-domain) for eLearning. This appears to be an area with major potential for collaborative development between cultural institutions and other institutions such as schools.

Another promising area is the provision of integrated online 'community information' services for citizens in support of their everyday needs for education, employment, healthcare, social services, leisure etc - provided not only by public authorities but also by local community and voluntary groups. Public libraries in a number of countries (e.g. UK) have played a leading role in constructing and delivering these services where they are now increasingly seen as an e-Government priority. This area represents a major opportunity to engage with senior policy makers on the potential to improve the range and quality of services and to implement the Information Society at local level, through the application of IST and the adoption of research results in areas such as web searching of heterogeneous resources, harvesting, metadata, controlled vocabularies and increasingly, applications of the Semantic Web.

A further well-established opportunity lies in the provision of access to digital services that provide access to content about places and people (especially family history) and in general support the notion of **cultural diversity**. Many digital services documenting local and family history are on offer and the potential for their interpretation and packaging as learning content is understood. However, strategies for co-ordination of public access across the variety of fragmented services is not yet elaborated - or only superficially so. Access to filmic records, music and oral history is limited and consensus on technical and standards issues across the content domains not fully achieved.

The deployment of what is broadly known as 'GIS', that is services which enable content to be discovered, represented and interpreted by place is also rapidly achieving prominence with the emergence of new location-based technologies and has enormous scope for exploitation by the cultural sector (e.g. Norway).

Investment in public library equipment, connectivity and staff skills have over the last 6-7 years contributed significantly to gains in public Internet availability right across Europe e.g. as PIAPs. Training courses for the development of IT and Internet skills for the general public are provided widely, although not universally, by public libraries. This is a success story, although the demand for these services in their current mode is likely to be time-limited and the need increasingly focused on specific, excluded groups of citizens and perhaps higher value, more specialized knowledge-based training services. In the shorter term there remains, across Europe, a need for more skilled staff, more online computer access points, and in most countries more broadband access in order for the full potential to be achieved.

Although valid data is limited, it seems clear that a rapidly increasing number of museums uses computers and the Internet, has a website and records collections electronically. However, there remain very substantial further inroads to be made, especially in the NMS and candidate countries. Digitisation is widely seen as priority, but many museums cannot yet offer access to their collections, either on the Internet or within their buildings and are not resourced to make rapid progress. Broadband connections are not the norm. Archives have shown a slower adoption of technology, but here also the signs of significant progress are in evidence.

There remains a significant focus and preoccupation within the sector, taken across Europe, on joint cataloguing, collection management and inventory systems and the development of single domain 'bibliographic' resource discovery networks. Each domain has a number of software systems for describing, storing and retrieving information about collections, with complementary administrative modules. It is not clear to what extent this focus has yet been effective in extending the user base for the described content, by contributing interesting and engaging content more widely accessible over the general web as opposed to simply contributing to the convenience of existing service users.

This activity is increasingly linked with the identification or replacement of integrated automated management systems to enable web-based retrieval of document records and associated primary content, IPR and licensing considerations allowing. However, much database-building still ends at the collection/item description level, and many databases with cultural content are only available offline.

On the other hand, portals providing access to cultural content are proliferating, whether local, regional or national in scope. The possible benefits in attracting *cultural tourism* are visibly at the forefront of these initiatives in many cases (e.g. France). Whilst many are still single domain, there are numerous initiatives to broaden the scope of content (e.g. Greece), a number of them drawing on EU funding from various programmes. There are several plans to introduce 'seamless' cross-domain digital libraries (e.g. Norway): these depend upon cross-domain co-ordination, reaching beyond major national institutions. Many successful portals include information on cultural events, attractions and heritage sites in addition to information on the content of cultural institutions.

The need for ease of content input for small organizations to enhance their contribution to portals is an increasingly recognised factor in infrastructural development. The increased availability (frequently as Open Source) of 'lightweight', easily customized, distributed content management facilities ('CMS'), not requiring advanced IST skills among staff and perhaps used in conjunction with automatic metadata creation facilities, is attracting increasing attention and has the potential to become an area in which roll-out and take-up can rapidly be achieved.

The need to enable individuals, whether adults or children, to contribute their 'stories' and to create content has also been highlighted by several projects, such as those funded under Heritage for All under FP5.

There is a widespread need to improve the technological infrastructure, especially for archives and museums. This will open new possibilities for creating services, which will enable users to access information from various sources and give them the opportunity to experience culture in new ways through new outlets and devices such as mobile phones/PDAs, digital TV and using peer-to-peer technology.

In some countries (e.g. Denmark, Netherlands, Spain, UK) substantial central funding has been programmed for cultural institutions and used to develop IT infrastructure, digitise content, develop search tools and train staff in support of digital service delivery. However, this is very far from universally true and even where it is so, progress is not even across the domains. But in most countries, paucity of access to modern infrastructure such as broadband, CMS, systems for publishing large amounts of information from large databases, multimedia content creation remains a major obstacle.

Further progress in the consolidation of infrastructural **standards** to ensure interoperability between domains and sectors is needed, although there has undoubtedly been an increase in the awareness of the co-ordination requirements that cross-domain developments impose. Although there are significant initiatives on standardisation of description and classification, technical vocabulary etc in the cultural sector, in general these have not yet been co-ordinated across Europe to the extent that there is adequate take-up among local institutions. For instance, museums of different types still use variable indexing terms and classification rules and standards, although there are examples of more standardised approaches (e.g. Norway, UK). Standards for archival description are beginning to be adopted at national level usually based on the ISAD(G)-standard established by the International Council on Archives (ICA).

This problem continues to inhibit the development of cross-border, cross-domain and multilingual access for the end user. As local projects have emerged to realise the vision of providing services to the end-user, which draw on data from across several domains, the extent of realisation of the importance of interoperability within the cultural domains has also grown and with it interest in standards and guidelines to accomplish programmes and projects based on best practices. Some countries (e.g. Denmark) have recognised the need for an increased focus on convergence towards common standards across the domains and have formed working groups to move toward common recommendations with respect to protocols for interoperability.

MINERVA has made recommendations for the adoption of the Dublin Core metadata set as a way to bridge the structural differences across sectors and for the adoption of XML and OAI-PMH and/or Z39.50. However, it appears to be increasingly important, in the context of improving integration between locally created and delivered services, that the cultural sector ensures harmony between its own standards development processes and those recommended or imposed by the growth of e-national interoperability frameworks for e-Government standards, now reflected in the launch of a European Interoperability framework <http://europa.eu.int/idabc>.

A key issue which needs to be tackled urgently is the widespread lack of procedures and incentives which are well understood for rolling out nationally or beyond successful 'best of breed' solutions and services implemented in one locality or under one project. Too often, gains in one locality are seen in a competitive light and are not shared in the public interest. The effective leveraging of Open Source-based solutions has significant potential to make an impact on this problem.

A stronger understanding and mapping of the benefits, need and modalities of partnerships and co-operation in the local community is needed, to enable public cultural institutions to come together with voluntary and private sector organisations which are skilled in information access, content building, digitisation and service delivery to sectors of the community and the economy, taking account of the differing economic national, regional, local, social, cultural and political environments across Europe.

The Oeiras Action Plan called on the cultural sector to implement staff recruitment and training policies, including adequate salary and conditions, which will provide the capacity and skills to deal effectively with user needs e.g. learning support and the use of Information Society Technologies.

Attainment of the goals of e-Europe requires advanced services offered by these institutions, which in turn require a high degree of specialized competencies within archives, museums and libraries. On the other hand, there are certain common needs such as increased competency in professional management, digitisation and presentation.

It is widely recognised that technological development has radically changed the role and responsibilities of staff working in local cultural institutions. In Belgium, the 2002 Library Legislation requires that Public Libraries evolve by 2007 to a 50/50 balance between librarians and technical staff in order to be able to meet the new challenges of the Information Society and changing user needs. In some countries (e.g. Norway) the library sector, in particular, has recognisably modified its recruitment and training policies in order to deliver a new range of services. The issue of better leadership for cultural institutions is also recognised increasingly (e.g. Netherlands).

Recruitment and retention of staff with ICT skills remain a more intractable issue for many countries, perhaps especially for the NMS and neighbouring countries with lower GDP, where uncompetitive salaries and inflexibility of pay and conditions are a frequently-cited problem, which contract-based grant or project-funding are sometimes used to address. In countries such as France and Spain the recruitment of staff for local cultural institutions on a single grade as civil servants through general and specialized examinations may further contribute to inflexibility.

Modalities of training provision and training providers vary considerably. The findings of CALIMERA's assessment of in-service training shows that the development of staff competencies in information technologies is performed variously by specialist Continuing Education Centres, large national or research libraries, system suppliers, universities, Library Associations or private sector training authorities. There is limited use of distance or e-learning programmes for in-service staff of local cultural institutions.

In a few cases (e.g. Austria), there are examples of initiatives to strengthen the local and regional cultural institutions by funding training courses on digital competences for operators and sustainers of regional and local museums. Elsewhere (e.g. Norway), dialogue is being strengthened with colleges and universities that offer relevant courses to professionals in libraries, archives and museums.

In some countries (e.g. Netherlands) the responsible national authorities have begun to establish centres of expertise in the fields of ICT and of staff development, exploring new models of services and support, cooperating with and rewarding local and regional institutions which are at the forefront of new developments. Elsewhere, (e.g. Denmark, UK) national and regional training and continuing education programmes involving ICT have reached all libraries. In some countries, (e.g. Hungary), training and re-training requirements for library staff are newly regulated by the government.

There are now very many local or regional digitisation initiatives based on the content held by local cultural institutions and involving their participation, including major national programmes to support this such as those in France, Greece, Ireland and the UK. However, fragmentation and lack of service co-ordination remains a key problem although in a number of cases 'cultural portals' to enable user access are in planning or implementation.

It is well recognized that content that is local in nature and of specific interest to the inhabitants of a particular region acts as an important stimulus to attract new users and late adopters to the online medium, with a significant potential impact on general Internet use and the 'digital divide'. Local content can also support the *eContent*, commercial, creative, tourism and educational sectors and enable the development of local and national history and culture websites which enrich the quality of life of all citizens and support social inclusion and life-long learning.

Archives legislation increasingly requires the documentation of national history: latterly more comprehensive records management development plans have brought into play common principles, rules and standards, guided by e.g. the ICA recommendations and the European Union's and European Commission's policies on information policy and records management.

The preservation of digital scientific and cultural sources is another topical and urgent issue in some cases (e.g. Netherlands), where formulation of selection and accessibility criteria for the preservation of material that was originally digital is seen as priority.

However, even in the most advanced countries, an enormous amount of information about collections is stored in internal databases which are not accessible on the Internet, especially through item-level searching. Although an increasing number of institutions have some information on the Internet it is often very partial, not always updated and not usually in more than one language. A few larger institutions have developed more advanced services, with a large variety of content and types. Typically, these services have a very high number of users/visitors.

Initiatives in virtual exhibitions are also increasingly numerous but also somewhat unco-ordinated. At the other end of the scale, very many smaller cultural institutions, often run on a volunteer basis, at the local and regional level do not possess a PC on which to document and describe the cultural artefacts in their collection.

Some larger municipal and 'county' archives have developed information rich and user-friendly services on the Internet, containing church records, censuses etc. These services often have a very large number of visitors with an interest in family history (genealogy), including those from the 'European diaspora'. There are also instances of enabling the user to personalise content and manipulate images interactively. These services remain in the main sporadic, without co-ordinated roll out plans and therefore difficult to replicate

A new economy is also emerging as local content and local identity speak to a global audience ('local-to-global') offering a good opportunity to enhance user experience in order to unleash a new economic potential. Such a scenario will lead to stronger involvement of ordinary citizens in the creation of business opportunities drawing on local content for culture, leisure, sports, travel etc. moving toward an endgame where every home and vehicle in Europe is able to access repositories of the heritage of their regions, towns and villages.

IPR continues to be a major issue for many institutions involved in cultural dissemination. While current legislation to a great extent has succeeded in securing the digital rights of IPR-holders, the problem of how to provide the public with reasonable digital access to culture and heritage without violating such rights remains an issue. Although the issue is complex and has a strong political dimension, efforts are being made to aid the institutions in navigating the current legal obstacles. At European level, the launch of a programme to promote the availability of 'public domain' content and fair use approach to its exploitation is currently under active consideration.

8 Market Research and evaluation

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The baseline for measuring progress towards achievement of the *e-Europe 2005 Action Plan* in the local cultural sector is only now being put in place in a few countries. The statistical basis for comparison is still notably weak, although there are some web-based advances at national level (e.g. Spain). Public library statistics for libraries are stronger than those for archives or museums, although some important initiatives e.g. LIB-ECON have fallen into disuse recently. There are few facilities for comparative benchmarking. The statistics which are maintained infrequently address effectively the measurement of digital services. Methodologies for assessment of impact are still at a very early stage and there is little consolidation, although a few notable initiatives exist, for example in the area of measuring the impact of cultural e-services on learning (UK).

It is common practice for national or local questionnaire surveys to be conducted to establish user and/or non-user attitudes to library services, cultural practices such as reading, museum visits and other leisure activities. However, driving service development according to changing user needs is still not a fully-established practice in Europe's local cultural institutions, even where some standardised mechanisms for user needs research do exist. There is very limited evidence of work on the usability of digital services and/or IT solutions, an area in which CALIMERA is seeking to develop a working framework for the cultural sector.

The Oeiras Action Plan called on responsible agencies to propose research and take-up activities at national or European level based, where appropriate, on partnerships with support organisations and private sector companies including those skilled in information access, content building and digitisation.

Taken across Europe the availability of research and innovation programmes relevant for local cultural institutions is patchy and on the whole, weak. Most archives, libraries and museums are small institutions, which do not have enough human or financial resources to undertake academic research.

In a few countries, government-supported agencies conduct or fund basic as well as applied research in the cultural field and (e.g. Denmark, Ireland, Russia) operate as a driving force behind technological development in research, concentrating on IT solutions. Others (e.g. Belgium, Czech Republic, Norway) have the establishment of such support as a goal or under consideration or have recently launched new R&D Centres for one or more domains (e.g. Estonia) with international research co-operation among their goals. Elsewhere, (e.g. the UK) previous specialised research programmes have been discontinued and the focus switched to commissioning strategic short-term research: funding for more basic research must be obtained in competition with other fields e.g. through academic research councils.

There is very limited evidence of the take-up of research conducted in other sectors e.g. by universities. These indications and the responses from most countries seem to underline the continuing importance of the European Union's IST research programme for local cultural services. It has been remarked e.g. in Germany, although there is no shortage of money to promote research projects, these projects seldom get beyond the project state and almost never involve cooperation with businesses. Hence the long-term development which is desired from such projects only rarely materializes.

In some countries (e.g. Norway) there is an increasingly articulated need for an increase in research activities in the archival domain. There is also a strongly felt need for more research to improve and evaluate the impact on users of digital services delivered by local public libraries, museums and archives.

In addition, there is a need for the end user to become more visible in the context of research priorities. A vital link in the chain involves the experience of the end user of the services of local cultural institutions. Despite the gains made in Internet access to date, many people still experience resistance to use and find unsatisfactory the usability and accessibility of many technical solutions and interfaces. This concerns issues such as better access to local content, for appropriate technical solutions for interactive participation, the overcoming of language barriers and for easy-to-use features and interfaces for ordinary people through a range of devices which they like to use.

Equally, if local institutions are to deliver to their potential, they have an enormous need to adopt and benefit from the goals of research programmes. These include the improvement of the accessibility, visibility and recognition of the commercial value of Europe's cultural and scientific resources, lower barriers for institutional investment in digital preservation, reduction in the cost of digitisation, creation of advanced interactive digital services and better use of high bandwidth. Local institutions will be central players in the creation and delivery of access to environments for intelligent heritage and cultural tourism.

CALIMERA has been tasked with working towards an outline for future research in this field, looking towards the remainder of FP6 and FP7ye FP defining its role "to ensure better use of technology so that ordinary people can participate more actively in the information society through the work of their local cultural institutions, such as libraries, museums and archives mediating services."

The CALIMERA research road map is derived accordingly from an end-user and professional user perspective rather than one of IST research i.e. it is user rather than technology led (although it is of course informed by and attempts to map user requirements to IST research). Overall the watchwords for local cultural institutions are assessed as follows: *citizens / creativity / learning / communication / involvement.*

10 Conclusion and outlook

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Over the last decade, it can be said beyond doubt that the social role of local cultural institutions of all kinds has changed and the level and type of professional required has diversified. A shift from the use of information on traditional paper-based carriers to electronic formats has taken place. The implementation of technology has brought about the modernisation of basic work processes and widened the range of services and access. There is closer intra- and inter-domain co-operation both at national and international level. It is no longer always easy to draw clear boundaries between archives, libraries and museums in terms of digital content provision.

Looking into the future, memory institutions such as libraries, museums and archives are adjusting themselves to the digital age. Web-based services have been expanded, remote use of online catalogues and the accessibility of digitised heritage have all been improved.

The task now is to create and promote new services which reach and motivate more people. New services require new tools, many of them ICT-based - and above all a new attitude.

The expected impact of the process supported by CALIMERA will lead to:

- a greater feeling of local identity in Europe linked at the same time to increased exploration of remote resources in the same area of interest;
- promotion of social and cultural inclusion e.g. through access to local, ethnic and linguistic cultural heritage, family history, immigration history, and current issues related to the lives of local populations in local communities;
- an ever more comprehensive living archive of local activities, occupations, interests and cultural attractions;
- enhanced citizens' ability to link up the satisfaction of their present needs and interests with an awareness of their historical and contemporary contexts, whether in an environment of education, e-government, recreational, domestic life or work;
- catalysing the overall development of the information society by concentrating on the contributions of ordinary people from all walks of life;
- addressing the challenges of the digital divide by improving the delivery of services, tackling educational disadvantage and helping deal with demographic changes.

Although some EU countries are developing forward-looking cross-domain agendas and strategies for digital culture and education, there remain substantial disparities in terms of: administrative responsibility, policy formation, resource availability, professional awareness and acceptance - and consequently in the development of service applications.

To remedy this, a more robust and widely-adopted framework, underpinned by an active research programme, is needed for citizens and their local institutions (including public libraries, museums, archives) to participate actively and interactively in building the digital heritage of their communities.