



Our Cultural Heritage: A Strategy for Action for Public Libraries



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Our Cultural Heritage: A Strategy for Action for Public Libraries

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Foreword

Cultural heritage institutions in Ireland have a long tradition of collecting and preserving material which relates to our cultural history. Access to this cultural heritage, both local and national, enriches society through nurturing creativity, imagination, a sense of place and a sense of pride in our past.

The Irish Government is committed to supporting this tradition and ensuring that future generations are enriched by our cultural legacy. The *Branching Out* report set out a challenging agenda for the Department of the Environment, Heritage and Local Government and library authorities in relation to developing the library as a centre of culture. A key element of this agenda is the digitisation and online publication of significant holdings in the public libraries. This would allow access by all to a rich vein of exciting historical material.

The *Branching Out* Steering Committee set up the Cultural Heritage Panel to investigate how this could be achieved. The Cultural Heritage Project report and website are the result. The project results provide a strategy for the development of this cultural resource to ensure that the cultural history of Ireland is accessible to all.



Martin Cullen, TD

Minister for the Environment, Heritage and Local Government



Executive Summary

Introduction

The Cultural Heritage Project team has developed a portal website that showcases the potential for users to access the cultural history of Ireland based on the local studies collections of public libraries, local museums and archives. The project, established by the *Branching Out* Steering Committee through its Cultural Heritage Panel, was carried out in 2002/2003 under the management of An Chomhairle Leabharlanna, with the support of the Department of the Environment, Heritage and Local Government and of The Heritage Council.

This report details the work carried out, the findings and the recommendations of the Cultural Heritage Project.

Aims and Objectives

The core objectives of the Cultural Heritage Project were as follows:

- Providing new opportunities and resources for life-long learning and
- Supporting social inclusion and participation
- To establish **guidelines and procedures** for digitisation projects in Ireland, with a focus on the cultural sector, including libraries, museums and archives
- To establish **centres of expertise** in digitisation, distributed around the country, with particular knowledge of various aspects of digitisation and of the digitisation of different types of media
- To identify **user groups and target audiences**, to ascertain their requirements and priorities and to deliver an end product which would meet or exceed these requirements
- To identify the **most important local studies holdings** and special collections in public libraries and to create a gazetteer of these collections
- To carry out a **programme of pilot digitisation projects** in libraries, museums and archives and so demonstrate the viability of a national digitisation strategy
- To prepare the ground for a **national digitisation strategy** for important library holdings, as envisaged in the *Branching Out* report, with concomitant impact on the goals of the Information Society
- To draw up **recommendations** for such a strategy
- To further the aims of the **Information Society** by:
 - Creating and publishing relevant online content of interest to the general public

| Right |
Receipt for the purchase of a County Almanac from Alexander Thom's by Lord Leitrim in 1865



Courtesy of Leitrim County Library



| Left | Print of Ballygihen House, Dún Laoghaire, Co. Dublin

Courtesy of the National Library of Ireland

- To involve **national and local cultural players** such as museums, the National Library of Ireland, the National Museum of Ireland, the Irish Architectural Archive, the National Archive and also local libraries, museums and archives
- To draw up a **national profile of digitisation activities**, in line with Ireland's commitments under the Lund Action Plan and thus to contribute to the creation of European cultural digitisation profiles and benchmarks.
- The project team provided comprehensive **web facilities**, including templates and tools for publishing the newly-digitised material, training, assistance and support. The project website, which includes the pilot projects and the local studies projects, can be viewed at www.askaboutireland.ie or www.askaboutireland.com
- A project **portal** was provided as a common point of entry to the website. It includes integrated user presentations, built upon the material digitised by the participant projects, search engines and **databases of digital images, digitisation projects and special collections**. This centralised portal **adds end-user value** to the distributed holdings of the participants, by presenting them as a seamless whole and providing tools for their re-use in education, commerce, art, life-long learning and recreation

Implementing the Project

The project team set up and supported digitisation initiatives across the country and used their experiences and feedback, with international research, as the basis for the guidelines and recommendations presented in this report.

- Five major **pilot projects** were established in libraries, museums and archives. Each of these developed expertise and experience in the digitisation of particular media (such as photographs, audio-video, newspapers and 3D items)
- **Local studies projects** formed a network across the country, coordinated on a regional basis. These projects focused on a common theme – *The Big House and Landed Estate Life in Ireland*
- **User feedback** and involvement was essential for the project. Focus groups and test units were established; their feedback led to many enhancements of the work of the project. User requirements for centralised presentation of data, for education and for commercial/creative re-use were reflected in the project output
- The Cultural Heritage Project team liaised with **national cultural bodies** and explored ways of providing access to content, copyright issues and further opportunities.

Project Results

- The Cultural Heritage Project carried out a **programme of local digitisation projects** which developed expertise and skills within each library authority
- The pilot projects and the local studies projects produced an impressive array of **new digital material**, much of it never published before. Examples include Heywood House in Laois, Lissadell House in Sligo, the Geashill Cattle Drive in Offaly and Bushy Park, Terenure and the Shaw Family in Dublin
- The Cultural Heritage Project added a host of new and exciting content to the Internet, reinforcing its value from an **educational** standpoint and for **life-long learning** in particular
- The pilot project teams created a significant amount of **guidelines and best practice** material. This was further enriched by international best practice research
- **End-User groups** were identified, particularly in the research, commercial, creative, educational and tourist sectors. Their **requirements** were explored and then met by the project

| Right | The 'Jealous Wall' Folly at Belvedere House, Lough Ennell, Co. Westmeath



Courtesy of Westmeath County Library

- Background and preparatory work for the **national digitisation strategy** was completed
- The **aims of the national digitisation strategy** were developed and presented in a series of recommendations
- The project addressed the aims of the **Information Society**, particularly in the following areas:
 - Social inclusion
 - Access to and involvement with the Internet and
 - Life-long learning
- The project created and maintained **online gazetteers** of local studies content, digitisation initiatives in Ireland and of special collections in Irish libraries
- The Department of Education and Science identified the value of high-quality historical material for the purposes of developing **modules for curricula** for primary and secondary education
- The project team **liaised with national cultural players** and explored ways of providing access to content, copyright issues and further opportunities
- A **national digitisation profile** was drawn up in line with the Lund Action Plan.

Project Findings

The core findings of the Cultural Heritage Project are as follows:

- Digitisation units in local libraries, museums and archives sectors are **viable**
- Establishing digitisation projects in organisations with limited IT skill resources and no digitisation expertise is **feasible**
- A wider **national digitisation strategy** supporting such projects will be viable and valuable
- It is not necessary to utilise complex, expensive or unsustainable technologies in order to have dramatic results. This ensures the ongoing **sustainability** of any programme using a similar approach. Ongoing maintenance of virtual collections can be a 'housekeeping' task, without excessive drain on the resources of the cultural bodies involved
- While small, autonomous local projects are viable and sustainable, **a central support and training resource is of considerable value** and increases the likelihood of success for participants
- Common **guidelines and templates** ease the development and support processes and enhance the end-user experience
- The appreciation and fulfilment of **end-user requirements** is critical
- Context, storyline and introductory material adds significant value for the end-user
- A central point of access, or **portal**, is important to help the end-user to navigate through the many smaller sites and to enable the creation of integrated, added-value presentations built from contributions from many smaller initiatives
- Digital representations of cultural items are themselves **quite different products** from the original items, with new potential for enjoyment and re-use in the creative and commercial sectors. A good example is *The Big House Experience*, an interactive Cultural Heritage Project presentation built from material digitised by a number of participant projects
- Library personnel involved in the project are **enthusiastic** about the digitisation process and the manner in which it adds value to their collections. In many cases digitisation provides a new mode of access to and increases interest in, local collections with relatively low profiles
- There is a high level of **public interest** in local history material online. This has the potential to impact upon the Information Society's objectives
- Local digitisation projects have knock-on value for **cultural tourism**.



| Left | Map of the Bushy Park House Demesne, Terenure, Dublin

Ireland, Ordnance Survey Maps of the Terenure and Crumlin estates, Co. Dublin. 1879 extract is from Co. Dublin sheet XXII.6, scale 1:2500. Surveyed 1864. Zincographed 1865.

Project Recommendations

The core recommendations of the Cultural Heritage Project are as follows:

1. That a national digitisation strategy for public libraries be established, with the following objectives:
 - To stimulate the use of and involvement with the Internet by the general public
 - To support the eContent, commercial, creative, tourism and educational sectors
 - To develop local and national history and culture websites, based on the collections of public libraries
 - To enrich the quality of life of all citizens and
 - To support social inclusion and life-long learning.
2. That the national digitisation strategy be implemented by a national digitisation programme; a network of autonomous digitisation projects on the history and culture of their county/city with links to a programme portal which will present aspects of the history and culture of Ireland.
 - Each library authority project should be run as an independent entity, with responsibility for all aspects of the digitisation process. Common website templates and publishing

toolsets can be made available to projects, should they wish to take advantage of them

- Each library authority may apply for digitisation funding under the national digitisation strategy
 - The programme should not be competitive – each authority that makes a clear and valid case for funding should be funded. The amount of funding allocated to each project should be influenced by the amount and importance of the material to be digitised, the nature of the target audience and the contribution that the project will make to the overall digital cultural landscape
 - The projects should comply with a set of guidelines published by the programme, covering such issues as metadata standards, file formats and preservation. An outline of best practice guidelines is presented in this report
 - Projects should focus on the community, on local content and on the needs of the end users. Projects should deal with digitisation from the viewpoints of both those who digitise the cultural material and those who access the digitised material.
3. That the programme implements a central 'portal' website facility, linked to all the library authority sites. This portal will focus on the provision of end-user services such as:

| Right | Interior of Bushy Park House, Terenure, Co. Dublin



Courtesy of the Irish Architectural Archive

- Programme-Wide search and navigation aids
- Integrated user presentations, utilising content created by the individual projects
- Contextual and narrative information
- Databases of projects, digital items online and special collections and
- The portal website will also host training and support materials and updated guidelines and standards for the programme projects.



| Left | 19th century round marble wall plaque of an eagle and the Bonaparte coat of arms

Courtesy of Waterford Museum of Treasures

4. That the portal website be established and maintained by a national digitisation strategy team at An Chomhairle Leabharlanna.
 - The strategy team will provide technical and project management training to the projects. The training will be available in Dublin or in regional centres, as required. Support documentation will be hosted on the portal website
 - The strategy team will continue to monitor the state of the art in relation to digitisation in order to update guidelines and standards
 - The strategy team will coordinate the creation of integrated presentations on major themes which build upon the material created by the individual projects. Such

presentations have been shown to be of particular value for educational and general-public users

- The strategy team will liaise with national bodies such as the National Library of Ireland and the National Museum of Ireland, on behalf of all projects in the programme. This liaison will focus on cooperation and ways of providing access to content
- The strategy team will liaise with the Department of Education and Science with a view to development of new educational resources based on the programme content. These resources could be linked to *Scoilnet*, the national educational portal website, in collaboration with the National Centre for Technology in Education
- The strategy team will liaise with libraries, museums, archives in Northern Ireland and the Public Record Office of Northern Ireland in relation to material and themes of common interest. The strategy team will also liaise with other institutions holding Irish interest material, such as the National Library of Australia.

Costs

The project team estimates that the cost of the total investment in a two-year digitisation programme would be €3.2 million.

It is recommended that funding from the Information Society Fund should be made available to the digitisation programme, providing funding of up to 75% of the total costs.

Conclusion

The Cultural Heritage Project has demonstrated that a national digitisation strategy supporting local digitisation projects and managed centrally will be a success. It will have significant impact on the Information Society objectives and make an important contribution to the cultural sector.

Background

Introduction: Branching Out

The *Branching Out* report, published in 1998, set out a strategic plan for the libraries sector in Ireland. The findings of the report were accepted in principle by the Minister for the Environment and Local Government, who received strong support from Government for its implementation. The report underlines the important role of the public library in the community and the contribution that the library network can make to the success of the community as a whole.

An important initiative under the *Branching Out* report was the universal provision of Internet access in public libraries. This step alone makes a major contribution towards Ireland as an inclusive information society, with the facilities being largely used by those new to the Internet, including the disadvantaged and minority communities.

The *Branching Out* Steering Committee established a panel, the Cultural Heritage Panel, to explore avenues whereby the digitisation of cultural holdings could be progressed. The terms of reference of the panel were as follows:

- To review current initiatives in the creation of digital and networked access to cultural and other relevant information resources, as appropriate
- To consult with key local and national institutions holding significant cultural collections in order to identify opportunities for cooperation
- To consult with potential user groups to identify content requirements
- To examine the financial implications, including possible funding opportunities

| Right | 'Castlebar Races', Castlebar, Co. Mayo, August 27, 1798



Mayo County Library, Wynne Collection.
Courtesy of Gary Wynne

The *Branching Out* report recommended 'a programme of digitisation of local studies materials, beginning with unique/rare resources, but with the long term aim of making the holdings of all local studies sections available in digitised form'.

- To make recommendations in relation to access to digital content resources to the Branching Out Steering Committee.

Having taken into account the state of the art, both nationally and internationally and with a full understanding of costs and the potential benefits, the panel envisaged a pilot project which would investigate the feasibility of a digitisation programme. Particular emphasis would be laid on the creation of guidelines and recommendations for a wider programme. This led to the preparation of the proposal for this project.

- An Chomhairle Leabharlanna as the Department of the Environment, Heritage and Local Government policy advisory body for libraries, is well aware both of the wealth of **unique material in Irish cultural institutions** and the constraints which hampered its full exploitation.

Each of these background influences is reviewed in more detail in this section.

State of the Art

In addition to the *Branching Out* report, a number of other factors, both national and international, influenced the establishment of this project. These include the following:

- The project management team had been involved for some years in cultural and libraries' projects supported by the European Union and were aware of ongoing cultural digitisation projects in **other EU countries**
- The importance of local content and community-centric content on the Internet as a driver for late adopters of the **Information Society** had been explored in some detail by the project team over the previous two years

Cultural Digitisation in Europe

The digitisation of cultural content is a common theme across the EU, as governments discover and support the potential of the online medium for the promotion of their cultural holdings. Such promotion is not limited to simple advertising for museums, galleries, libraries, etc.; the digitisation and publication of cultural material provides an exceedingly flexible new product, the digital cultural item, with excellent potential for commercial re-use in printing, textiles, packaging and entertainment, as well as for educational and research purposes. Good examples include the British Museum in London, the impressive DADDI project in Florence, the Spanish Miguel de Cervantes Digital Library and many more.



| Left | A group of menservants from Castletown House, Celbridge, Co. Kildare c.1880

Courtesy of the Irish Architectural Archive

On 4 April 2001, representatives and experts from the Commission and Member States met at Lund in Sweden to discuss how to coordinate and add value to national digitisation programmes, at a European level. The meeting led to an Action Plan of steps to be taken to improve the digitisation landscape across Europe. Ireland has committed to the Lund Action Plan which maps out the implementation of the principles. This Action Plan enjoys strong support from the EU which has various programmes such as Cultural Heritage within IST (Information Society Technology), eContent, etc. which focus on this area.

A major driver for adoption of the Internet among those users who do not require it for work purposes is the availability of content which is of interest and relevance, to them. An important example of such content, is content that is local in nature and of specific interest to the inhabitants of a particular region. Local content is by default relevant content and the availability of local content on the Internet acts as an important stimulus to attract new users to the online medium. Once familiar with the technologies and no longer intimidated by the procedures, such new users explore the further

| Right | Plaster panel detail from Glenageary Hall, Dún Laoghaire, Co. Dublin



Courtesy of the Irish Architectural Archive

Information Society

Some 40% of the Irish population now have access to, and use, the Internet. (Commissioner for Communications Regulation, Dec 2002). This reflects the wide availability of the Internet in the workplace and its popularity in the residential market. While new delivery mechanisms, such as ADSL and Wireless Broadband, have become considerably more economical in 2003, uptake to date has been slower than anticipated. This indicates that the number of Irish users of the Internet is stabilising and that the large majority of those who are interested in the Internet for its own sake are now online.

potential of the Internet for information gathering, electronic commerce, etc. Local content is thus an important driver for the Information Society.

The project team believes that the digitisation of large amounts of local content in all parts of the country will have a nationally significant impact on the take-up of the Information Society. This would not be restricted to adding value to library or museum collections, but would have wider ramifications for the use of the Internet as a whole, once late adopters were attracted to the Internet using local material.



| Left | The Library, Charlesfort House, Athgaine Little, Co. Meath

Courtesy of the Irish Architectural Archive

In the Libraries

Libraries across Ireland have significant collections of unique material in their holdings. These collections are often concerned with local history, but may also be the papers or correspondence of an historic individual, or a collection of photographs, etc.

Public libraries are often the only cultural service in a community. As such, they are guardians of the community memory and the focus for current cultural events. It is important that this content is collected, preserved and made accessible for educational and research purposes.

However, a major asset of this material is its uniqueness and its general public interest, which makes it ideal also for re-use in commercial applications from prints to textiles, from marketing to tourism.

The Cultural Heritage Project

The Cultural Heritage Panel proposal was endorsed by the *Branching Out* Steering Committee. With funding sought from the Information Society Fund, the Department of the Environment, Heritage and Local Government provided €190,500 for the project.

The proposal outlined a pilot project which:

- Involved the largest possible number of small local cultural bodies
- Had the widest impact in terms of different collections digitised
- Maximised the area of application of the project, thus targeting the largest possible user base and optimising the impact of the project in terms of the Information Society
- Laid the foundations for a national digitisation programme by establishing local and widespread expertise
- Gave such a programme a springboard by creating guidelines, frameworks, procedures and technologies which could be used in a national digitisation programme
- Made major steps towards Ireland's commitments to the Lund Action Plan and
- Established viable, sustainable strategies for cultural digitisation in the longer term.

The project was to be coordinated by An Chomhairle Leabharlanna and to have duration of six months.

The decision of The Heritage Council to support the project with an additional €60,000 funding, broadened the participation base to include museums and archives.

Implementing the Project

Project Objectives

The objectives of the Cultural Heritage Project were as follows:

- To establish guidelines and procedures for digitisation projects in Ireland, with a focus on the cultural sector, including libraries, museums and archives. These guidelines would cover all steps in the digitisation life-cycle and would be practical and pragmatic in nature
- To prepare the ground for a national digitisation programme as envisaged in the *Branching Out* report, with concomitant impact on the goals of the Information Society
- To carry out pilot digitisation programmes in as many libraries and cultural sites as possible, in order to explore the feasibility of digitisation within the context of the public library sector, the museums sector and the archives sector. This in turn would investigate the feasibility of any national digitisation programme in these sectors
- To establish centres of expertise in digitisation, distributed around the country, with particular knowledge of various aspects of digitisation and of the digitisation of different types of media

| Right | Charlesfort House, Athgaine Little, Co. Meath



Courtesy of the Irish Architectural Archive

- To further the aims of the Information Society by:
 - Creating and publishing relevant online content of interest to the general public
 - Proving new opportunities and resources for life-long learning and
 - Supporting social inclusion and participation, particularly for the elderly and the geographically peripheral
- To identify the most important local studies holdings and special collections in public libraries and to create a gazetteer of these collections
- To identify user groups and target audiences, to ascertain their requirements and priorities and to deliver an end product which would meet or exceed these requirements. Such requirements were to cover content, presentation and user interaction
- To involve national and local cultural players such as the National Library of Ireland, the National Museum of Ireland, the Irish Architectural Archive, the National Archive and also local libraries, museums and archives
- To draw up recommendations for a national funding programme for content digitisation of the significant holdings of public libraries, museums and archives

- To draw up a national profile of digitisation activities, in line with Ireland's commitments under the Lund Principles and thus to contribute to the creation of European cultural digitisation profiles and benchmarks.

Valuable side-effects of the achievement of these objectives would be as follows:

- The creation of a significant body of unique, valuable digital material, based on the holdings in public libraries, museums and archives. This material would be of particular value in the educational, cultural tourism and commercial sectors and
- The establishment of expertise in digitisation in a large number of local institutions, thus laying the groundwork for future digitisation programmes.

Approach

The project was made up of three cooperating strands:

- A number of **pilot projects** would be selected. Each of these would focus on the digitisation of a particular type of media, build up expertise and identify best practice
- All library authorities would be invited to participate in a **network of local studies projects**. These projects would carry out digitisation and web publishing of local studies content

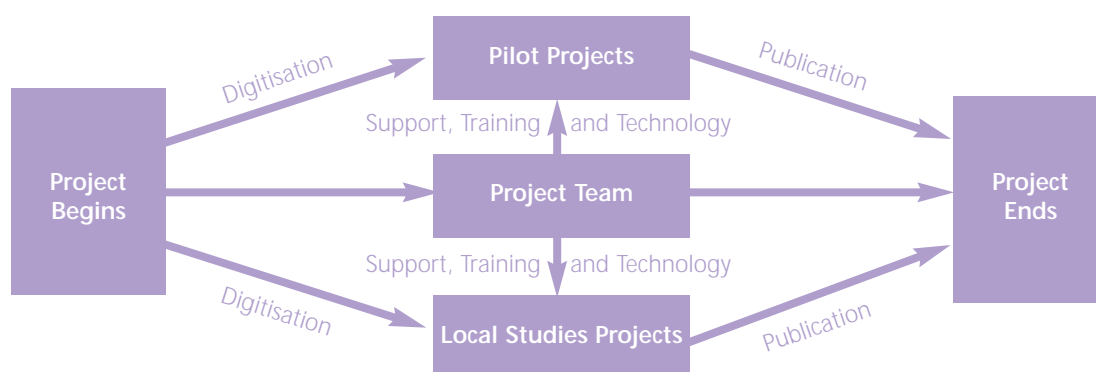
- The **project team** would provide training, support and technical assistance to the pilot projects and to the local studies network projects. They would research best practice, liaise with other projects and national bodies and coordinate the project

- A comprehensive project **website**, with full technical training and support, would be provided as an infrastructure to all parties involved in the project. This would facilitate web publication of results, as well as being the vehicle for the creation of databases, a national profile, etc.

Project Tasks

The execution of the Cultural Heritage Project can be broken down into the following major tasks.

1. **Project initiation:**
 - a. Team building – recruiting a project team and a technical partner
 - b. Website creation – creating the project website and the templates for the sub-projects to use
 - c. Pilot project selection – choosing the local authorities who would carry out pilot digitisation projects
 - d. Local studies network establishment – setting up regional coordinators, etc.
2. **Training** of the pilot projects and the local studies projects' personnel.



3. **Digitisation** through pilot projects and local studies projects across the country:
 - a. Pilot projects
 - b. Local studies projects
 - c. Project team support and research.
 4. **Survey** of local studies holdings, digitisation projects and digital material already online.
- Recruiting a project team and technical partner
 - Creation of the project website including the creation of templates and tools for the pilot projects and the local studies projects
 - Selection of the pilot projects and
 - Establishment of the local studies network.

| Right | The Ask About Ireland home portal page



5. **Consultation and cooperation**
 - a. Liaison with national bodies and other cultural institutions
 - b. Identify user groups and outline a marketing plan
 - c. Create and maintain a national digitisation profile.
6. **Conclusion** and reporting.

Project Initiation

Having established the structure of the project and agreed it with all stakeholders, the project began in September 2002. The major tasks to be addressed in the opening weeks of the project were as follows:

Team Building

The project team was established by An Chomhairle Leabharlanna. The team consisted of project management personnel, digitisation experts, trainers, researchers and a technical partner.

Website Creation

The project website was created at the web address www.askaboutireland.ie or www.askaboutireland.com.



| Left | Advertisement for a War Office film, *The Waterford News*, November 1916

Courtesy of Waterford City Library

The website consists of:

- The **Project Area** for the pilot projects and local studies projects. This included tools and templates for web-page creation, training and support materials and information about the status and management of the project
- The **User Area** for the general public and those interested in browsing the new digital content, with tools for accessing the new digital material. These included search tools, projects-by-location, as well as contextual information and integrated user presentations and
- Online databases of special collections, digitisation projects and digital images. These allowed the participants to update and edit the databases and the end-user to browse and search for content.

An important characteristic of the website is its openness. Access to the full site functionality is easy and unrestricted – users can explore to any depth that they wish, including full access to the core project databases. Only site editing and database update are restricted. If users cannot find the information that they require or would like further information, contact details for all local studies librarians and links to library catalogues are provided.

The portal site has been designed with universal access as an objective. Validation against the relevant ('Bobby') criteria has identified certain areas of non-compliance, which are being addressed.

The majority of the website pages are maintained by the pilot projects and the local studies teams around the country. In order to facilitate this, the technologies used in most of the website are relatively straightforward, allowing the pages to be edited and maintained using simple tools and procedures.

During the course of the project, the website appearance was changed several times, in response to user feedback and expert opinion. In particular, the most user-focused aspects of the site, such as *The Big House Experience* and the database browsing functions were added in the second half of the project.

Full details of the website can be seen in Appendix Four (page 78), or indeed online at <http://www.askaboutireland.ie> or <http://www.askaboutireland.com>

Once the technical infrastructure was in place and the training materials prepared, the project team were in a position to recruit and train the pilot project and local studies teams to work on the project.

Pilot Project Selection

A competitive call for proposals requested proposals from library authorities, museums and archives for projects to carry out investigative digitisation work and to create expertise, guidelines and procedures which would be of value to other local digitisation projects in the coming years. The involvement of The Heritage Council at this stage broadened the participant base of the project to include museums and archives.

Following evaluation against the published selection criteria, five pilot projects were selected:

- Cork Archives Institute, with Clonakilty Museum – investigating the digitisation of archive materials
- Dublin City Public Libraries – investigating the digitisation of printed text, manuscripts and maps
- Mayo County Library – investigating the digitisation of images, audio and video materials
- Waterford City Library – investigating the automated indexing of newspapers and
- Waterford Museum of Treasures – investigating the digitisation of museum artefacts including three-dimensional objects.

Full details of the pilot projects and their activities can be found in Appendix One (page 57) and also on the project website at

<http://www.askaboutireland.ie/bestpractice.html> or
<http://www.askaboutireland.com/bestpractice.html>

Local Studies Network Establishment

All library authorities were invited to participate in a network of local studies projects, each of which would carry out digitisation of their collections and publication of their content on the World-

Wide Web. In order to make the material as coherent as possible, a theme was agreed with County and City Librarians, which would form the basis for the selection of material to digitise. This theme was *The Big House and Landed Estate Life in Ireland*. The term **national thematic network** was used within the project to identify this part of the project activities.

Regional groups, each with its own local coordinator, were established. These groups worked with the project team on the selection of material to be digitised, training and support.

Training

Having established the websites and the tools and templates, the project team provided training to the pilot project and local studies project personnel. This training included:

- Internet essentials
- Digitisation life-cycle, theory and practice
- Creation of web pages using digitised content
- Fundamentals of research, particularly with regard to the Internet
- Project management
- Report writing
- Metadata and
- Use of the project website and the tools and templates.

| Right | Participants at the Cultural Heritage Project training days September and October 2002

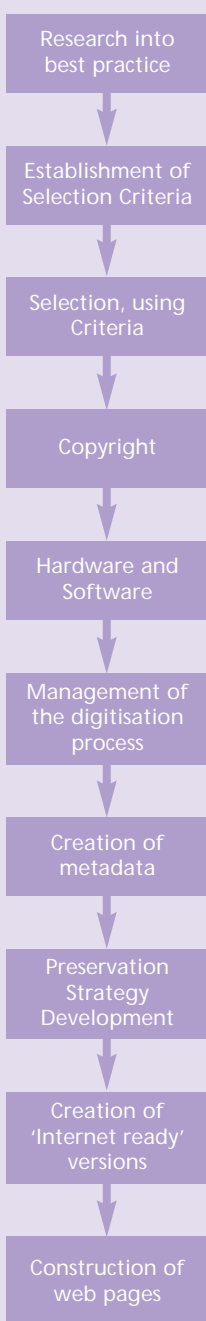


Courtesy of Dublin City Public Libraries

The Digitisation Life-Cycle

The process of digitisation of cultural material involves a number of steps. These are outlined below:

- **Research** into best practice and into other cultural digitisation projects
- Establishment of the **criteria to be used while selecting** which material was to be digitised and placed on the Internet
- **Selection** of material to be digitised (using the established criteria)
- Clarification of any **copyright** implications for selected material
- Exploration of **hardware and software** options
- **Management** of the digitisation process
- Creation of **metadata** to describe the new digital items
- Establishment of a strategy for the long-term **preservation** and **storage** of the new digital items
- Creation of **'Internet-ready'** versions of the new digital material
- **Construction of web pages.**



A technical manual was provided, with step by step instructions on the use of the website and the utilisation of the templates and tools. All training materials, including the manual, can be downloaded from the project website.

Digitisation

The digitisation phase of the project involved the following activities:

- Pilot projects' digitisation of their source material
- Support and further training to pilot projects and local studies projects by the project team
- Identification of guidelines and best practice by the pilot projects and local studies projects
- Building up of expertise across all sub-projects and
- Enhancements to the project website including new user-friendly interactive functions.

Pilot Projects

The pilot projects were the first to carry out the full digitisation life-cycle. They identified best practice, developed viable and feasible procedures and gained hands-on expertise.

In line with their remit, they provided reports on each stage of the digitisation process, including recommendations and lessons learnt. These reports were reviewed by the project team who provided feedback and support. The project team also provided technical and project management support to the pilot projects as required.

Copies of the pilot project reports can be accessed from the project website. The results of their work can be accessed from the project website at www.askaboutireland.ie/bestpractice.html or www.askaboutireland.com/bestpractice.html

Local Studies Projects

Local studies librarians submitted lists of their selected material for review by the project team. Dr. Terence Dooley, Department of Modern History, National University of Ireland, Maynooth, developed the storyline and reviewed the selected material for integration with the overall theme of *The Big House and Landed Estate Life in Ireland*.

| Right | A close-up of the colonnaded quadrant, Castletown House, Celbridge, Co. Kildare



Courtesy of the Irish Architectural Archive

The digitisation and online publication of the material followed. The project team provided ongoing support, advice and assistance to the local studies projects. Where necessary, additional one-to-one training and support was provided.

The Big House Experience and the *Big Houses Across Ireland* page on the website demonstrate the quality of the content held in the libraries and the level of expertise developed by staff.

Project Team Support and Research

During this part of the project, the project team focused on supporting the pilot projects and the local studies projects.

In parallel, many enhancements were made to the project website, in order to make it both easier for the participants to use and also more attractive to the commercial, educational and research communities. These enhancements included:

- The engagement of Dr Terence Dooley to provide historical context and background information on the Big House theme
- The creation of *The Big House Experience*, an interactive historical presentation and
- Upgrades to all pages of the website to make it more attractive and interesting.

The project team also engaged in research into best practice and examination of examples of other cultural digitisation initiatives in Europe, the USA and beyond. Resources such as TASI¹ in the UK, the American Colorado Digitisation Programme and the National Library of Australia were particularly relevant.

¹ Technical Advisory Service for Images: A United Kingdom Joint Information Systems Committee Web-Based service available at: <http://www.tasi.ac.uk/>

Survey

An important objective of the Cultural Heritage Project was to build up a profile of digitisation activity in Ireland, as well as identifying the most important local studies collections which could be prioritised for digitisation.

In order to achieve this objective, the Cultural Heritage Project carried out a survey of existing and emerging digitisation activity in the Irish libraries sector. This survey work is ongoing and planned to continue indefinitely.

The survey collects information on three major topics:

- **Local studies collections** held in public libraries
- **Digital images** of documents, drawings, maps, photographs and 3D items held in Irish libraries, museums and archives and
- **Digitisation initiatives** being carried out in the Irish cultural sector.

The survey results were placed in three online databases maintained on the project portal site. These databases can be accessed by all users and updated by any project participant. This allows them and the survey to be kept up to date. It also means that there is no major data entry overhead on any one organisation, as the updating effort is distributed.

Full details of the survey, with profiles of what data were collected, are presented in Appendix Three (page 74) to this document.

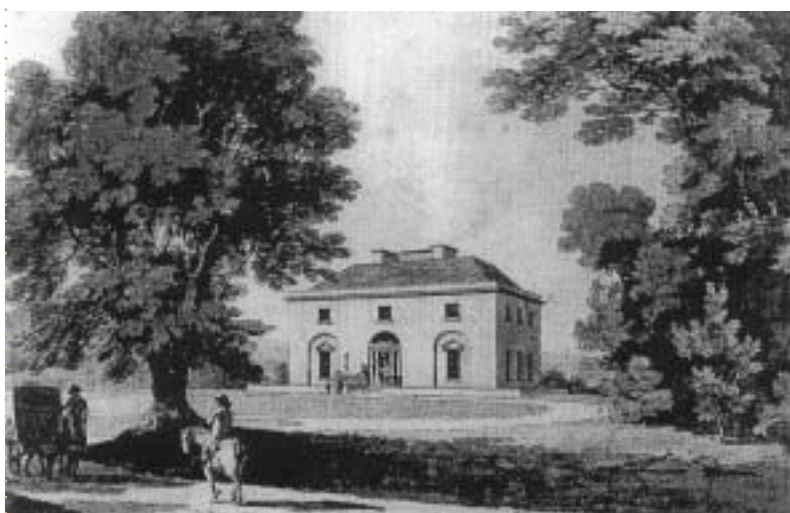
Consultation and Cooperation

The project team acted as the agents for the project in its dealings with non-participants. While the pilot projects and the local studies network projects focused on the creation of new digital content and its subsequent publication, the project team addressed the externally focused objectives of the project:

- Liaison with national bodies and other cultural institutions
- Identification of user groups and their requirements and
- Creation and maintenance of a national digitisation profile.

Liaison with National Bodies and other Cultural Institutions

Throughout the course of the Cultural Heritage Project, the project team acted as a central liaison with other cultural bodies, beyond the public library sector and the project participants.



| Left | Heywood House, Ballinakill, Co. Laois, pre-1746

Courtesy of Laois County Library

This included:

- Meetings with the National Library of Ireland and the Irish Architectural Archive in order to arrange for liaison to provide access to important original content held in these institutions in such a way as to avoid duplication of effort and funding and to discuss issues relating to copyright clearance and reproduction rights
- Meetings, discussions and agreements with RTÉ for access to audio-visual material and
- Agreement and subsequent liaison with The Heritage Council, regarding the involvement of museum and archive participants.

User Groups and Marketing Plan

The project team identified potential user groups at the start of the project. However, the widespread public interest which manifested itself as the project developed, led to a readjustment of the project's expectations vis-à-vis end users. This also led to a greater emphasis on the end-user in all the project activities; the project website was re-designed, the content was integrated and made more user-friendly, end-user groups and focus groups were assembled and the project reinvented itself as more 'outward looking' and less internally focused. This topic is covered in greater detail in the **User Groups and Marketing Plan** section.

National Digitisation Profile

An important objective of the project, *ab initio*, was to establish and maintain a national digitisation profile. This profile is central to Ireland's commitments under the Lund Action Plan. The profile provides an overview of the state of the art in cultural digitisation in Ireland and highlights important initiatives such as, for example, the Cultural Heritage Project, the ACTIVATE project online

at www.activate.ie and the RASCAL project online at www.rascal.ac.uk. It outlines activities in Ireland in a number of key areas, including the following:

- Policy
- Inventories and resources
- Metadata and interoperability
- Best practice
- Contribution to the European cultural profile and
- Future priorities.

The national profile is an important output of the project. The database of digitisation initiatives (see page 76) complements the profile by providing information relating to individual projects. The national profile is available on the website and is further outlined in Appendix Seven (page 91) to this document.

| Right | View of the stairhall, Castletown House, Celbridge, Co. Kildare



Courtesy of the Irish Architectural Archive



| Left | Photograph of steel engraving of Delphi Fishing Lodge, Co. Mayo

Courtesy of the National Gallery of Ireland

Key Results

The most important results of the implementation of the Cultural Heritage Project can be divided into three categories:

- Benefits to the end-user
- Benefits to the library sector and
- Impact on the Information Society objectives.

Benefits to the End-User

The user-centric features of the project website support a range of benefits for the end-user population. These all centre around the ease of access to new, unique and interesting cultural material and the flexibility of the digital medium when it comes to re-use and new applications.

The **general public** have access to new and exciting material for recreational purposes, such as browsing old newspapers, learning about their local areas during important historical periods, etc. However, deeper benefits are derived by some sectors of the public:

- **Immigrants**, both from within Ireland and abroad, are helped to establish a sense of place and to become familiar with the historical background of their new communities

- The **elderly**, restricted in terms of mobility and also by the condition of much of the original material, have easy access to the digital version. The digital material can also be magnified and processed in other ways to make it more easily accessible to the elderly and
- Those engaged in **life-long learning** have access to exciting new educational material. The social history aspects and the local focus of much of the material makes it very attractive to the layperson or casual reader, as well as to those engaged in advanced research. This content also presents an example where a technology-centred environment such as the Internet is used for non-technology education.

The digitisation process has created a large new body of online content. This content is unique in its regional focus, its historical value and its inherent relevance for those interested in Irish affairs. The material is a valuable resource for **research** and scholarly work, as well as for **recreational** and **educational** purposes. In many cases, the material has never been published before.

In addition to the value of the material as a historical resource, much of the new digitised content has **aesthetic** value. The images and articles published on the Internet have never been available in digital form before. They are now

accessible to all, in a format which can easily be manipulated and integrated into **commercial** and **creative** processes.

Creative and commercial users have a new source of inspiration, images and ideas to stimulate their creativity. Much of the material being published online is in the public domain, and so is easy to use for commercial or creative purposes, as in, for example, packaging, textiles and books.

The project facilitates the use of the new material for educational, research and recreation by integrating many of the elements produced by the pilot projects and the local studies projects into **coherent presentations** such as *The Big House Experience*. Storyline and contextual background is provided, so that the environment in which historic items were produced can be understood and the historical meaning of the material appreciated.



| Left | The O'Halloran Girls,
Bodyke, Co. Clare

Clare County Library Reports on Its Website www.clarelibrary.ie

The Clare County Library website was established to increase access to the library's resources in both time and place. Through the website, the library's cultural material and catalogue of stock are made available to everyone, regardless of when they wish to access it or where they may happen to live. The site also provides similar access to other cultural services provided by Clare County Council – Clare Museum, Clare County Archives and the Heritage and Arts Services. The unifying theme of the website is 'County Clare' and we aim to be the primary Internet presence for the county. Through digitisation of data, we make actual resources available on-line, rather than just informing people that we hold those resources, i.e. we have moved beyond the 'online brochure' model to being a true destination of substantial resources.

Response to the website is measured in two ways, through feedback and monitoring of visits. We can also tell which areas of the site are most popular. The most heavily used section by far is the Genealogy service, in particular the 1901 Census, followed by the History section. Approximately 12% of visits to our site originate in North America, with just over 11% of visitors from Europe.

The ease of navigation of the site is constantly commented on, and the importance of a good structure becomes more apparent as the size of the site increases. People are also grateful for the amount of data available on the site: "Congratulations on providing such a comprehensive and inviting place to visit. It's like losing sense of time while browsing in a bookstore or spending the morning in the library. Go raibh maith agat! Nancy O'Bryon-Kennedy, Sacramento, California."

In a very real sense, the website has become another branch library, and as we near our millionth visitor in under 5 years, a very busy one.

(Eblana 2664), Courtesy of
National Library of Ireland

The project also actively supports the use of its output for commercial and creative reasons. An online **database of digital images** allows the commercial or creative user to access the images created by the digitisation process rapidly, without the need to also take on board the background and context. Copyright and access information is presented with the images, in order to simplify gaining permission for their re-use.

International users now have access to material which was previously available only to researchers who travelled to and consulted with, the local studies themselves. This is of particular interest to those who are descended from Irish ancestors, who can now research their family districts. This in turn stimulates **heritage tourism**, to the benefit of the communities themselves.



| Left | Front view of Glin Castle, Glin, Co. Limerick

Courtesy of Limerick County Library

Feedback from members of the **public** to the project team has been universally enthusiastic. The relevance and interest of the new material to the public has been recognised, with historical societies and general-user focus groups particularly keen.

The **Department of Education and Science** recognise the value of high-quality historical material for the purposes of developing modules for curricula for primary and secondary education. **Students** now have access to search engines and information retrieval tools which make sifting through local studies collections a great deal simpler than before. Also, by dint of the portal facilities, they can examine local studies collections all around the country, without the need to travel physically from library to library. This increases both the efficiency and the effectiveness of their research. The high-quality presentation of the content makes it immediately useful for inclusion in monographs, reports and other printed media.

Benefits to the Library Sector

The pilot projects and the local studies projects produced **an impressive array of new digital material**, much of it never published before. The depth and breadth of material available from across the country on the Big Houses theme indicates that other themes such as the Famine or the War of Independence may also yield impressive harvests of new and exciting material. Many highlights of the material created for the Big Houses theme can be viewed within *The Big House Experience*, an interactive historical presentation accessible on the project website.

The pilot projects in particular created a significant amount of **guidelines and best practice** material which will be very relevant to other small cultural projects in the digitisation area. These guidelines were collected, analysed and enhanced by the project team and are presented in the **Guidelines** section of this report.

The pilot projects also provided a large amount of **real-world experience** of small organisations in the cultural sector tackling digitisation projects for the first time. This experience will be of particular relevance to libraries and other institutions taking part in any national digitisation programme in the future. Issues and obstacles were identified and analysed and the solutions presented by the projects in their reports.

Library professionals have a new set of skills and expertise to deploy. They also have a mechanism and procedure for the creation of virtual collections. This allows new access to be made available to rare materials, as well as the conservation of materials under threat from excessive handling. The library professionals are now well positioned to undertake larger and more ambitious digitisation projects.

The pilot projects and the personnel involved in the local studies projects have established **centres of expertise and experience** in the many aspects of digitisation

The project has clearly established the viability and feasibility of a wider national programme for digitisation. Templates and technologies have been developed which can be redeployed on a national basis, or which can be used as the basis for more ambitious initiatives.

The enthusiasm and ability of the personnel in the cultural institutions involved in the project was clearly demonstrated. The ability of such personnel to become proficient in new technologies is a critical success factor for any national programme; this project has shown that this need not be a concern.

The project demonstrated that it is not necessary to utilise complex, expensive or unsustainable technologies in order to have dramatic results. On the contrary, the technologies used allow maintenance and management of the end product by local teams. This ensures the ongoing sustainability of any programme using a similar approach. Once initial technologies have been installed, training has been provided and a digital collection created, ongoing creation and updates to the collections can be a 'housekeeping' task, without excessive drain on the resources of the cultural bodies involved.

| Right |
Formal
garden,
Glin
Castle,
Glin,
Co. Limerick



Courtesy
of Limerick
County Library



| Left | Sisters Eva and Constance Gore-Booth of Lissadell House, Co. Sligo, posing for Drumcliffe Creamery advertisement

© Sligo County Library

Impact on the Information Society Objectives

The Cultural Heritage Project addressed a number of the priorities of the Information Society initiative. These include:

- Relevance of the online environment
- Life-long learning
- Social inclusion and the digital divide and
- Access to and involvement with the Internet.

The Internet is often perceived as containing enormous amounts of global information, with little of interest to the 'man in the street'. This is a major obstacle to the take-up of the Internet as a day-to-day feature of life for much of the Irish public. The Cultural Heritage Project addressed this directly by populating the Internet with **content which is relevant** to the inhabitants of particular small geographical areas. The Internet becomes more interesting and relevant when it contains interesting and exciting information

about recent history of one's own community. Having accessed the Internet in order to view this social historical and community memory content, the late adopter is significantly better equipped and prepared to engage more fully with the online world.

Life-Long learning is characterised by a wide spectrum of learning approaches and schedules. Different individuals have different opportunities for learning, depending on age, employment status, family, etc. The Internet is an ideal platform for the delivery of life-long learning material, given its 'always-on' and ubiquitous nature. The Cultural Heritage Project added a host of new and exciting content to the Internet, reinforcing its value from an educational standpoint. The new material was not technical in nature, but instead addressed the less well covered areas of history, culture and social memory. The exciting and relevant nature of the material presented by the Cultural Heritage Project is encouraging and attractive to the life-long learner.

Social inclusion was addressed by the Cultural Heritage Project in a number of ways:

- The publication of cultural information on the Internet makes it accessible to all – including the elderly, the disabled and those who are located on the geographical periphery. This enriches the cultural life of all, as well as opening similar creative and commercial opportunities, regardless of location
- New members of a community, such as immigrants, refugees and asylum seekers, can be assisted in the finding of a sense of place and belonging in the community, by gaining familiarity with the context and background on which a community has been built. Local history and local studies are important foundations for a sense of belonging. With the large scale of both internal and international immigration in Ireland, this sense of place is of great value.

Access to and Involvement with the Internet

Local material is relevant to the members of a particular community. Participation in local groups such as educational, historical and cultural bodies is an important and enriching aspect of Irish community life. The availability of cultural material online has two effects for such groups – on the one hand, it enriches the resources which they can explore and enjoy. Significantly, on the other hand, it reveals a new medium, appropriate for discussion, participation and involvement, for the ongoing activities of local groups and bodies. The local material acts as a catalyst for the penetration of the use of Internet technologies into the day to day life of the community.

Case Studies

Mayo

The pilot project carried out by Mayo County Library is an example of the significant expertise that can be developed over a short time, given enthusiastic staff, appropriate support and a technical infrastructure on which to build.

At the start of the project, the Mayo team had essentially no knowledge of audio and video digitisation; six months later they presented an impressive overview of the area, illustrated by audio and video material which their project had created.



Castlebar Races, August 21st 1798, Mayo County Library – Wynne Collection, courtesy of Gary Wynne.

Louth

The local studies digitisation project carried out by Louth County Library focused on material relating to The Wildgoose Lodge, Ardee, Co. Louth and the Louth County Museum Barton Family Collection. Again, this project went from a 'standing start' to an impressive website populated with much original and unpublished cultural material. Such a project underlines the potential for larger digitisation programmes.



James Barton, Farndreg House, Barton Family Collection, County Museum, Dundalk

Lessons Learnt

The experience of the pilot projects and the local studies projects has allowed the project team to draw a number of important conclusions which are an important output of the project as a whole. These can be divided into two categories:

- Lessons about the library sector and digitisation projects and
- Lessons about the end-user.

The Library Sector

Small teams with limited ICT knowledge can become proficient in digitisation and web publication in a timeframe of six months or less.

Such progress depends, however, on tailored training and on the availability of suitable tools and templates.

This allows the project team to be confident that any subsequent national digitisation programme will be a success, given similar levels of support.

In general, few difficulties were found with the use of the tools and templates provided by the Cultural Heritage Project.

While small, autonomous local projects are viable and sustainable, a support and training resource provided by (in this case) the project team, is of considerable value and increases the likelihood of success for participants. Such a resource must provide training at the start of the project and then a level of support until the project team is fully comfortable with the technologies and procedures.

Each local library has unique and valuable content to contribute. Impressive examples include Heywood House in Laois, Lissadell House in Sligo, the Geashill Cattle Drive in Offaly and Bushy Park, Terenure and the Shaw Family in Dublin.

Local studies librarians are enthusiastic about the digitisation process and the manner in which it adds value to their collections. In many cases, digitisation provides a new mode of access to and increases interest in local collections with relatively low profiles.



| Left | Interior of Avondale House, Rathdrum, Co. Wicklow

Courtesy of Irish Architectural Archive

| Right | Postcard of Market Street, Ballinrobe, Co. Mayo



Courtesy of Mayo County Library

However, different collections and sub-projects have slightly different emphases and focuses and can lead to a scattered distribution of digital material. In order to maximise the value of the many smaller projects, a central point of access, or portal, is important. This will help the end-user to navigate through the many smaller sites and will present amalgamated, added-value collections built of contributions from many smaller initiatives.

In a programme with many different, autonomous digitisation projects, a common user interface will make the constituent sites attractive to the end-user. Failure to adhere to a common look and feel and to conventions with regard to naming, etc. will make the collective result of such a programme confusing and difficult to navigate. This in turn underlines the importance of central guidelines and templates.

The End-User

The digitisation of local material creates online content which is of great interest to the local population. This underlines the value of the use of the Internet to a significant number of users. These users are in many cases 'late adopters' of technology, who might otherwise see little of relevance for them in the online environment.

The end result of digitisation, the digital item, is a totally different product to the original source item. The digital nature of the item makes it flexible and easy to re-use and manipulate in a number of contexts, including education, art and the commercial environment.

The project began with a target audience of library professionals and library users. However, as the digital material became available, a new and wider audience appeared, demonstrating the interest which exists in local material as well as the potential for commercial and educational re-use of such material.

The user interface which is most suited to the support of participants who are creating new content is not the optimal interface for end users, who view and consume the new content. Thus, any digitisation project must provide tools, templates, etc. for the digitisation process, but must also create distinct end-user tools and interfaces in order to make the new content as attractive as possible.

The project website, with its central portal and distributed sub-sites, has already attracted interest from Europe, Australia and North America. This underlines the potential for **cultural tourism**, particularly since the population of the project website is still ongoing. As an important element of the Irish tourism industry, this potential is significant.

User Requirements

Introduction

An important objective of the Cultural Heritage Project was to identify and characterise the end users and the target audience that the project would serve. The requirements and priorities of the end users would need to be identified and the work of the project should focus on meeting those requirements.

This section includes the following material:

- Characterisation of the **target audience** and their requirements of a digitisation project
- The steps that the Cultural Heritage Project took to address these requirements and
- Identification of the benefits of the Cultural Heritage Project for the end users.

The establishment of a digital version of the local studies material, coupled with its amalgamation and integration into a specific theme, resulted in a more mainstream 'product'. The user-centric tools and presentations developed during the Cultural Heritage Project meant that the audience evolved from the specialist to the general public. A second important enabler in this evolution was the integration of material from many independent projects (the pilot projects and the local studies network projects), using the portal site. This portal allowed the users to search for and to browse through materials from all participants, regardless of the actual location of the material. By allowing the user to ignore the boundaries within the project, the portal presented a central 'super-site', of great value, interest and utility.



| Left | Gardening staff at Heywood House, Ballinakill, Co. Laois in 1905

Courtesy of Laois County Library

Target Audience and Requirements

The Cultural Heritage Project was initially focused on the perceived requirements of the traditional users of the local studies department of local libraries. These traditional users include scholars and researchers, library professionals and students. In general, these users require specific materials for monographs, projects or other research activities.

However, during the Cultural Heritage Project, a much wider audience displayed interest in the material being digitised and published.

The Cultural Heritage Project carried out an extensive user canvassing and feedback exercise in order to collect real-world user requirements. A number of target audience sectors were addressed, including the general public, the library professionals and schools. Focus groups were established, testing sessions organised, questionnaires distributed and collected.

The users attracted to the new 'product' can be categorised as follows:

Educational Users

These are typically second and third level students involved in the research for projects or reports.

Their **requirements** include the following:

- Illustrations and content for reports, essays, etc. This requires easy searching for images and information characterised by topic, historical individual or event, type of image (e.g. map, deed, photograph)
- Overviews of a topic or theme, as part of the educational process. This requires contextual and storyline information, enriched and illustrated with digitised cultural material and
- Easy access to material, easy copying and manipulation of the material to rework it for their own projects.

International Users

These are typically individuals with an interest in Ireland for its own sake, or planning to visit as tourists. An important subgroup includes those with Irish connections, such as Irish-Americans.

Their **requirements** include the following:

- Searchable data in order to pinpoint individuals and locations. This requires programme-wide searching and the provision of online databases of content

- Location-Specific data which can facilitate the user to focus on a particular area and on the availability of location-specific sites and
- Storyline and context information, aimed at those not expert in the history or culture of Ireland.

Creative and Commercial Users

Those whose primary interest is in material which can be re-used for commercial or creative purposes. The most important characteristics of the material, for this target group, are its aesthetic or uniqueness properties, although copyright is also crucial. Such properties influence the usefulness of the material in areas such as textiles, printing, image reproduction and posters.

The requirements of such users include the following:

- Browsable image banks where the images can be viewed out of context, as aesthetic objects in their own right
- Copyright and location information, in order to facilitate re-use and the agreement of licensing arrangements, if appropriate. This entails the creation and presentation of suitable metadata and
- Access to high-quality images.

| Right | Sketch of Killiney Castle, Killiney, Co. Dublin



Courtesy of the National Library of Ireland

The General Public

Those who access the cultural content for recreational or 'interest' reasons. This group includes, as important sub-groups, the elderly, the geographically peripheral, immigrants and those engaged in life-long learning.

Their requirements include the following:

- Integrated user-friendly presentations: these require a centralised location for such presentations, as well as their creation and maintenance by a central entity
- Contextual and storyline content: illustrated with 'raw' material from the participants. Again, this requires a centralised effort to produce and



| Left |
FitzGerald
Family Crest,
Glin Castle,
Co. Limerick

Courtesy
of Limerick
County Library

- Location-Specific information: this requires the ability to focus on a particular area, and the availability of location-specific sites, in a manner similar to the local studies projects which are an important component of the Cultural Heritage Project.

Library Professionals

Those who carry out the digitisation and the web population which is central to the project. This group include a significant proportion with relatively limited IT skills and experience, but with an appreciation of the value of the material being digitised.

Their requirements include the following:

- A clear understanding of the *raison d'être* of a digitisation project
- Training in the mechanics of digitisation and web publication
- Expertise in all aspects of the digitisation life-cycle, such as metadata, preservation strategies, etc. and
- Technical support and assistance.

Steps Taken

The Cultural Heritage Project team took a number of steps to meet the requirements of the end users. These steps had a profound influence on those aspects of the project most concerned with access to and consumption of new digital material, such as the user-centric parts of the project website.

Each requirement is listed here, along with the action taken by the project to meet this requirement. This list is expected to be valuable to projects within the national digitisation strategy, as well as to other digitisation projects with similar audiences.

Educational Users

- Illustrations and content for reports, essays, etc. This requires easy searching for images and information characterised by topic, historical individual or event, type of image (e.g. map, deed, photograph)
- This was met by the provision of a searchable database of images on the project portal

- Overviews of a topic or theme, as part of the educational process. This requires contextual and storyline information, enriched and illustrated with digitised cultural material
- This was met by the provision of contextual essays by the project historian, as well as by *The Big House Experience* integrated presentation. Local studies projects were also encouraged to form their data into a storyline, in order to make it easier and more attractive to read and use
- Easy access to material, easy copying and manipulation of the material to rework it for their own projects
- The digital nature of all the material made it easy to access, copy and manipulate. The large proportion of public-domain, out-of-copyright material also contributed to this.

International Users

- Searchable data in order to pinpoint individuals and locations. This requires programme-wide searching and the provision of online databases of content
- This was met by the provision of search engines which search across the whole project, including pilot and local studies sites, as well as by the provision of searchable project databases
- Location-Specific data: which can facilitate the user to focus on a particular area and on the availability of location-specific sites
- This was met by the provision of local studies sites which focused on a particular county
- Storyline and context information, aimed at those not expert in the history or culture of Ireland
- This was supplied by *The Big House Experience* artefact, together with topical passages by the project historian.

Creative and Commercial Users

- Browsable image banks where the images can be viewed out of context, as aesthetic objects in their own right
- This was met by the provision of the images database and browse and search tools

| Right |
Portrait
of Lady
Belvedere,
Belvedere
House, Co.
Westmeath



Courtesy of
Westmeath
County Library

- Copyright and location information, in order to facilitate re-use and the agreement of licensing arrangements, if appropriate. This requires the creation and presentation of suitable metadata
- This was met by the provision of full metadata profiles for digital images, including copyright statements
- Access to high-quality images
- This was supported by the creation of high-quality master images by the project participants. These images are available from the participants.

General Public

- Integrated user-friendly presentations
- This was met by the provision of contextual essays by the project historian, as well as by *The Big House Experience* integrated presentation



| Left | Map of County Kildare, from a Topographical Dictionary of Ireland by Samuel Lewis 1837

Courtesy of Kildare County Library

- Contextual and storyline content, illustrated with raw material from the participants
 - This was met by *The Big House Experience* artefact, local studies projects which were encouraged to 'storyline' their material and the provision by the project historian of topical essays
- Location-Specific information
 - This was met by the provision of local studies sites which focused on a particular county.

Library Professionals

- A clear understanding of the *raison d'être* of a digitisation project
 - This was met by training of the library professionals by the project team
- Training in the mechanics of digitisation and web publication
 - This too was met by training by the project team. Web templates and manuals were also deployed

- Expertise in all aspects of the digitisation life-cycle, such as metadata, preservation strategies, etc.
 - This was addressed by training, by experimentation and by support from the project team
- Technical support and assistance
 - This was met by support from the project team.

Impact on Website Design

The user requirements mandated a number of aspects of the project's work, particularly with regard to the website:

- The website had to include a single point of access to the distributed participant sites
- The website had to insulate end users from the details of where their chosen content was created and stored
- The website had to host contextual information, to add value and meaning to the individual content elements
- The website had to include integrated storylines and presentations, built upon the raw material provided by the participants
- The website had to provide a database of images and digital content, which could be searched and browsed by the end-user
- The website had to provide contact details for support and
- The website had to host training and support materials, such as the online website manual.

All of these requirements meant that the project had to include a portal, which supported project-wide searching, consolidated image database and contextual information.

Best Practice Guidelines for Digitisation Projects in Ireland

This section presents a collection of best practice guidelines for local authorities and cultural institutions, contemplating, or already involved in digitisation projects. The guidelines include best practice suggestions for each step of the digitisation life-cycle, including:

- Digitisation project planning
- Selection of material to be digitised
- Intellectual Property and Copyright
- Establishment of a digitisation environment
- Handling of original items
- The digitisation process
- Preservation of the digital master material
- Metadata
- Preparation for online publication
- Online publication and
- Project management.

The guidelines reflect the experience of the pilot projects funded under the Cultural Heritage Project, as well as desk research carried out by the project team. John McDonough, Archive Project Leader, RTÉ Sound Archives has also provided expert advice, particularly in relation to audio guidelines.

Project Planning

Any digitisation project should be thoroughly planned in advance. The project plan should deal explicitly with the following topics:

- The reasons for the project
- The target audience
- The expected benefits
- The personnel who will work on the project
- The tasks to be carried out
- The results to be expected
- Project timescales and
- Management procedures (meetings, reviews, etc.).

The project planning should take into account work carried out by other projects in the same area. Time dedicated to desk and online **research** is very worthwhile.

The creation of a database which tracks the progress of holdings as they pass through the digitisation process (a **digitisation management knowledge base**) is strongly encouraged. This can help to track progress, to avoid delays, to ensure that delicate items do not get handled more often than necessary, to generate metadata, etc.

| Right |
Portrait of
George
Charles
Bingham,
3rd Earl
of Lucan
1800-1888



Courtesy
of Mayo
County Library

Selection of Material to be Digitised

Each digitisation project will have its own reasons for being carried out. This will have a major impact on the decision as to which items in a collection are to be digitised. The **selection criteria** should be clear to the project and should be documented. Common criteria include:

- Opening new modes of access to collections
- Protecting fragile items from excessive hands-on access by replacing such access with virtual access
- Marketing and publicity for the collection
- Commercial exploitation and re-use
- Copyright status of the items and
- Development of skills in the project team.

Having established the criteria for selection, the actual items to be digitised should be selected. If important items do not meet the criteria, it may be necessary to review the criteria.

Having selected an item, its details should be entered into the digitisation management knowledge base. Here, its progress will be tracked through the digitisation life-cycle.

Intellectual Property and Copyright

The digitisation project team must ensure that the digitisation and any subsequent online publication does not impinge on copyright. The copyright status of each item must be ascertained. Where items are not in the public domain, or where copyright has not yet expired, the holders of copyright must be contacted and their consent gained.

- It is very important to comply with the relevant legislation including the Copyright and Related Rights Acts, 2000
- This aspect of the project can introduce significant delays due to a refusal or failure to reply from copyright holders. Payment for copyright may also have an impact on the project budget
- Failure of a copyright holder to respond to a request for consent does not constitute consent; where no response is available, copyright clearance should be assumed to have been refused
- Projects may wish to focus initially on items in the public domain, or on items where copyright to a large number of items is held by a single entity
- Copyrighted materials should be protected from exploitation when published on the web. Possible measures include the following:
 - Restriction of image quality to low levels, so that the viability of a re-use of the image is limited
 - Visible copyright notices overlaid on the image
 - Publication of copyright notices beside each image and
 - The use of digital watermarks.



| Left | Lough Rynn House, Mohill, Co. Leitrim

Courtesy of Leitrim County Library

| Right | Dublin and Kingstown Railway Granite Pavilions and Tunnel Entrance at Lord Cloncurry's Demesne at Maratimo [Maretimo] near Blackrock, Co. Dublin



Courtesy of the National Library of Ireland

Establishment of a Digitisation Environment

An appropriate environment and hardware/software system must be in place before digitisation can begin. The elements of such an environment include hardware for the digitisation process itself (e.g. scanners, digital cameras, copy stands, other hardware), a computing infrastructure to which the hardware is connected, image processing software and a digitisation management knowledge base. The working environment should be appropriate to the material being digitised, with care taken, for example, with light, humidity, vibration, disturbance and movement of the originals.

The digitisation environment will depend to a large degree on the objectives of the project and the items being digitised. It should also be noted that in the case of audio and video digitisation in particular, the technology surrounding digitisation is quite specialised and that the specific requirements of a digitisation project will affect issues such as storage media and file formats.

Digitisation Hardware

- Most digitisation projects will require a flat-bed scanner and a digital camera
- The largest affordable size of scanner should be used. Folding and mosaic-scanning should be avoided

- Fragile articles or those which cannot be made flat (e.g. some bound works) should be digitally photographed
- Expert advice and assistance in setting up the digital photography environment may be worthwhile
- The quality of the digital item produced by the digitisation project will be constrained by the capabilities of the hardware – the best possible master image should be created. This in turn means that the best camera and scanning equipment which the project can afford should be used
- Hardware which is compatible with the image-processing software or compliant with a standard such as TWAIN should be preferred. This will have a significant impact on the effort required for the actual digitisation process
- A list of desirable hardware features should be drawn up and used to evaluate various hardware options
- Contact with other digitisation projects in the same area will provide useful feedback and suggestions.

Software

While most scanners and digital cameras are supplied with basic software, more advanced image processing software is likely to be needed.

- A list of software features should be drawn up and used to evaluate the various types of software available. This is particularly important if the project uses Optical Character Recognition software, where the range of offerings and the coverage in terms of features are both very wide
- Software compatibility with the selected hardware is very important
- Discussion with other projects which have used the various software offerings available will be fruitful in identifying flaws or extra features of particular programs



| Left | Portrait of Sir Robert Shaw MP, Lord Mayor of Dublin 1815-1816

© Hibernian Magazine, October 1806, Courtesy of National Library of Ireland

- As an absolute minimum, the software must be capable of:
 - Opening very large image files
 - Modifying the resolution and the colour depth
 - Saving multiple different versions, in different file sizes

- Selecting and copying a part of the image, and saving this as another file and
- Exporting images in different file formats, including the web standards JPEG and GIF
- Several free software packages provide this level of functionality; however investing in a commercial product is likely to pay dividends in time, effort, documentation and technical support.

Computing

- The most powerful possible computer environment for the software and the hardware should be used. The cost of PC technology is very low compared to other costs (e.g. personnel time) and can have a major impact on the time taken for the project. A fast processor and large amounts of memory will speed digitisation. A large hard disk will allow storage of large digital image files
- The computing platform should be backed up on a regular basis. The repeated digitisation of fragile items due to the loss of data from the computing platform should be avoided.

Environment

- Where necessary, the working environment should adjusted in order to protect the source items. Issues such as sunlight, humidity and vibration should be considered
- Expert (curatorial) advice should be sought before any handling of originals takes place
- A dedicated digitisation workspace is strongly recommended, in order to minimise movement and handling of originals.

Handling of Originals

- Expert (curatorial) advice should be sought before any handling of originals takes place
- Ideally, original materials should be handled as little as possible

- Appropriate precautions (gloves, etc.) should be used in the handling of fragile materials
- Repeated digitisation should be avoided – digitise once, for maximum quality, and process the master file, rather than redigitising the original
- The digitisation hardware should be adjusted to suit the originals, not vice versa. Thus, for example, a book stand may be used, rather than books being excessively flattened for scanning purposes
- If a mosaic approach to scanning is being used, ensure that a sufficient overlap between mosaic-tiles is allowed for, to allow the subsequent joining of the tiles into a final image
- Be prepared to be flexible – an inconvenience to the digitisation project can be overcome, while damage to a unique artefact may be irretrievable
- If necessary, bring the digitisation equipment (e.g. digital camera) to the source item, rather than transporting the item itself.

The Digitisation Process

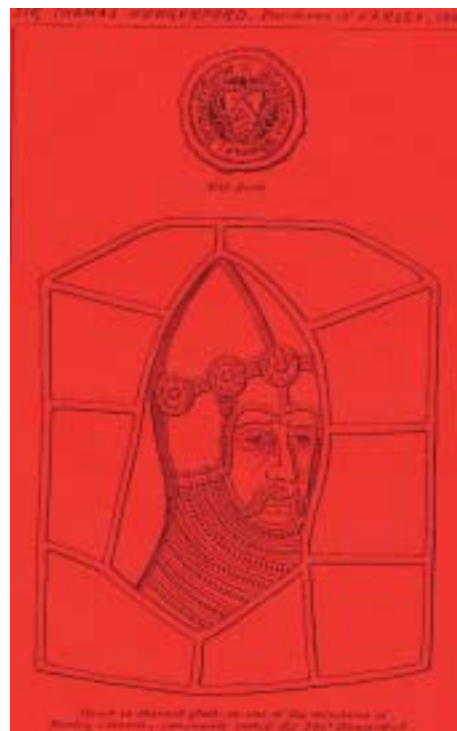
All items should be digitised once and at the highest or best practicable quality, on the understanding that lower resolution and surrogate copies can be created from the master copy.

Scanning

- Scan only the material on a flatbed scanner which will not be damaged by being pressed flat onto a hard surface
- Ensure that the glass scanning plate is completely clean at all times
- If possible, scan only items which fit, in one piece, on the flatbed scanner
- Test the scanner, and its output, on non-sensitive material before beginning to scan original source material. Train users with the same non-sensitive material

| Right |
Head on
Stained
Glass of
Sir Thomas
Hungerford:
drawing
from the
original
at Farley
Church,
Somerset
England,
1389

*Courtesy of
Clonakilty
Museum,
Co. Cork*



- Before establishing workflow or work-batching process, carry out some end-to-end scanning and image processing, in order to ensure that the end result of the workflow will be what is anticipated
- Scan at the highest resolution that is feasible given the limitations of scanner and of PC storage
- Scan with the maximum appropriate colour depth, given the same limitations
- Quality control of the scanner output is important – at scanning time is the most convenient time to address any issues with quality.

Photography

- Do not photograph without a tripod
- Ideally use a copy stand with specially tailored lights
- Ensure that backgrounds will show the item clearly.



| Left | Portion of the Walled Garden at Corkagh Estate, Clondalkin, Dublin

Courtesy of South Dublin County Library

Optical Character Recognition (OCR)

- Evaluate multiple OCR software offerings before selecting a particular product
- A major element of any OCR project is the identification and manual editing of mistakes, ambiguities and locations where the text could not be processed. An OCR package which provides a friendly user interface for carrying out this task can save considerable time and effort
- OCR works best with documents which are in good condition – folding, wrinkling and discoloration of the source material will increase the number of errors and faults in the OCR process. Pre-Treatment, where possible, of the source material should be carried out to avoid this
- The use of image processing software, to remove discoloration and improve contrast, before the use of OCR software, should be considered for material which is not in perfect condition.

Preservation of the Digital Master Material

This addresses the most appropriate file formats for the creation of master files, as well as the best media for the medium-to-long term storage of the master files. The question of the best strategy for longer-term preservation of the digital items is also considered.

File Formats

Unless the project has good reasons for taking other choices, the file types below should be used as Master File formats (i.e. the results of the scanning should be in the following file formats). These formats are the standard formats used by the pilot projects and in projects across the world and are most likely to be supported by present and future hardware and software platforms.

Images: Tagged Image File Format (TIFF). Web-Ready formats, such as JPEG and GIF can be derived from TIFF by most image processing packages.

- **Audio:** Linear WAV (at least 16 bit and 48 kHz). MP3 for web publication and access
- **Video:** MPEG4 or MOV
- **Virtual Reality/3D:** VRML.

Storage Media

- The digitised content will first be stored on the relevant computing platform. This serves as short-term storage, while backups may be used as longer-term storage
- CDROMs are the mass-market archive material of choice and DVD is also an accepted medium for video storage. The highest quality media should be selected (e.g. 'gold' CDROMs preferably without labels)
- Ideally two copies should be made of each digital file. The second copy should be stored in a geographically distinct location to serve as a disaster recovery copy

- Longer-term storage is likely to be on some form of digital media tape such as Digital Linear Tape (DLT), or on a hard disk server. This has a significantly longer expected lifetime than CDs or DVDs
- Regardless of the choice of medium, it must be borne in mind that the medium will become obsolete in near to mid-term future. Within five years, migration to new storage media is likely to be a necessity.

Preservation Strategies

The issue to be addressed here is the obsolescence of hardware and software platforms, including storage media, in the next five to twenty years. This issue has already had a major impact on early digitisation initiatives such as the UK's Domesday Book project.

- The most appropriate preservation strategies include emulation and migration
- *Emulation* involves creating an environment on new hardware and software platforms that behaves exactly as an older platform. The advantage of such an approach is that it lengthens the lifetime of existing storage

media, file formats, etc. The disadvantage is the cost of creation of the emulation environment

- *Migration* involves the copying of all stored material from an older platform to a more modern one. An example is the migration of vinyl records to CDs, in expectation of the decline in support for the record player. While this is a relatively simple procedure, the effort increases with the amount of data stored
- Regardless of long-term strategy, quality control of existing storage media should take place periodically
- Existing media should be 'refreshed' – files should be copied from old media to newer ones on a periodic basis, to protect the data from the decay of the carrier medium
- During the initial storage process and during the refreshing process, it should be verified that data has been successfully written. Faulty media are not unknown
- Digital media is not immune to variations in humidity and temperature and should be stored in appropriate conditions.

| Right | Volunteers in the First World War, The Waterford News, February 1916



Courtesy of Waterford City Library



| Left | Recruitment advertisement on the front page of The Waterford News, November 1915

Courtesy of Waterford City Library

Preparation for Online Publication

File Processing

- Delivery versions are created by opening the master TIFF file in an image processing package, and exporting it in JPEG, GIF or other 'delivery' file format
- Typically, GIF colour resolution can be reduced, to 256 colours. If this shows an appreciable loss of quality, a higher colour resolution can be used. Choosing the right colour resolution usually requires some subjective decision to be made

Metadata

- Existing metadata models and standards should be reviewed before creating your own. Bibliographic, archival descriptions models, etc. do vary and evolve and individual institutions requirements will differ, so it is important to research carefully
- Creating a totally new metadata model for cultural collections should be avoided
- Unless the project has good reason not to do so, the **Dublin Core²** fields should be included in the metadata model. While museums may find the CIMI model better fits their holdings, a common core set of attributes should be aimed for, which will enable cross-collection searching
- While a naming scheme or naming convention may be very useful, a full metadata model is better, both in terms of the amount of data that can be stored about an item, and also to enable more powerful searching and interoperation with other projects.
- 72 Dots Per Inch (dpi) is a reasonable choice for many images which are to be viewed on-screen. For lower resolutions, a subjective decision of 'acceptable quality' will be required
- Choosing file format, colour resolution and pixel resolution involves deciding on what is 'acceptable' quality. A balance must be struck between quality and file size
- Unless material is being streamed, video and audio material will typically involve large file sizes, with the file downloaded before viewing offline. However, the download time can be adjusted by changing the frames per second of the video, the sampling rate of the audio, etc.

Specific 3D and Virtual Reality Issues

- Viewers for 3D and VR material are not yet widely distributed with operating system software. This contrasts with image, audio and video, which are commonly provided with Windows software

² Dublin Core Metadata Initiative, Dublin Core Metadata Element Set, Version 1.1, available at: <http://dublincore.org/documents/dces>

- Ensure that viewers for any 3D or VR material are readily available. Make the viewer software available from the same site as the material
- Modern PCs, with a focus on games, will often have hardware accelerators and increased graphics memory. This can have a profound effect on the VR viewing experience. However, bear in mind that many users continue to use PCs which are five or more years old.

Online Publication

Many digitisation projects in the cultural area lead to the creation of online cultural resources, usually a website with images, metadata, 3D artefacts, etc. A large body of knowledge covers the creation of websites; only a few guidelines are provided here:

- Due attention should be paid to universal access and to the utilisation of websites by the partially sighted and other disabled persons
- Web pages should be short enough to minimise the amount of scrolling necessary by the user
- Images should be small enough not to disrupt the browsing experience. Larger images should be linked to from the web pages, with a note to the effect that the image is large and download may be slow
- The use of animations, Flash and similar technologies should be treated with care. It should be possible to bypass lengthy introductory animation sequences
- Links to external resources should be verified on a periodic basis, in order to minimise dead links and the annoyance associated with these.

Project Management

The success of any project, including digitisation projects, is influenced to a large degree by the management of the project. This section provides a small number of guidelines specific to the management of digitisation projects in particular.

| Right |
Portrait of
sisters Eva
& Constance
Gore-Booth,
of Lissadell
House,
Co. Sligo



© Sligo
County Library

Digitisation process management

A typical digitisation project will involve dozens, hundreds or even thousands of items. In order to achieve an efficient project, it is important that a work-flow be established that maximises the through-put of the digitisation team. In addition, information resources such as the digitisation project knowledge base will be of significant importance.

- Establish and document each of the steps that an item must go through during the digitisation process. These will include, for example:
 - Retrieval from storage/usual location
 - Cleaning or preparation
 - Scanning or photography

- Return to usual location
- File naming
- File storage
- Creation of online delivery versions of large master files and
- Backup of servers/storage media



| Left | Poster advertisement for the letting of grazing at Burton Park Demesne, Churchtown, Co. Cork c.1900

Courtesy of Cork Archives Institute

- The name, identifier and other relevant information for each item to be digitised should be entered, as suggested above, in the digitisation project knowledge base, as soon as the item has been selected. The status of the item (i.e. which step has last been completed) must also be recorded, on an ongoing basis
- Articles which require similar activities or hardware setups should be digitised together. This reduces time spent setting up digital cameras, configuring scanners, etc. The parameters for hardware setup should be documented, in order to allow any digitisation to be replicated in the event of file loss, etc.

- The location, phone numbers and backup staff of key service delivery personnel (e.g. IT support) should be noted at the start of the project and remain available throughout.

Training and Team Development

Digitisation projects often expose the staff of cultural institutions to new technologies for the first time. Such technologies include digitisation hardware, web publication, image processing, metadata tagging, database development and population, etc.

- If possible, include at least one person with appropriate information technology skills in the project team
- Identify sources of support, training and advice
- Assess the state of knowledge of the personnel to work on the project and the IT skills that they will need, well in advance of the project. Identify training needs and fill these **before** the project starts
- IT skills are not the only ones which may be needed. Specialist skills may be needed, as noted above, in the handling of delicate documents, artefacts, etc. Appropriate training maybe available from the individuals whose responsibility includes the source material
- It is better to have a small core of skilled personnel working on a project than a larger population of occasional participants
- While the use of third parties can be convenient, it should be borne in mind that any expertise or experience to be gained during the execution of the outsourced work will be lost to the cultural institution at the end of the project. This also applies to temporary staff who are employed for the duration of a project.

Recommendations

Introduction

The Cultural Heritage Project has been a major success for all involved. In a short timeframe it has established centres of expertise in digitisation around the country. A major website has been developed with suites of services focused on the digitisation professional and on the end-user.

The value of digitising cultural material has been well proven. Cultural digitisation projects serve in particular the educational market, the general public, the geographically peripheral, those of limited mobility, immigrants and the newly-arrived, the commercial sector and creative workers. In addition, they add value to the existing holdings of libraries, museums and archives, by creating new artefacts and services, by attracting new users and allowing these institutions to be used in new ways.

- The enthusiasm and flexibility of library staff, which bodes well for any future projects in this area
- The high level of public interest in local history material online
- That digital representations of cultural items were themselves quite different products from the original items, with new potential for enjoyment and re-use in the creative and commercial sectors
- The importance of appreciating and fulfilling the requirements of the end-user of the digital material
- The value of context, storyline and introductory material, to cement together the output of multiple independent projects and

| Right | Extract from
Primary Valuation of Ireland,
Sir. Richard Griffith 1848-1864

MONASTEREVIN- TOLL (Oval. S. 26.)									
1	William McDermott,	Marquis of Drogheda,	Land,	11	1	29	0	0	0
2	Michael Dwyer,	Same,	House and garden,	0	1	26	0	0	0
3	John Harris,	Same,	Land,	19	1	27	0	0	0
4	Thomas Griffin,	Same,	House and garden,	0	0	25	0	1	0
5	Christopher Connel,	Same,	House and land,	5	0	15	1	50	0
6	James Dowling,	Same,	Land,	13	0	25	0	0	0
7	James Dowling,	James Dowling,	House and garden,	0	3	34	0	15	0
8	James Dowling,	Marquis of Drogheda,	House and land,	7	1	29	0	15	0
9	Robert Gorman,	Same,	Land,	0	1	1	0	0	0
10	Patrick Gorman,	Same,	House and land,	0	3	0	1	0	0
11	Thomas Griffin,	In fee,	Land (high),	50	3	34	4	10	0
12	Charles Griffin,	Marquis of Drogheda,	House and land,	0	0	39	2	0	0
13	Thomas Kelly,	Same,	Land,	10	3	24	0	0	0
14	Michael Murray,	Same,	House and land,	11	0	33	0	15	0
Total,				183	0	34	43	0	0
MOOREHEAD TOWNLAND (Oval. S. 26.)									
1	Marquis of Drogheda,	In fee,	House, offices, stables and farm houses, offices, and land,	1287	0	0	0	0	0
2	Joseph Fleming,	Marquis of Drogheda,	House,	0	0	0	0	0	0
Total,				1287	0	0	0	0	0
OWILL (Oval. S. 27.)									
1	Marquis of Drogheda,	In fee,	Land (high),	54	2	23	0	0	0
2	Thomas Dwyer,	Marquis of Drogheda,	House and garden,	0	3	2	0	0	0
3	John Hyland,	James Doherty,	House and land,	0	3	2	0	0	0
4	James Doherty,	Marquis of Drogheda,	House, offices, and land,	347	0	10	307	0	0
Total,				347	0	10	307	0	0

Courtesy of Kildare County Library

The Cultural Heritage Project demonstrated in particular the following:

- The viability of establishing digitisation units in local libraries, museums and archives
- The feasibility of establishing digitisation projects even in organisations with limited IT skill resources and no digitisation expertise

- The importance of a central portal site, to host end-user material and to integrate the results of multiple smaller digitisation projects.

Key Recommendations

The core recommendations of the Cultural Heritage Project are as follows:

1. That a national digitisation strategy for public libraries be established, with the following objectives:
 - To stimulate the use of, and involvement with, the Internet by the general public
 - To support the eContent, commercial, creative, tourism and educational sectors
 - To develop local and national history and culture websites based on the collections of public libraries
 - To enrich the quality of life of all citizens and
 - To support social inclusion and life-long learning.
2. That the national digitisation strategy be implemented by a national digitisation programme, a network of autonomous digitisation projects on the history and culture of their county/city with links to a programme portal which will present aspects of the history and culture of Ireland
 - Each library authority project should be run as an independent entity, with responsibility for the selection of material to be digitised, for the digitisation process, for the creation of metadata and for the preservation of the digitised material. Common website templates and publishing toolsets can be made available to projects, should they wish to take advantage of them
 - Each library authority may apply for digitisation funding under the national digitisation strategy. The proposal should outline the material to be digitised, the manner in which the project will be managed, the cost of the digitisation project, the target audience and any other relevant information
 - The programme should be non-competitive – each authority that makes a clear and viable case for funding should be funded. An appropriate allocation of funding per project should be made. The amount of funding for each project should be influenced by the amount and importance of the material to be digitised, the nature of the target audience and the contribution that the project will make to the overall digital cultural landscape



| Left | Strokestown Park kitchen, Strokestown, Co. Roscommon

Courtesy of Irish Architectural Archive

- The projects should aim to comply with a set of guidelines published by the programme, covering such issues as metadata standards, file formats, disabled-friendly websites and preservation. Such guidelines will reflect international best practice. The outline of such guidelines is presented in this report
 - Projects should focus on the community, on local content and on the needs of the end users. Projects should deal with digitisation from two complementary viewpoints:
 - The creation of digitised cultural content and
 - The consumption and re-use of this content

These are the viewpoints respectively of those who digitise the cultural material, and those who access the digitised material.
3. That the programme implement a central portal website facility linked to all the library authority sites. This portal will focus on the provision of end-user services. These will include:
- Introduction to the programme
 - Contact information for the programme and for the projects
 - Programme-Wide search and navigation aids
 - Integrated user presentations, utilising content created by the individual projects
 - Contextual and narrative information
 - Databases of projects, digital items online and special collections. These databases should be populated by the individual projects as part of their online publication activity and
 - The portal website will also host training and support materials for the programme projects. These will include optional site templates and tools, a bulletin board for support queries, updated guidelines and technical standards.
4. That the portal website be established and maintained by a central body, ideally a national digitisation strategy team at An Chomhairle Leabharlanna. The portal will build on the experience gained in the Cultural Heritage Project. As required, third parties may be engaged to create historical context material, add user facilities, etc.
- The strategy team will provide technical and project management training to the projects, if a requirement for such training is identified. The training will be available in Dublin or in regional centres, as required. Training material will reflect the needs of the projects, but may include project management, digitisation procedures, best practice, metadata, website use, etc. Support documentation will be hosted on the portal website
 - The strategy team will continue to monitor the state of the art in relation to digitisation in order to update guidelines and standards
 - On an occasional basis, the strategy team may create themed presentations which build upon the material created by the individual projects. These themed presentations have been shown to be of particular value for educational and general-public users and to add significant value to the distributed holdings of the various projects within the Cultural Heritage Project. Such themed presentations will be hosted on the portal website
 - The strategy team will liaise with national bodies such as the National Library of Ireland and the National Museum of Ireland, on behalf of all projects in the programme. This liaison will focus on cooperation and access to content, in particular access to materials, for example photographs and prints, copies of which are held locally, but where copyright and reproduction rights are vested in a national body. For example, many libraries hold copies of material in the Lawrence Photograph collection, the originals of which are held by the National Library of Ireland

- The strategy team will liaise with the Department of Education and Science with a view to development of new educational resources based on the programme content. These resources could be linked to *Scoilnet*, the national educational portal website, in collaboration with the National Centre for Technology in Education
- The strategy team will liaise with libraries, museums, archives in Northern Ireland and the Public Record Office of Northern Ireland in relation to material and themes of common interest. The strategy team will also liaise with other institutions holding Irish interest material such as the National Library of Australia
- The strategy team will coordinate and host seminars and ongoing training for projects involved in the programme, in order to provide opportunities for networking, cross-fertilisation of ideas and passing-on of lessons learned.

Costs

The project team estimates that the cost of the total investment in a two-year digitisation programme would be €3.2 million.

It is recommended that funding from the Information Society Fund should be made available to the digitisation programme, providing funding of up to 75% of the total costs.

This investment is 'once-off' in nature. Following the initial investment in training, equipment and digitisation of the most important existing cultural holdings, the ongoing digitisation of material by library personnel will be a 'housekeeping' overhead, and included in the day to day running costs of the library.

The project team believes that this level of investment, properly managed and monitored, will provide excellent value for money. In order to ensure this, the progress of funded projects should be monitored, as outlined below.

Monitoring the Strategy

The progress of projects funded under the programme should be reviewed on an annual basis. Progress and results should be examined in the light of the original project proposals, and feedback should be provided to the programme and to the projects themselves. Such a review mechanism will help to identify any difficulties or problems with the programme.



| Left | Garden Scene at Geashill Castle, Geashill, Co. Offaly

Courtesy of Offaly County Library

Appendices



Appendix One: Pilot Digitisation Projects

An important aspect of the Cultural Heritage Project has been the selection and execution, in cooperation with players in the libraries, museum and archives sectors, of five Pilot Digitisation Projects. These pilot projects have addressed key issues in the digitisation process as well as establishing a level of expertise in all elements of the digitisation life-cycle. The pilot projects in the museums and archives sectors were funded with the assistance of The Heritage Council.

Pilot Project Selection

As described in the **Implementing the Project** section, the pilot projects were selected following a competitive call for proposals and evaluation process.

The terms of reference of the call for proposals were:

- To develop published guidelines and methodologies for the digitisation and web publication of a range of different types of content held by libraries and other cultural institutions
- To establish centres of expertise in local cultural organisations (libraries, museums and archives), which will be in a position to provide assistance and consultancy to other, similar cultural organisations in forthcoming projects such as the national digitisation programme.

There was a very good response from libraries, museums and archives to the call for proposals for the Cultural Heritage Project. The standard of the proposals overall was excellent and showed a clear understanding of the objectives of the project.

Following the evaluation, five proposals were selected for funding as follows:

Public Libraries: Dublin City Public Libraries, Mayo County Library, Waterford City Library;

Archives: Cork Archives Institute with Clonakilty Museum;

Museums: Waterford Museum of Treasures.

Pilot Project Training and Support

A training programme for the participants of the Cultural Heritage Project including the pilot project Officers was held at An Chomhairle Leabharlanna on the 30 September and 1 October 2002.

- The first session of the training included an overview of the project and presentations on project management, research techniques and the digitisation life-cycle. All pilot project officers were invited to provide brief presentations on the project on the occasion
- The second day of the training programme comprised of presentations on project technology infrastructure, metadata and web publishing and digitising text and images
- A half-day practical session on text and image selection, capture and processing, metadata manipulation and web publishing was then provided for the participants.

Further practical training on website population was made available to some project team members, in conjunction with the local studies national thematic network representatives training days in November 2002 and January 2003. The Cultural Heritage Project team provided technical support as required throughout the duration of the project.

Dublin City Public Libraries

The Dublin City Public Library pilot project proposal was submitted under the action line of the digitisation of printed text, manuscripts and maps. The project team was headed by City Librarian Deirdre Ellis-King, coordinated by Eoin McGrath and subsequently Bernadette Cogan, assisted by team members Alastair Smeaton, Helen O'Donnell and Séamus Meaney.

The project objective was to explore and digitise a variety of printed materials sourced from the Dublin City Archive collection, in order to open access to material that has to date had restricted accessibility for reasons of conservation and

preservation. It was envisaged that the project would provide the authority with an opportunity to showcase material from its collection and to enhance expertise within the authority.

The material sourced from the Dublin City Archive was chosen to integrate with *The Big House and Landed Estates in Ireland* theme of the local studies projects. As such, it was comprised of a range of document types including manuscripts, maps, printed text and photographic and print images, all of which related to the Shaw Family of Bushy Park House, Terenure, Dublin.

Project Progress

The project involved a number of stages, the first of which was the **selection** of material. For this, the Dublin City team devised a series of criteria for determining the suitability of individual items for inclusion, such as:

- Use a format based or thematic approach
- Select material that meets clients' needs

- Select material of intellectual, historic, artistic, etc. value
- Select material for which digitisation enhances access and use
- Select material which contributes to a national resource and
- Select material with regard to technical feasibility.

Once selected, the question of the **copyright** status for each item was established, copyright permission sought where required and copyright notices attached to digitised images where appropriate. The project team identified the copyright element as among the more complex steps of the process. To protect the items when exposing them on the content website, a copyright policy was established in the form of a copyright statement on the site, together with the uploading of images in low resolution³ format to reduce the feasibility of unauthorised use. Copyright acknowledgments were also included with those images obtained from external sources.



| Left | Dublin City Public Libraries pilot project home page

³ The sharpness or clarity of an image is measured in dpi (dots per inch) for printing and ppi (pixels per inch) for monitor viewing. The higher the value of the resolution, the clearer and sharper the image. Therefore high resolution images are more at risk of copyright infringement.

Prior to the actual digitisation of the material, the next phase involved the **preparation** of the material for the process, in terms of conservation or treatment for fragile items, together with the identification and procurement of the optimum hardware for digital capture and the creation of a centre of digitisation. Using scanning hardware and a digital camera, the majority of the selected material was then **digitised** on site. For certain manuscripts on skin and of larger size, it was necessary to outsource the digitisation to an expert unit.

In total, thirty-four items were digitised. These were then catalogued using an in-house image management system developed by the project team and incorporating the chosen **metadata** classifications, based on the Dublin Core Metadata⁴ classification system.

Preservation and storage of digital master copies was the next consideration and on foot of research into the media available, the Dublin City project team elected for storage of the complete set of image master copies on magnetic hard disk, with a view towards the migration of the collection with future technological advancements.

The final element centred on the **web publication** of the project content for the purpose of presentation, delivery and accessibility of the digitised collection. The project team incorporated the knowledge received as a result of training provided by An Chomhairle Leabharlanna, together with existing expertise, in order to create a cohesive and meaningful presentation of the collection on the *Ask About Ireland* website.

The team produced a set of **guidelines and recommendations** for subsequent projects, which reflected the hands-on practical experience of the pilot project team. These have been included in the guidelines published in this report.

In **evaluating** the overall project, the Dublin City team concluded that it was a very useful exercise in the development of expertise and

skills in the digitisation of content for web delivery. Furthermore, the project encouraged internal cooperation and knowledge transfer resulting in an overall net gain for the Dublin City Library Service in many ways.

The full set of reports can be accessed from the Cultural Heritage Project website.

Mayo County Library

The Mayo County pilot project was submitted under the action line of the digitisation of images, audio and video material. The Mayo County project team was headed by Austin Vaughan, County Librarian and coordinated by Richard Hickey, assisted by team members Ivor Hamrock, Richard Love, Eleanor O'Toole and Deirdre Lavelle. This team, recognising that one of the core missions of a public library service is the provision of access to the culture and heritage of the area to the public, proposed the creation of a content site to serve as a resource for all aspects of Mayo County's history and heritage in every format.

The material sourced therefore pertained to the history of Mayo and encompassed a selection of different format media including tapes, compact discs, video clips, postcards, photographs, slides and newspapers.

Project Progress

The first phase of the project involved the **selection** of the material to be digitised. The Mayo project team evaluated the material on the basis of relevance to the subject, physical condition, current accessibility, user demand, budget and copyright considerations.

Once the selection process was completed, the **copyright** status of the items was established and where appropriate, copyright permission was sought. The project team identified some key issues for project management to consider in relation to the area of copyright permission,

4 Dublin Core Metadata Initiative, Dublin Core Metadata Element Set, Version 1.1, available at: <http://dublincore.org/documents/dces>



| Left | Mayo County Library pilot project home page

such as potential difficulty in establishing ownership of copyright and costs, time and personnel involved. To protect the items when exposing them on the content website, a copyright policy was established in the form of a copyright statement on the site stating the uses for which permission need not be sought and those which required permission. Copyright acknowledgments were also included with those images obtained from external sources, together with the uploading of images in low resolution format to reduce the feasibility of unauthorised use.

In relation to the **preparation** of the material and subsequent digitisation, the Mayo pilot project team extensively researched the requirements and procedures appropriate to the variety of formats incorporated in the collection. This resulted in the use of an external unit for the digitisation of video, while the digitisation of audio and image material was undertaken on site by the project team. For this, it was necessary to purchase specialised audio capture software for the purposes of editing and enhancement, although the project team noted that the standard software applications such as those included in Microsoft Windows would be adequate for audio capture without an editing requirement.

Cataloguing, profiling and tagging the digitised material necessitated further research by the team. Examination of the various international systems in usage resulted in the development of a system which was in effect a hybrid of the Dublin Core⁵ and National Library of Australia⁶ **metadata** structures.

Once catalogued, the issue of **storage and preservation** formed the next phase of the project. The Mayo team identified the major strategies involved in counteracting problems of preservation and storage (such as obsolescence and physical deterioration) and devised a policy of storage and systematic checking to pre-empt obsolescence and deterioration.

The final stage in the project was the preparation of the material for **web publication** and the subsequent population of the Mayo County pilot content site. The project team discovered that in the case of digitised images, a considerable amount of manipulation of the image was required in terms of resolution reduction and compression to produce a suitable size and quality of image for uploading. By contrast, minimal adjustment was necessary for the digitised audio and video material.

⁵ Dublin Core Metadata Initiative, Dublin Core Metadata Element Set, Version 1.1, available at: <http://dublincore.org/documents/dces>

⁶ National Library of Australia, Preservation Metadata for Digital Collections, available at: <http://www.nla.gov.au/preserve/pmeta.html>

It is envisaged that the completed Mayo County pilot site will form the basis for a Mayo History website – planned to be the definitive web-based information source on the history of Mayo County.

The project team produced a set of **guidelines and recommendations** for subsequent audio-visual digitisation projects, which reflected the hands-on practical experience of the pilot project team. These have been included in the guidelines published in this report.

In evaluating the success of the project, the project team were satisfied that the specific objective, i.e. the creation of a content site of Mayo County's history and heritage in every format had been achieved. In addition, it was felt that the general aims of acquisition of knowledge and digitisation expertise had also been fulfilled and that the project team would be confident of **being of assistance to future projects** in the audio-visual digitisation area.

Waterford City Library

The Waterford City pilot project was submitted under the action line of the automated indexing of newspapers. The pilot project team was managed by Jane Cantwell, City Librarian and led by Emer Fitzgerald, assisted by team members Suzanne Buggy, Katherine Peak and Linda Dooley.

At the outset of the project, Waterford City Library Service was already providing searchable, electronic access to the local newspapers; the project proposal was intended to add value to the existing service by creating a digitised index and to supplement current local expertise in digitisation.

Project Progress

The first step in the project was to **research**, via the Internet, the appropriate hardware and software required for the purpose of newspaper digitisation. Digitisation of printed text including newspaper requires specific optical character recognition (OCR) software. The project team had envisaged digitising the microfilm holdings of newspaper collections, however it was discovered that the quality of the microfilm material available was inadequate for processing using OCR software. At present, while there is a considerable variety of OCR software available, the material selected for digitisation using this medium must be of good quality. Accordingly, the Waterford City team were required to revert to the original newspaper hardcopies.

The second phase of the project then involved the **selection** of individual items to be digitised. The newspaper items for inclusion were subjected to a series of selection criteria incorporating several from the published guidelines of the National Preservation Office⁷ of the UK: quality, condition, user interest, copyright, value, feasibility of image capture, sensitivity of content, etc. As a result, articles from *The Waterford News & Star* (1914-1918) were chosen to fulfil the purpose of the project and the theme of *Waterford during War* was identified.

The team investigated the area of **copyright** in relation to newspapers and concluded that the key issue in relation to copyright for newspapers is the attainment of permission. The project team researched the position with regard to copyright extensively, surveying a total of 58 Irish newspapers in order to establish the level of resistance to the granting of permission. The response determined that half of those surveyed would have no objection to libraries digitising back issues of the paper and a further 22% would not have an objection

⁷ A service of the British Library aimed at providing a focus for ensuring the preservation and accessibility of library and archive material in the UK and Ireland.

providing the purpose for which it was sought would not be in competition with their interests. In addition, they examined the position on copyright issues held by the British Library, CILIP (the Chartered Institute of Library and Information Professionals UK) and LACA (the Library Association Copyright Alliance UK).

OCR software. The images were scanned via the scanning hardware and software into the OCR software, which then successfully produced editable text files of each image. That notwithstanding, a surprisingly high level of proofing and editing of the text was required, which the team attributed to the dubious quality of the newspaper hardcopy.



| Left | Waterford City Library pilot project indexed newspaper sample web page

To protect the items when exposing them on the content website, a **copyright** policy was established in the form of a copyright statement on the site, stating the uses for which permission need not be sought and those which required permission. Users are directed to apply to Waterford City Library to obtain permission. In addition, the decision was taken to upload images in low resolution format to reduce the feasibility of unauthorised use.

The **creation of the scanned image** from the selected newspaper originals was an element that the project team found to be relatively straightforward. Having sought advice regarding the levels of resolution to scan the images to, the consensus opinion advocated a relatively high resolution to receive optimum results from

Once the text files had been produced and edited, the project team had to investigate a means of making **the text searchable** on the Waterford City pilot content site on the *Ask About Ireland* website. It was decided to make use of the automated indexing facility already available on the *Ask About Ireland* portal site, which necessitated the conversion of the text to the web script HTML in order to ensure compatibility between the text files and the search engine. For the purposes of legibility, each text item was assigned an individual web page, comprising of a thumbnail image of the original newspaper and the more legible HTML text. The image is then clickable to a larger version.

In cataloguing the collection and ascribing **metadata**, the project team discovered that two types of metadata exist: a searchable record of keywords to facilitate retrieval and a record of technical data relating to the image capture procedures used. While the team judged that the searchable record function had already been addressed by means of the online search facility, the images were attributed metadata categories in terms of context, thesaural capabilities and technical properties such as file size and file name.

Waterford City project team **concluded** that they had successfully achieved the objectives of researching and learning to create a full-text searchable online newspaper archive and making a selection of this available online. In addition, they have produced **guidelines** on the process of digitisation of newspapers, which will be made available for viewing on the website. Waterford City felt that they had gained in knowledge and expertise on the digitisation process and newspaper digitisation in particular.

Archives Project: Cork Archives Institute

Cork Archives Institute, with the assistance of Clonakilty Museum, proposed the digitisation of a sample of documents taken from collections held by the Cork Archives Institute and other documents and artefacts held by Clonakilty Museum. This proposal was developed in view of the Institute's stated objective of making archives accessible to the public, an aim which was recognised to be considerably furthered by the process of digitisation. Moreover, the Cork Archives team regarded involvement in the Cultural Heritage Project as a contribution to the development of experience and expertise in the area of digitisation for archives and in museums throughout Ireland.

In accordance with *The Big House and Landed Estate Life in Ireland* topic, the material sourced for the pilot project was to be derived from the collections of estate papers held by Cork Archives, together with documents and items relating to landed estates from the Clonakilty Museum collections. Refined for the purposes of the pilot project, the theme version selected was *The Landed Estate in Cork*.

Project Progress

To **identify the material for digitisation**, the project team investigated the subject of criteria for selection. It quickly became evident that the team's original intention of providing access to an entire collection by means of digitisation would be unfeasible logistically. A more viable selection of material was achieved by the creation of a purpose-built archival workstation and by adhering to the following criteria:

- Relevance to themes and objectives
- Intellectual content and historical value
- Conservation and preservation considerations
- Copyright and other legal restrictions
- Technical considerations and
- Available organisation and documentation.

In all a total of over 100 items were selected for digitisation and the process was managed by the creation of a digitisation database, which the team estimated to be the most critical tool for the task of selection.

The question of **copyright** was considered subsequently, with the Cork Archives team researching the issues involved and the legal position in Ireland, before turning to specific consideration of the project material. In many instances, the estate papers held in Cork Archives were given to the Institute originally in the form of donations, with copyright ownership being transferred at the time of donation. In other cases, the antiquity of the item rendered the question of copyright irrelevant.

On reviewing the copyright status of the items selected for digitisation, it emerged that it would not be necessary to seek copyright permission from external sources.

Protection of the copyrights held by the Archives in light of exposure of the items on the Internet followed therefore and necessitated further investigations to determine the optimum means. The project team explored the possibilities offered by technical measures such as watermarking⁸ and encryption⁹, before deciding on the following course:

- Individual copyright notice: a notice of copyright to be saved on to each image to be uploaded
- General copyright declaration: a statement on the 'copyright page' of the content site declaring the copyright ownership and detailing the uses prohibited and the uses for which permission must be sought from Cork Archives
- Image resolution: images would be uploaded at low resolution to reduce the viability of unauthorised usage.

Prior, then, to initiating the physical digitisation, the Cork Archives team defined the parameters of the **image specifications** employing a combination of: research, experience, the aims and objectives of the project, the features of the items, the capabilities of equipment available and any handling or conservation requirements. The equipment was chosen as a result of product reviews, studies of professional journals, specialised Internet sites and discussion with suppliers. It consisted largely of an A3 flatbed scanner, a high resolution digital camera and stand, Adobe Photoshop Imaging Software, PC and colour printer with high resolution.

The **digitisation** of the individual items was comprised of a two-step process: pre-capture preparation followed by item capture. The procedures involved in pre-capture preparation consisted of: batching the documents according to image specifications and handling requirements and the identification of conservation requirements and subsequent creation of a conservation programme.

The actual process of item capture was broken down into equipment operation, item tracking, workflow management, image editing, etc. Items were scanned or photographed as appropriate; the resultant images categorised (using a tripartite file naming convention planned carefully in view of the large number of items) and stored within a custom-built directory. Any image editing or manipulation required subsequently was carried out using imaging software (Adobe Photoshop).

The ascribing of **metadata**, preservation and storage of the images followed. The team created a schema of metadata which had reference to the Dublin Core Metadata Element Set and the Irish Public Service Metadata Standard¹⁰ and contained the classifications:

- Descriptive metadata: describing the project contents in general and the specific content, origin and format of each image
- Technical metadata: in relation to the capture process and the digitisation process
- Structural metadata: describing both the method of associating the descriptive data with the images and the context within which the descriptive metadata has been defined

⁸ Watermarking is a pattern inserted into a image, audio or video file that identifies the file's copyright information

⁹ Digital encryption is the process of changing the data structure of a digital file so that it can only be used by persons possessing the 'decryption' key.

¹⁰ Irish Public Sector Online Standards and Guidelines, User Guide to the Irish Public Service Metadata Standard, V.1, available at: http://www.gov.ie/webstandards/metastandards/ipsms_part1.pdf

- Administrative metadata: to facilitate the management of the project and the staff involved
- Meta-Metadata: a master metadata outlining the functions and contents of the other classifications.

Physical **preservation** and storage strategies were formulated in the knowledge that obsolescence of storage formats and media is a critical issue. The strategy devised was: the selection of the optimum storage media (established to be digital magnetic tape and optical media such as CR-ROM for longest-term storage), the creation of 3 sets of master copies to be stored in different locations, the storage of the master copies in archival environmental conditions at constant humidity and temperature and a long-term access strategy of sample testing every two years followed by

physical migration when indicated by deterioration, threat of obsolescence or the development of a superior storage medium.

Subsequently, the project team concentrated on **the population of the website** devising a structure with the aim of optimising accessibility for the widest possible audience. This resulted in the design of a simple layout, usage of plain and clearly visible colours, minimising download times for images and the provision of text descriptions to supplement images where necessary. Images were grouped according to type, e.g. correspondence/photographs/maps, plans & drawings/estate reports and sale catalogues, etc. Many of the images were uploaded as thumbnail¹¹ images and were made clickable to larger versions.

| Right | The Cork Archives Institute and Clonakilty Museum pilot project home page



11 A miniature display of the image, often linked to a larger version by clicking on the image

This pilot project for archives was **evaluated** by the Cork Archives Institute as having reached a successful conclusion with all images digitised and the vast majority of metadata and web content generated within the specified timeframe. The project team recognised that the volume of images selected initially was somewhat ambitious in view of the brief timescale and the groundbreaking nature of the project and that future project management would require better administration of the documentation and reporting requirements. In addition, the team noted that issues of a logistical or administrative nature assumed greater importance than had been predicted and that while certain elements of the physical digitisation such as learning the usage of digital photography was time-consuming, in general this aspect of the project proved more straightforward than anticipated.

Museums Project: Waterford Museum of Treasures

Waterford Museum of Treasures proposal was submitted under the action line of the digitisation of a museum collection, incorporating the digitisation of three-dimensional objects. The project team consisted of team manager Eamonn McEneaney, Curator and team leader Rosemary Ryan.

The project proposed the cataloguing and digitisation of selected items from their collection, the creation of a searchable online catalogue of a sample of the museum's overall collection and sought to advance the procedures for cataloguing and electronic access to collections within the museum sector. The collections, such as that of the Bonaparte Wyse family of the Manor of St. John, Waterford City, were chosen to reflect the overall theme of *The Big House and Landed Estate Life*.

Project Progress

Initially, the Waterford Museum of Treasures project team invested some time in **research** into the area of digitisation, educating and informing themselves on the topic and the range and scope of what has been already achieved in digitising cultural content and becoming familiar with terminology, issues and developments. From this, the team progressed to the development of **selection criteria** by which to identify the specific material for digitisation. A number of individual criteria were adopted including: the importance of the object, the variety of material, the condition of the object, user demand, copyright ownership, feasibility of image capture, cost, timescale and maximisation of benefit to the institution.

Reviewing the legislation and literature in regard to **copyright**, the Waterford Museum team adopted the premise that the holder of title to an object is also the copyright holder. In the case of the items held in the museum's collection, the title is held by the museum itself. In respect of any objects on loan from other sources, it was necessary to seek and be granted permission. A copyright policy was established in the form of a copyright statement on the website stating the uses for which permission need not be sought and those which required permission. Users were to be advised to apply to Waterford Museum for production quality images if desired, for which a nominal handling fee would be charged. Images would also be uploaded to the website at low resolution to reduce the practicability of unauthorised use.

In order, then, to capture the images of the items selected, the project team was required to investigate the various **hardware and software** options available. Due to the multi-dimensional composition of material such as the 12th century Waterford Kite Brooch, the 17th century Waterford Chalice and the 19th century Child's Mug, initially the prospect of outsourcing the three-dimensional digitisation was investigated.

| Right | Waterford Museum of Treasures pilot project home page



However, this option was discarded on the grounds of the cost, (which was judged to be prohibitive), timescale and the **confidence building** during the course of the project which enabled the team to envisage attempting digitisation on site. It was necessary therefore to purchase a digital camera and accompanying software for digitising. Bi-Dimensional objects were digitised making use of a flatbed scanner. In order to achieve three-dimensional images, a turntable was acquired to assist in the digital photography, together with specific three-dimensional imaging software into which the captured image was imported.

Once the images had been digitised, the team examined the issue of **indexing** the museum in-house catalogue and making it searchable online. This was achieved by exporting the data in the existing catalogue to a format compatible with that of the search-engine which was created with the assistance of the Waterford City Council Information Technology Department. The subsequent **publication** of the digitised material and searchable catalogue on the *Ask About Ireland* Internet site was an aspect

which the project team found to be complex and required a combination of creative and technical inputs in order to ensure content and visual impact.

Preservation and subsequent management of the digitised collection involved further research with the objective of establishing a best practice procedure and ensuring maximisation of return on investment. The Waterford Museum team determined that the digitisation process should follow a life-cycle rather than a linear pattern, in that the stages of the process are neither autonomous, nor of finite duration. The team felt that this was particularly evident in relation to the issue of preservation, awareness of which was required from the outset of the image capturing process. For this reason, it was ensured that all images were digitised at the highest resolution possible in order to create the optimum quality master copy, saved as .tiff (tagged image file format) files and stored on CD-ROM, with a view to migration to DLT (Digital Linear Tape) in time.

In order to manage the digital archive, the project team first needed to catalogue, profile and tag the items. Determination of the **metadata** classifications that would be used required education on behalf of the team into the subject of metadata, including the function and the schemata in current usage. In establishing a metadata system for the purposes of the project, the team noted the need for standardisation of the terminology within the museum sector in Ireland.

On conclusion of the project, the Waterford Museum pilot project team outlined their achievements as:

- The acquisition of in-house expertise in the management of a digitisation project
- The acquisition of in-house expertise in imaging, photography and web publication and the creation of searchable online catalogue indices
- The attainment of knowledge with regard to hardware and software for digitisation of images of differing types, in particular three-dimensional objects.



| Left | The Waterford Kite Brooch, of Viking origin c.1100

Courtesy of Waterford Museum of Treasures

Appendix Two: National Thematic Network of Local Studies Projects

The establishment of a national thematic network of local studies holdings formed a core task of the Cultural Heritage Project. This was a highly inclusive element which sought the involvement of all local authorities to produce a nationwide network of individual, but inter-related, Internet content websites. The content sites were intended to showcase digitised highlights of each authority's collection and to be inter-linked by a common theme and common portal website. In order to accomplish this, the objectives of building local expertise in digitisation and promoting the collections within the local authorities needed to be achieved, in addition to enhancing communication and cooperation among local studies librarians by means of sharing experiences and knowledge.

The role of active participation in the network was suited particularly to the local studies representative of each individual local authority. Each authority was invited to put forward a representative in September 2002 (see appendix five) and a total of thirty out of thirty-two authorities responded, proffering one, or in some cases two or three local studies representatives.

Local Studies Librarians Regional Groups

Five regional groups of local studies librarians were set up in October 2002, each one with a coordinator appointed following nominations from local authorities. These areas did not coincide with the regional boundaries, but were devised to facilitate contact between each group of local studies librarians. The five regions set up were as follows:

- **Border/North-West:** Donegal, Leitrim, Monaghan, Sligo, Roscommon, Mayo – Coordinator: Willie O'Dowd, Roscommon County Library Service
- **East Central:** Dublin City, South Dublin, Dún Laoghaire-Rathdown, Kildare, Laois, Carlow, Wicklow – Coordinator: Kieran Swords, South Dublin Library Service
- **North/East:** Louth, Meath, Fingal, Westmeath, Longford, Offaly – Coordinator: Frances Tallon, Meath County Library Service
- **South-West/Mid-West:** Galway, Clare, Limerick County, Limerick City, Kerry, Tipperary – Coordinator: Michael Maguire, Limerick City Library Service

| Left | The Big Houses Across Ireland web page





| Left | The national thematic network (local studies) content site template

- **South/South-East:** Cork County, Cork City, Waterford City, Wexford, Kilkenny – Coordinator: Celestine Rafferty, Wexford County Library Service.

The role of the coordinators was in liaising with the project team, on behalf of their region, for the purposes of training and material selection.

National Thematic Network of Local Studies Projects – Training

The first training programme for the participants of the Cultural Heritage Project, including the Regional Coordinators for the national thematic network, was held at An Chomhairle Leabharlanna on the 30 September and 1 October 2002. This provided the Coordinators with an introduction to the overall Cultural Heritage Project and enabled them to meet with other participants and be apprised of other aspects of the project such as the pilot projects and project teams.

- The first session of the training included an overview of the project and presentations on project management, research techniques and the digitisation life-cycle
- The second day of the training programme comprised of presentations on project technology infrastructure, metadata and web publishing and digitising text and images
- A half-day practical session on text and image selection, capture and processing, metadata manipulation and web publishing was then provided for the participants.

A one-day training on digitisation issues and on the national thematic network was then organised in each region¹², throughout November 2002. All of the local studies representatives were invited to attend the training held in their own region. Regional Coordinators were involved in the practical arrangements of the event and in the training itself by providing a presentation on their local studies collection. The training involved: an outline of the Cultural Heritage Project in general, a detailed description of the procedures and involvement required in the national thematic network, an introduction to the concept of digitisation and to the *Ask About Ireland* website

¹² Training took place in Navan Central Library and Dunshaughlin Library (04/11/2002), Tallaght Central Library (07/11/2002), Enniscorthy Library (14/11/2003), Roscommon Central Library (18/11/2002) and Limerick City Hall (22/11/2002).

and a practical session in which the participants themselves undertook scanning an object and the mechanics of web population using their template content websites to practice. There were a total of 30 attendees including staff from 26 authorities. Feedback was sought and general comments with regard to the training were very positive.

In January 2003, a Cultural Heritage Project Seminar session was held, in conjunction with which a further practical training on website population was made available to the national thematic network Representatives. This was to serve as a refresher prior to the scheduled population of websites in February 2003. As a result of requests by a small number of individual authorities in February and March 2003, some individual training was also provided by An Chomhairle Leabharlanna.

The Cultural Heritage Project team supplied technical support as required throughout the duration of the project.

National Theme: The Big House and the Landed Estates in Ireland

The theme chosen by the Cultural Heritage Project Panel for the national network was that of *The Big House and Landed Estate Life in Ireland*. As a topic of national historic significance, it was deemed likely to have relevance within all local studies collections and to appeal to a general audience of public users.

In the interests of historical accuracy and for expert advice on the topic of the Big House, the Cultural Heritage Project team enlisted the services of **Dr. Terence Dooley**, a postgraduate fellow at the Department of Modern History, National University of Ireland, Maynooth and the author of several books¹³ in the area.

At each regional training day held in November 2002, the national thematic network representatives were advised of the timescale and work plan involved in the project. The first stage in the process for the representatives required the assessment of the material within their local studies collection in relation to the Big House and the identification of the most suitable collection. Once this had been established, the next step was to select a topic, or storyline, to add interest to the resulting website – examples of which were suggested broadly to them to be social, political, economic and lifestyle themes. A list of the material chosen was then to be prepared and forwarded to An Chomhairle Leabharlanna by mid-December 2002.

On receipt, the lists of material were submitted to Dr. Terence Dooley for appraisal in terms of historical content and cohesiveness. Where appropriate, suggestions and recommendations were made to local teams. In general, the lists of material provided were of a very high quality and impressive range and demonstrated a strong level of interest and enthusiasm for the project on the part of the local studies representatives.

National Thematic Network Websites

The national thematic network component of the Cultural Heritage Project website can be viewed on the *Ask About Ireland* website.

The *Big Houses Across Ireland* page serves as a portal to each authority's individual content site, access to which may be gained either by clicking on the relevant area of the map of Ireland, or by clicking on the link listed under each county's name on the *Big House* index table.

¹³ T. Dooley, *Sources for the History of Landed Estates in Ireland*, Dublin, Irish Academic Press, 2000:

T. Dooley, *The Decline of the Big House in Ireland: a study of Irish Landed Families 1860-1960*, Dublin, Wolfhound Press, 2001.

At the outset of the national thematic network, each participant authority was provided with a template content site, comprised of a number of template pages as outlined in the Big House national thematic network sites (see Appendix Four).

All of the template pages were supplied to be downloaded and edited using the freeware¹⁴ software provided, or any other HTML-editing software.

During each of the training sessions provided, all of the procedures required for web publication for the purposes of the project were carried out by the representatives themselves:

- Scanning of images
- Downloading of a web page
- Editing a web page using web-editing software
- Insertion of images
- Saving and uploading of the web page and
- Creation of links between web pages.

In addition, a technical manual, providing a step-by-step guide to the process, was prepared and supplied to each participant at the Cultural Heritage Project Seminar in January 2003.

With this newly acquired expertise and *The Big House and Landed Estate Life* material selected from their collection, each local studies representative was scheduled to begin the task of population of their content site in February 2003. The results are available to view on the website from the *Big Houses Across Ireland* page.



| Left | Malahide Castle:
The Talbot Family outside
the front door, c. 1900

Courtesy of the Irish
Architectural Archive

¹⁴ Frontpage Express – a Microsoft HTML language web editing software freely available and available to download from the 'members only' section of the project website

Local Studies Participants

The following local authorities participated in the project and a listing of individual local studies librarian contributors is provided in Appendix Six.

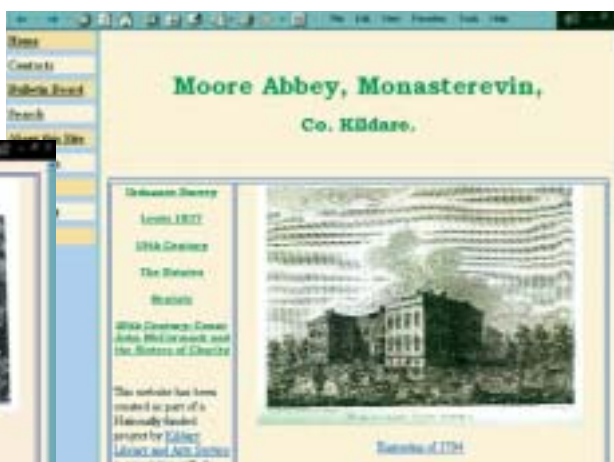
1. Carlow County Library
2. Clare County Library
3. Cork County Library
4. Cork City Library
5. Donegal County Library, Donegal County Museum and Donegal County Archive
6. Dublin City Public Libraries
7. Dún Laoghaire-Rathdown County Library
8. Fingal County Library
9. Galway County Library
10. Kerry County Library
11. Kildare County Library
12. Kilkeny County Library
13. Laois County Library
14. Leitrim County Library
15. Limerick County Library
16. Limerick City Library
17. Longford County Library
18. Louth County Library and Louth County Museum
19. Mayo County Library

20. Meath County Library
21. Monaghan County Library
22. Offaly County Library
23. Roscommon County Library
24. Sligo County Library
25. South Dublin County Library
26. Tipperary Joint Libraries
27. Waterford City Library
28. Westmeath County Library
29. Wexford County Library
30. Wicklow County Library

Samples of local authority content sites from Laois and Kildare are shown below.

The feedback from the local studies librarians, regarding the content sites of other participants and their own experience of involvement in the project itself, has been highly positive and enthusiastic. Some participants experienced some delays in progress arising from factors such as changes in personnel or navigation around existing local authority Internet 'firewall' access restrictions. Support from the project team, complemented with assistance from their own local authority information technology officers, was provided as required.

| Right and below | Samples of Local Studies Content Sites: Laois County Library and Kildare County Library



Appendix Three: Survey

Introduction

An important objective of the Cultural Heritage Project was to build up a profile of digitisation activity in Ireland, as well as identifying the most important special collections, which could be prioritised for digitisation.

In order to achieve this objective, the Cultural Heritage Project carried out a survey of existing and emerging digitisation activity in the Irish Libraries sector. This survey work is ongoing and planned to continue indefinitely.

The survey collects information on three major topics:

- **Local studies collections** held in public libraries
- **Digital images** of documents, drawings, maps, photographs and 3D items held in Irish libraries, museums and archives
- **Digitisation projects** being carried out in the Irish cultural sector.

The attributes which have been collected reflect the most important aspects of the topic being surveyed. Each of these is listed here:

Local Studies Collections Survey

The information collected in the local studies collections survey characterises the collection itself, rather than the details of any items in the collections. The metadata profile used is an extension of that used by the RASCAL¹⁵ project in Northern Ireland.

The following information is collected:

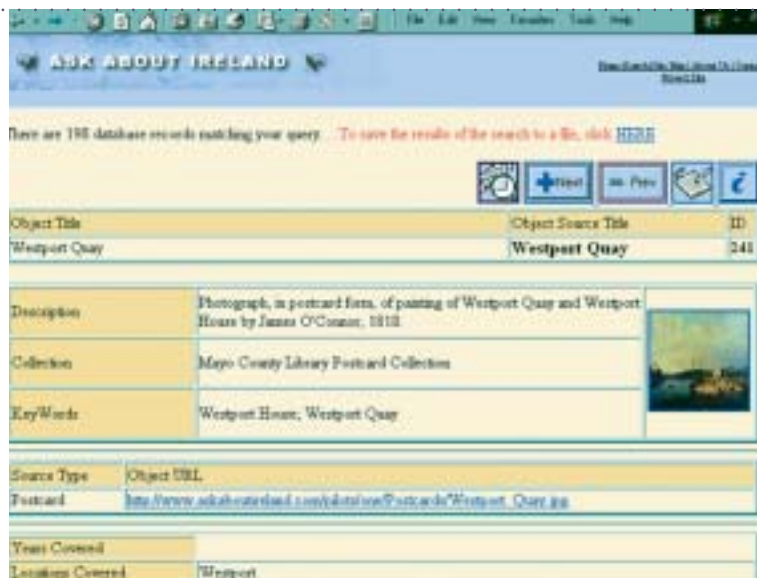
- Collection title
- Collection type
- Collection overview/description
- Collection keywords
- Collection size
- Particular strengths



| Left | Sample Entry from the Collections Database

¹⁵ The RASCAL (Research and Special Collections Available Locally (N.I.)) project is available at: <http://www.rascal.ac.uk>

| Right | Sample Entry from the Objects Database



- Locations covered by the collection
- Years covered by the collection
- Historical individuals covered by the collection
- Historic events covered by the collection
- Significance (local, national, international) of the collection
- Priority of collection for digitisation
- Access types available
- Access policy
- Web address of a copyright statement
- Contact details of an expert on the collection
- Whether the collection is catalogued
- Whether the catalogue is available online
- Whether the collection is still growing
- Institution holding the collection
- Institution address
- Institution contact person
- Institution phone number(s)
- Institution fax number(s)
- Institution email
- URL of institution website.

At the time of creation of this report, almost 300 collections were listed in the database.

Digital Images Survey

The digital images survey collects information about digital representations of cultural material in collections across Ireland. It collects information at the item level, rather than at the collection or institution level.

The data collected is a superset of the Dublin Core Metadata Element Set, the global standard for online resources. The following profile elements are collected.

- Image title
- Image source (name of original object)
- Year the source object was created
- Image source collection
- Image description (what is portrayed in the image)
- Image source type (photo, map, etc.)
- URL of the digital image online
- Image key words
- Image type (e.g. text, photo, 3D)
- Image creator
- Image subject
- Image date created



| Left | Sample entry from the digitisation initiatives database

- Locations relevant to the image
- Years relevant to the image
- Historical individuals relevant to the image
- Historic events relevant to the image
- Who to contact about the image
- Image file format
- Image filename
- Image publisher
- Image contributor
- Image language (e.g. for scanned manuscripts)
- Image copyright statement
- Image transcriber
- Image producer
- Image capture device
- Image capture details (lighting used, etc.)
- Image change history
- Image validation history
- Image encryption
- Image watermark
- Image resolution
- Image compression
- Image colour
- Image colour management
- Image colour greyscale
- Image control targets.

Many of these are relevant only to the preservation of the digital image.

At the time of creation of this report, 200 images were profiled in the database. The collection grows on a daily basis.

Digitisation Projects Survey

The third aspect of the survey identifies digitisation initiatives and projects taking place in Ireland. The collection of a national digitisation profile in this manner supports Ireland's commitments to the Lund Principles and contributes to an overall European survey of digitisation work.

This work, in turn, has an important impact on the formulation of European policy in the areas of electronic content, digital culture and the development of an eContent business sector in Europe.

More locally, the initiatives survey and its associated database will assist bodies planning a digitisation project to identify sources of expertise and experience who can help with the planning and execution of their projects. With digitisation a recurring theme in many sectors, and not confined to the cultural domain, the availability of profiles of work already carried out, and those responsible for its execution, will be of significant value.

The information collected about each digitisation project includes:

- Project name
- Project partners
- Project aims
- Project start and end dates
- Project status (ongoing, complete, etc.)
- Project funding agencies
- URL of project website
- Project results (to date and anticipated)
- Project contact person
- Project address, phone, fax, email and URL of the coordinator's institution
- Project coordinator
- Project key words
- Number of items held and digitised by the project
- Access type
- Access format (e.g. access to project is by email to the project coordinator)
- Project technical specification
- Any additional notes.

| Right | Portrait of Robert Rochfort, 1st Earl of Belvedere, 1708-1774

Courtesy of Westmeath County Library

Survey Databases

The survey was implemented using centralised databases hosted on the project website. Individual projects were enabled to add records to the databases; the project team were largely responsible for the digitisation projects database. The databases are now a major resource for researchers and commercial/creative users who can search and browse the databases online.

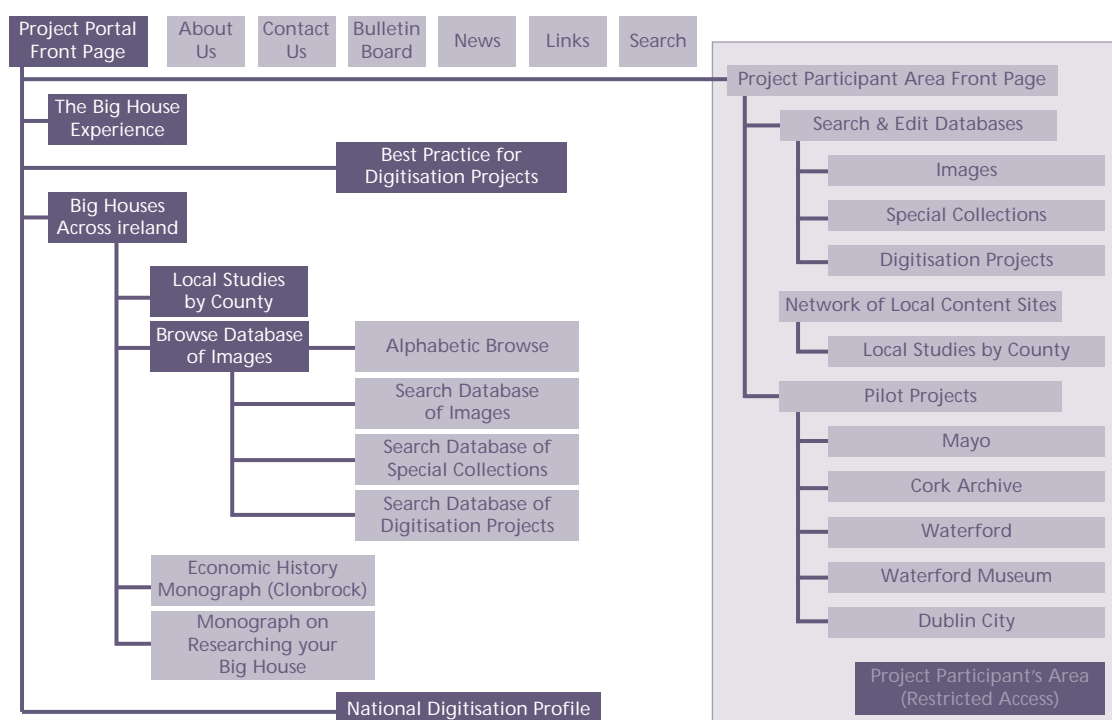


Appendix Four: Project Portal and Websites

A very visible aspect of the Cultural Heritage Project is the project website (at www.askaboutireland.com or www.askaboutireland.ie). The website is in fact a network of interconnected sites, all hosted on the same server. The project website is made up of the following components:

- The Cultural Heritage Project Front Page or Portal
- The area dedicated to the general public (the **user area**). This area focuses on the presentation of the project content to the end-user. It includes the following:
 - *The Big House Experience*, a self-contained digital artefact which brings together much of the new content created by the project in a homogeneous package with many user-friendly features
 - A user interface to the network of local projects initiated and supported by the Cultural Heritage Project around the country (the national thematic network)
 - A friendly interface to the online databases created during the Survey work outlined in the last section
- Best practice guidelines for digitisation projects, with links to relevant pilot sites and best practice documents
- The Irish national profile for digitisation, links to European initiatives in this area as well as a database of Irish digitisation projects
- Links to various pages about the project (Contact, Bulletin Board, News, etc.)
- The area dedicated to the librarians and professionals working on the project (the **project area**). This area focuses on the creation of new online content and includes the following:
 - The pilot projects sites
 - The Big House national thematic network sites, created and populated by local personnel with the support of the Cultural Heritage Project team
 - The Participant Interface to the online databases, including record creation, editing and deletion.

The logical structure of the website is shown here:



Technical Background

The project websites were created by the project technical partner (Pintail Ltd). The sites are hosted by a commercial ISP, who also provides the domain registration and maintenance for the askaboutireland.com domain name. The Cultural Heritage Project websites utilise the following major technologies:

- HTML for static content
- HTTP for access control
- PHP scripting language for the database screens and site searching
- Perl scripting language for the interactive Bulletin Board
- MySQL database for the survey databases.

The sites run on the Apache web server, on a Linux platform.

It may be noted that the project owns both the askaboutireland.com and the askaboutireland.ie domains. The latter domain points directly to the project front page on the .com domain.

The project sites were created using free tools such as FrontPage Express and TextPad. Local studies network projects and pilot projects were of course also free to use commercial tools such as Dreamweaver and Frontpage.

The Cultural Heritage Project Portal

The portal is the first part of the project website which the user encounters, at the www.askaboutireland.com or www.askaboutireland.ie address. It includes a front page, with links to:

- *The Big House Experience* artefact
- *Big Houses Across Ireland* – the front page for local history sites supported by the Cultural Heritage Project
- Best practice guidelines
- The national profile for digitisation and
- The area dedicated to the project participants (the project area)
- As well as links to various pages describing the project.

| Right | The Ask About Ireland home portal page





| Left | The Big Houses Across Ireland web page

User Area

Introduction

The primary focus of the Cultural Heritage Project going forward is on the presentation of the unique and valuable heritage material which has been collected to the general public, the student and the historian.

In order to increase the enjoyment of the end-user and to make the content as accessible as possible, the project created an area of the website dedicated to the general user. Since this is the area which is expected to see the most use in the future, it is this area which is presented when the Cultural Heritage Project website is accessed at www.askaboutireland.com or www.askaboutireland.ie.

The user area consists of the following elements:

- *The Big House Experience* – an online presentation containing much of the material held by the network of local studies sites, collated and presented in a homogeneous and accessible form
- Easy access to the **local projects** across the country, via a clickable map and search interface

- User screens for browsing the online **databases**, with the focus on the images and historical material, rather than on technical and bibliographic data
- **Best practice guidelines** for the creation of new digitisation projects, including links to case studies and pilot projects supported by the Cultural Heritage Project
- A **national profile for digitisation** which states the policies and support mechanisms for cultural digitisation in Ireland. This section also links to European efforts in this area and to a database of digitisation projects in Ireland.

The page which presents the local projects and which allows access to the online databases, is shown here.

The Big House Experience

The Big House Experience is a self-contained digital artefact, aimed at the general user, which allows the viewer to explore *The Big Houses and Landed Estates of Ireland*. It includes interactive timelines, maps, and images. It provides a context into which much of the dispersed material held in the network of local studies websites can be viewed.

The first screen of this artefact is shown below:

| Right | The Big House Experience introduction page



Local Projects

The Cultural Heritage Project supported a network of local studies digitisation and web publication projects across the country, as a national thematic network. This support included the provision of site templates, training and server hosting, as well as ongoing support for the local teams working on the project. Many of the highlights of the resultant content is included in *The Big House Experience*.

Access to the local projects is provided to the end-user with easy-to-use interface. This allows the user to focus in on his native, or any other, county, as well as to search for keywords across the whole country.

This screen is shown previously (see page 80). The map is fully clickable, each click opening a new window with the local site of the clicked county.

In addition to the local sites, this screen also provides access to an **historical monograph** focusing on the economic history of one Big House (Clonbrock House, Co. Galway) and **guidelines** on how to research any big house, aimed at the local historian.

General User Interface to the Digital Images Database

As outlined in the previous (Survey) section of this report, the Cultural Heritage Project established an online database of digital material. This database, and the population of digital items, grew significantly during the lifetime of the project and continues to do so.

In order to make this database as user-friendly as possible, the project team provided a range of browsing tools. These included:

- Free text search of the database
- Browsing the database by title, description, historical individuals, key words, etc.
- Accessing full alphabetical lists of those fields from the database and
- Viewing only images and historical data, avoiding technical metadata unless specifically requested.

| Right and below | Database search interface and a sample database record



Best Practice Guidelines for the Creation of New Digitisation Projects

This page contains links to the best practice guidelines for the creation of new digitisation projects, which have been established during the course of the project by the pilot projects and project team. Guidelines are provided both as an overall version for digitisation in general and each project's report on the specific media types is available for viewing or downloading.

The media types covered are as follows:

- Archive material
- Newspapers
- Three-Dimensional objects
- Audio & video and
- Printed text.

Links are also provided to the pilot project sites as case studies for digitisation of the different media.



| Left | The Best Practice Guidelines for Digitisation web page

National Profile for Digitisation

As previously outlined, the establishment of a national digitisation profile was an important objective of the project. The national digitisation profile page comprises a link to an **overview** of the state of the art in cultural digitisation

publication of online content, metadata and original material. In order to facilitate this, sections of the website were provided which allowed easy access to the pilot projects, the local studies projects from around the country, the online databases (including updating and editing the online databases), a project bulletin board, etc.

| Right | The Project Area web page



in Ireland, downloadable in pdf file format, augmented by a link to the **digitisation initiatives database** which provides information on individual Irish projects. In addition, access to the Minerva¹⁶ eEurope website of European digitisation initiatives is also provided via a link from this page.

Project Area

Website Area Dedicated to the Participants

Libraries, museums and archives participating in the project used the website for the creation and

This part of the website is focused on the creation of new content, primarily by the digitisation of content by the project participants.

The front page of this **Project Area** is shown above.

A number of project-level pages can be accessed from the front page, using the navigation buttons on the left. These include information **About** the project, the latest project **News**, an interactive **Bulletin Board** for project participants, a **Contacts** page and a set of relevant **Links**.

A **Search** page with instructions for use is also provided. These pages remain accessible from throughout the project area, so that the participants can easily navigate the site.

¹⁶ Minerva is a network of EU Member States' Ministries to discuss, correlate and harmonise activities carried out in digitisation of cultural and scientific content. The website is available at: <http://www.minervaeurope.org> or by link from the Ask About Ireland website



| Left | Project Area: The pilot projects web page



| Left | Mayo County Library pilot project home page

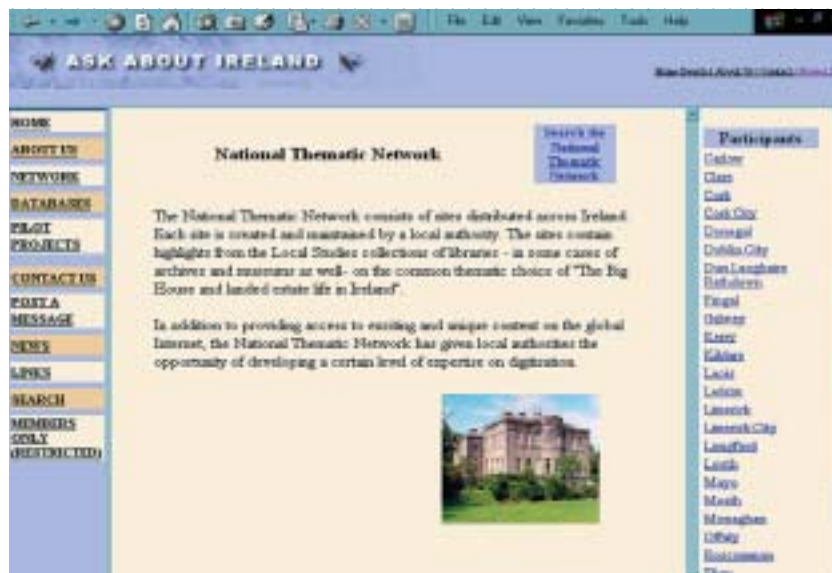
There are **three major links** from the front page of the *Project Area*:

- The pilot projects' sites
- The Big House national thematic network sites
- The Online Databases.

The Pilot Projects' Sites

The Cultural Heritage Project included five pilot projects, which carried out research and development into various aspects of digitisation and into the digitisation of different types of media. These included newspaper digitisation including OCR and automated indexing, digitisation of audio and video, 3D digitisation, image, manuscript and printed text digitisation. After a competitive proposal process, three libraries, one archive and one museum were selected.

| Right | Project Area: national thematic network page



Each pilot project carried out the full digitisation life-cycle, from material selection to digitisation, preservation and online publication. The results of the online publication section were hosted on five sites within the Cultural Heritage Project website. In line with the rest of the Cultural Heritage Project, the preferred theme for the pilot projects was the 'Big House' or aspects of the Landed Estates in Ireland.

Pilot Projects Site Templates

Each pilot project was provided, by the Cultural Heritage Project team, with a prepared template for the creation of the website which would contain the results of their digitisation activities. This template included a front page, content pages, pilot project-level pages such as **Contacts**, **News**, **Search** and **About**, as well as pre-configured search engine and file upload/download tools.

The pilot projects were free to use as much or as little of the template functionality as they wished.

As each of the pilot projects created digital content, this was profiled in the digital objects database, as well as being showcased on the Cultural Heritage Project server. The material created includes audio, video, images and automatically-created (OCR) text.

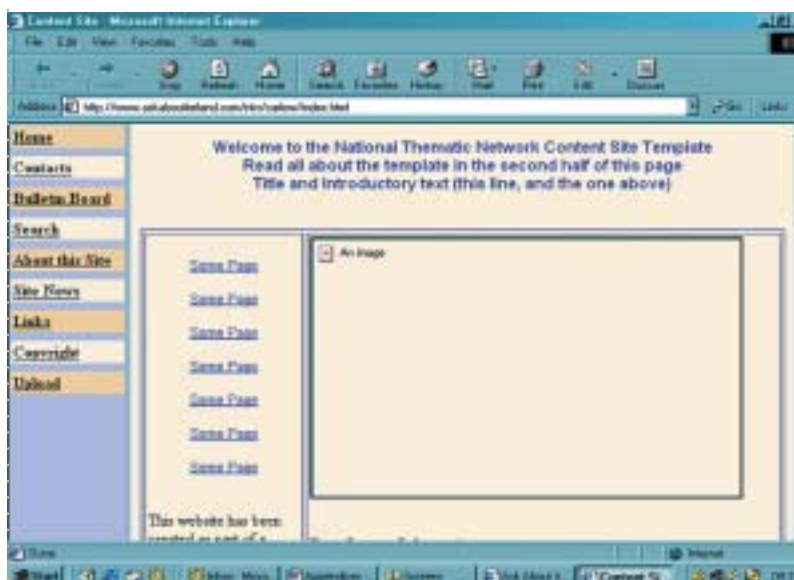
The pilot project sites reflect the expertise built up by the pilot project teams during the course of the Cultural Heritage Project. They also include guidance, examples and best practice information for other digitisation projects in the future. The pilot projects are well positioned to provide practical guidance and assistance to other libraries, archives and museums involved in a national digitisation programme.

The Big House National Thematic Network Sites

Introduction

In order to make the Cultural Heritage Project as inclusive an initiative as possible, and to initiate some digitisation expertise and experience throughout the public libraries sector, a network of linked websites was created, one for each library authority. To give some cohesion to the material presented on the networked websites, a common theme was agreed with the County and City Librarians, of *The Big House and Landed Estate Life in Ireland*.

These sites are presented to the General User as 'Local Projects'.



| Left | Project Area: The national thematic network (local studies) content site template

Local Studies Site Templates

The local studies websites network consists of sites from all over the country, linked to a Network-Level front page.

The members of the Big House network (library authorities) were provided with site templates which they could populate with their own digitised content. The participants were welcome to use as much or as little of the template as they wished. The template resembled the pilot projects template, with participant-level pages for **News**, **Contacts**, a **Copyright** statement, **Links**; etc. Pre-Configured participant-level **search** engines and **upload** tools were also provided.

Training was provided to each of the Big House network participants in how to manage their websites, edit and upload files, etc. The comprehensive Technical Manual was also provided to each Big House participant.

Participant Interface to the Online Databases

The online databases were a central element in the content creation process of the Cultural Heritage Project. They provide a central point for the accumulation of information and content about special collections, digital objects and digitisation projects in Ireland.

The online databases contain screens for editing, populating, searching and browsing the databases. The screens accessed from the project area (i.e. those aimed at the project participants) allow password-protected editing and deleting of records, while those accessed from the user area do not display this functionality.

The online database screens accessed from the project area include a good deal of metadata and information of most interest to library and cultural professionals. These include, for example, a full Dublin Core metadata element set for all digital objects.

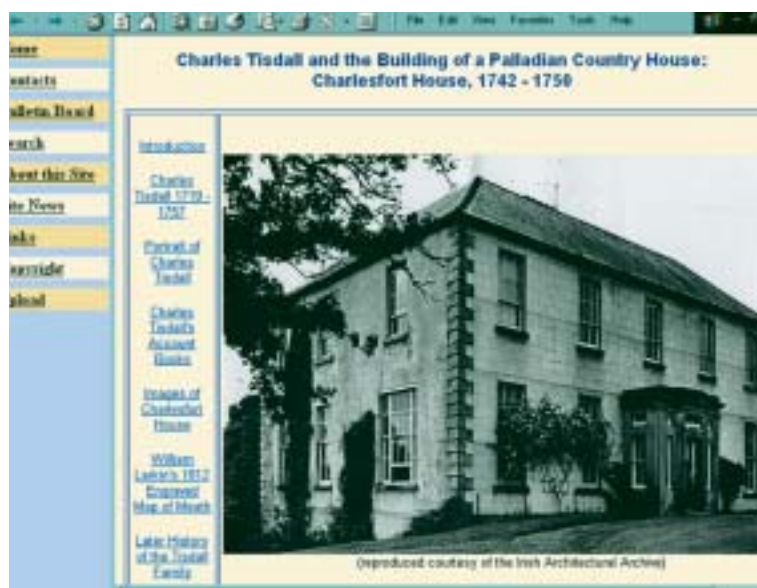
By contrast, the database screens accessed from the user area of the site focus on the images themselves, the descriptions of the images and the historical events which surround them.

Details of the online databases and examples of the database screens are shown in the previous appendix (**Survey**) of this report.

Conclusion

The Cultural Heritage Project website is the 'shop window' for the project. Its creation and maintenance is an important training exercise for the cultural sector in Ireland, with many libraries gaining their first experience of digitisation and of web design and implementation working on the site.

| Right | Sample of Local Studies
Content Site: Meath County Library



Appendix Five: Reference Material/Bibliography

Reference Library

As the Cultural Heritage Project represented a ground-breaking initiative in digitisation for the library sector in Ireland, the creation of a centralised digitisation reference source was indicated. The reference library was designed to offer background information support for project participants, to enable the identification of key concepts, developments and trends and to offer the provision of a basis for comparative evaluation with existing projects.

The material for the reference library has been collated from varied sources including the Cambridge Science Abstracts: Library and Information Science Abstracts (LISA), the Research & Information Department of An Chomhairle Leabharlanna, the Humanities Advanced Technology and Information Institute (HATII) at Glasgow University, Arts and Humanities Data Service of Great Britain, the European Bureau of Library, Information and Documentation Associations (EBLIDA) and the Joint Information Systems Committee of the United Kingdom (JISC).

Data compilation commenced in September 2002 and has been ongoing throughout the duration of the project. A specific reference management software application was selected for the purpose of creating the reference bibliography. Data entries have been classified primarily according to the work formats: book, article, website, conference paper, report, trade catalogue and monograph. Journal articles and websites comprise the majority of the entries totalling over sixty percent of all reference entries.

Further categorisation by keyword is possible, of which there are ninety at present, ranging from general categories such as country of origin, medium of digitisation (e.g. printed text, image, audio, etc.) and relevance to organisations (e.g. library/archive/museum), to specific categories such as optical character recognition (OCR), scanning, indexing, etc.

To date, the database contains over 180 individual reference entries, of which over 90 percent have been sourced to a specific location. Almost 60 percent of entries can be located and/or downloaded from the Internet.

The database catalogue is available to be downloaded from the project website at www.askaboutireland.ie or www.askaboutireland.com.

Appendix Six: List of Participants

Pilot Project Teams

- **Cork Archives Institute and Clonakilty Museum**

Brian McGee, Project Manager

Michael Higgins, Project Assistant

Michael O'Connell, Project Assistant

- **Dublin City Public Libraries**

Deirdre Ellis-King, Project Manager

Bernadette Cogan, Project Coordinator

Alastair Smeaton, Project Assistant

Helen O'Donnell, Project Assistant

Séamus Meaney, Project Assistant

- **Mayo County Library**

Austin Vaughan, Project Manager

Richard Hickey, Project Coordinator

Ivor Hamrock, Project Assistant

Richard Love, Project Assistant

Eleanor O'Toole, Project Assistant

Deirdre Lavelle, Project Assistant

- **Waterford City Library**

Jane Cantwell, Project Manager

Emer Fitzgerald, Project Coordinator

Suzanne Buggy, Project Assistant

Katherine Peak, Project Assistant

Linda Dooley, Project Assistant

- **Waterford Museum of Treasures**

Eamonn McEneaney, Project Manager

Rosemary Ryan, Project Officer

National Thematic Network Regional Coordinators

Border/North-West Region: Willie O'Dowd

East/Central Region: Kieran Swords

North/East Region: Frances Tallon

South-West/Mid-West Region: Michael Maguire

South/South-East Region: Celestine Rafferty

National Thematic Network Representatives

- Carlow County Library
Carmel Flahavan
- Clare County Library
Peter Beirne
- Cork City Library
Eamonn Kirwan
- Cork County Library
Tim Cadogan
- Donegal County Library, Museum and Archive
Berni Campbell, Caroline Carr, Niamh Brennan
- Dublin City Public Libraries
Alastair Smeaton, Helen O'Donnell
- Dún Laoghaire-Rathdown County Library
Nigel Curtin, Pat Walsh
- Fingal County Library
Jeremy Black
- Galway County Library
John Fitzgibbon
- Kerry County Library
Michael Costello,
Tommy O'Connor, Seán Cahill
- Kildare County Library
Mario Corrigan
- Kilkenny County Library
Declan Maccauley
- Laois County Library
Patricia Lynch
- Leitrim County Library
Seán Ó Súilleabháin
- Limerick City Library
Michael Maguire
- Limerick County Library
Damien Dullaghan
- Longford County Library
Carmel Murtagh
- Louth County Library
Isabell Murphy, Dermot Foley
- Louth County Museum
Brian Walsh
- Mayo County Library
Ivor Hamrock
- Meath County Library
Frances Tallon
- Monaghan County Library
Catherine Elliott
- Offaly County Library
Mary Butler
- Roscommon County Library
Willie O'Dowd
- Sligo County Library
Ultan McNasser
- South Dublin County Library
Kieran Swords
- Tipperary Joint Libraries
Mary Guinan-Darmody
- Waterford City Library
Emer Fitzgerald
- Westmeath County Library
Mary Stuart
- Wexford County Library
Celestine Rafferty
- Wicklow County Library
Fiona Scannell

Appendix Seven: National Digitisation Profile

The eEurope 2002 Action Plan called on Member States and the Commission to create a co-ordination mechanism for digitisation policies and programmes across the union. The Lund Principles, April 2001 established a number of actions to carry this objective forward. One of these actions is the creation of a national policy profile in each member state to exchange information and good practice in relation to digitisation.

The Cultural Heritage Project, in cooperation with the Department Of Arts, Sport and Tourism, has compiled the national profile for Ireland on www.askaboutireland.ie or www.askaboutireland.com.

The national profile is linked to the database of all digitisation and related initiatives in which cultural bodies are involved. The project team identified digitisation policies, programmes and projects in government and cultural heritage institutions and provided access for participants to generate and update the database records themselves. Like the other databases, this can be edited and viewed in real-time, thus addressing the problem of a rapidly changing landscape in this active area. This will also provide profiles of and links to, other relevant policies and programmes.

An example of a digitisation initiative which has proved of major interest and value to both participants in the project and to the general public is the RTÉ Radio Archive project.

The Cultural Heritage Project is the principal initiative in the current national policy profile for Ireland. Some of the other foremost policy and implementation issues outlined in the profile are detailed below. The complete national digitisation profile is available to view or download from the project website at www.askaboutireland.ie or www.askaboutireland.com.

Policy Scenario for Digitisation

There are three government departments which relate to the cultural heritage sector in Ireland:

- The Department of the Environment, Heritage and Local Government has responsibility for policy and programmes in relation to cultural heritage services, provided through the local government system. The Department has also overall responsibility for the natural and built heritage. Local and municipal libraries, archives, museums and other cultural bodies are within the remit of the local authorities; this reflects their local and community focus. An Chomhairle Leabharlanna/The Library Council advises the Department and local authorities in relation to the public library service.
- The Department of Arts, Sport and Tourism has responsibility for national cultural institutions such as the National Museum of Ireland and the National Library of Ireland.
- The Department of Education and Science has responsibility for policy in relation to library services at primary and secondary education levels and through the Higher Education Authority (HEA) which advises in relation to third level education institutions.

These three government departments are represented on the *Branching Out* Steering Committee, an initiative of the Department of the Environment, Heritage and Local Government to implement the recommendations of the 1999 *Branching Out* report (available from www.environ.ie). This report set out a range of recommendations for cultural heritage policy, including substantial coverage of digitisation aspects.

In addition to the policies on digitisation of cultural heritage recommended in the *Branching Out* report, the policies which govern National Cultural Institutions are also addressed by the National Cultural Institutions Act, 1997 and the Heritage Fund Act, 2001. The Council of National Cultural Institutions, established by the Heritage Fund Act, 2001 advises the Minister for Arts, Sports and Tourism.

In the commercial eContent area, Forfás, the national policy and advisory board for enterprise, trade, science, technology and innovation in Ireland, has published a report *A Strategy for the Digital Content Industry in Ireland*, 2002. This report includes some coverage in developing digital content in relation to cultural heritage.

Relationships and coordination with other national initiatives in connection with eEurope, eGovernment and eLearning

The Cultural Heritage Project is funded by the Information Society Fund through the Irish Government Department of the Environment, Heritage and Local Government. The project addresses several of the points made in the third report of the Information Society Commission, as well as the new report *Building a Knowledge Society* (available from the Information Society Commission website at www.isc.ie).

Members of the Cultural Heritage Panel are working closely with and within the relevant government departments and also with the working groups of the Information Society Commission in the areas of eLearning (especially adult education and life-long learning), cultural and community services.

European and International Cooperation

The **Euro-Focus on The Cultural Heritage** is the Irish National Node with responsibility for the dissemination of information on the European Digital Heritage and Cultural Content of the Information Society Technologies (IST) programme.

The Euro-Focus on The Cultural Heritage represents libraries, museums, galleries and archives in Ireland as well as the relevant Government Departments. The Euro-Focus is a core member of the Cultural Heritage Applications Network (CULTIVATE) initiative, which links representatives of the cultural communities across Europe and Israel.

In addition to the Euro-Focus itself, its constituent bodies are themselves active in sectorally relevant initiatives, activities, projects and networks in Europe and beyond. Ongoing activity such as the Cultural Heritage Project outlined above has also led to spontaneous contact being made with external cultural bodies, such as the National Library of Australia.

European Added Value and Content Framework

Research Activities on Digitisation

The **Humanities Institute of Ireland (HII)** was established in 2002 under the Higher Education Authority's €300 million Programme for Research in Third-Level Institutions 2001-2002 (cycle 3). The HII aims to provide a new environment for research in the Humanities. A series of interdisciplinary research projects is being developed under the theme of Identity, *Memory and Meaning in the Twenty-First Century*. The series will be supported by the development of the innovative Irish Virtual Research Library and Archive.

Research in the digitisation of physical landscapes, both outdoor and indoor, has been a strong focus in the **Digital Media Centre** of the Dublin Institute of Technology for some years. Three-Dimensional objects and new techniques for efficient 3D modeling of the outdoors have been particularly emphasized. The ACTIVATE project includes an example of this type of digitisation, i.e. the digitisation of a sensitive historical environment (physical cultural heritage).



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