“The cultural sector is going through an enormous transition. We have to make sure that it reaps benefits from technological advances. This means... expanding the traditional role of cultural institutions to the web”

Androulla Vassiliou, European Commissioner for Education, Culture, Multilingualism and Youth.

Introduction

Europeana gives access to the digitised holdings of over 2,200 museums, libraries, archives and audiovisual collections from 33 European countries. Over 20 million digitised books, paintings, archival records, videos, museum objects, sound files, manuscripts, newspapers and photographs are available online. Five years ago, at its launch, Europeana gave access to only 2 million items, so the rapid rise demonstrates how quickly the holdings of our different memory institutions are coming together online.

This integration is reflected elsewhere online. The Wikimedia Foundation, who run Wikipedia, has taken to describing and working with the cultural heritage sector under the collective name ‘GLAMs’ – galleries, libraries, archives and museums. In English it’s an engaging name, simple and memorable, echoing that 1970s pop starburst, Glam Rock, that gave us David Bowie and Roxy Music, that most glamorous of musical movements. Any association
with glamour can only be good for cultural heritage, particularly if it reflects in the perception of the user.

But do we want to be collectivised like this, packed into the same category? Or do we believe that each of our domains – museums, libraries, archives, galleries, audiovisual collections – has its own professional practice, its special types of material to curate, its own audiences?

From our perspective, it is true that we are librarians, or curators, or archivists – and we recognise the difference, and we know that many of those differences are necessary and will persist. But in a sense, those on the outside don’t see it that way. And maybe what the word GLAMs demonstrates is the viewpoint of the audience, the end-user. From the outside, all GLAMS appear to have a common purpose: collecting a record of knowledge and creativity, holding it in trust for the citizens, and giving them access to such collections in various ways. And especially online, in the perception of the users, the similarities between galleries, libraries, archives and museums outweigh their differences.

**The Universal Museum**

And indeed, at the start of the story of GLAMs, that was exactly the situation. In the eighteenth century, the Wunderkammer or Cabinet of Curiosities was an important symbol of the Age of Enlightenment. In it, the man of means and broad education could show his rare books and manuscripts alongside fossils, minerals and archaeological finds; specimens from the natural world and anthropological discoveries brought back by explorers and traders could be displayed alongside classical antiquities and the religious relics of medieval Europe. The step from the gentleman’s Cabinet of Curiosities to the ‘universal museum’ was a short one in Enlightenment Europe, and in many countries we see the establishment of great national collections built upon the accumulations of individual aristocrats and scholars.

In Britain, the physician and naturalist Sir Hans Sloane bequeathed his collection of 71,000 objects to the nation, and the British Museum was founded to house them in 1753. In 1757 King George II contributed the Old Royal Library and with it the right to a copy of every book published in the country. So from the start, the integration of all knowledge was at the core of the universal museum. The museum had a number of purposes, but primary among them was providing opportunities for people to explore, classify and understand the world around them.

Over the following century, the classification of knowledge become more specialised, disciplines developed their own professional practices, and the materials for study accumulated rapidly. All this was reflected in Europe’s museums. In London in 1881, all the natural history collections left the British Museum to be housed in their own purpose-built showcase in South Kensington. New national museums were established to house the nation’s collections of paintings, applied arts, science and industry.

A century later, in 1973, the British Library was spun off from the British Museum, and only moved into its own home at St Pancras in 1997. However, even as this process of specialisation and separation was taking place, a complicated hybridisation was acting the other way.
Today's hybrid collections

Shortly after the British Library was formally separated from the British Museum, the collection of the British Government's former India Office was added to the Library. This comprised the paintings, archives and museum objects as well as extensive printed collections dating back to the early years of the East India Company, the private trading monopoly through which Britain came to rule India. In 1983 the National Sound Archive joined the British Library, bringing along a million sound and video recordings.

So the British Library's collections are hybrid, and by that I mean that they cover many items that could be said to belong equally to libraries, archives, galleries, museums and audiovisual collections. And I suspect that this is true for many of us.

So from the public's perception, there is some confusion about what they can expect to find where. And finding out what was held where used to be a big part of the postgraduate research process. If you wanted to bring together the unpublished letters, sketchbooks, diaries and papers of a nationally-famous artist, would you look in a library, an archive, or a gallery? In a national collection or a regional collection? What if the artist travelled, or wrote to friends in foreign lands? So we all know how complicated the situation can be.

Integration online

But on the web, the confusion no longer exists. Once the materials are digitised, and particularly once they have been made available through Europeana – where they are no longer matters much to the searcher. Users no longer have to go to different places to see the different classes of materials. They can bring them together in the same space.

This is crucially important for people who have grown up with high expectations of what technology can deliver to them. They want to be able to read text, see pictures, watch films and hear sounds all in the same space. Social network sites can offer that level of content integration; mobile devices can provide that simplicity of access to all formats. The software and the hardware can give users what they want, and it's vital that our organisations respond to these evolving expectations, and use the technology to remain relevant to new generations of users.

Last year Europeana commissioned a study of what devices were being used to access our portal, using logfile analysis. The resulting report, called 'Culture on the Go', documents how enthusiastically mobile technology has been adopted across Europe, and the rapid rise in its use to explore Europeana. The Report makes the point that a high resolution portable screen, like an iPad, is a perfect place to explore cultural heritage – to read a text, scroll through images, watch movies and listen to recordings. And this can be done at any time, and almost anywhere. Consequently, use of Europeana by mobile devices is rising four times faster than the increase in use by desktop computers and laptops.

Europeana

Now to examine Europeana in more detail. The portal currently gives access to 20 million digitised items from 2,200 organisations across 33 countries. The different types of materials break down as follows:
It’s important to look at the process by which this unprecedented integration of European culture has been achieved.

Europeana is run by less than 40 people in an office in the Royal Library of the Netherlands in The Hague. The staff couldn’t possibly manage to work with every one of the organisations that provides Europeana with data, so we use an aggregation model.

Step one: the digitisation of their material by individual institutions.
Step two: these individual GLAMs then send their data to a single agency – an aggregator
Step three: the aggregator harmonises the metadata and then channels it into Europeana’s ingestion process.

The aggregation model means that a single agency will work with many different organisations. Aggregators work in a number of ways: they may be national, domain or thematic.

### National aggregators

One of the best examples of a national aggregator is Hispana, run by Spain’s Ministry of Culture. Hispana has to date provided Europeana with 1.7 million items from 45 Spanish databases, representing 29 museums, 43 digital libraries and 2 archives. Across Europe, 27 countries now have national aggregation initiatives; most are funded centrally by their culture ministry. The particular value of a national aggregator lies in understanding the background against which colleagues operate in the same country, knowing about funding, digitisation priorities, national standards – and also of course sharing a common language.

### Domain aggregators

The other main providers to Europeana are the domain aggregators. Examples include:
- European Film Gateway, which aggregates film-related content from film archives in 16 countries,
- EU Screen, bringing together TV material from some 20 archives
- The European Library, aggregating the content of all Europe’s national libraries
- Archives Portal Europe, which covers national and regional archives in 16 countries.

With the exception of the European Library, domain aggregators are EU-funded projects. Their starting point is to establish the framework for digitisation within the specific domain, set out formats and standards and examine issues around copyright before beginning the digitisation process and implementing a data supply infrastructure. Domain aggregators have the particular advantage of familiarity with the special issues common to specific types of collection, such as broadcast material.
Thematic aggregators

The last category is the thematic aggregator. These are partnerships that come together around particular topics. Judaica Europeana is a good example, digitising great collections of material relating to the Jewish contribution to European culture. Ten partners included the Jewish Archives, Budapest, the Sephardi Museum in Toledo and the Hebrew collections of the British Library. Another thematic project is Europeana Fashion, a partnership of 23 organisations holding relevant collections. Few of the partners are focused solely on fashion: many, like the Victoria and Albert Museum in London, are great applied art and design museums with significant clothing and textile collections, with related collections of printed and graphic materials. An aggregator approaching a single topic has the great advantage of in-depth subject knowledge, a recognition of where the great collections are and what needs to be digitised. They are able to tell the story, in some depth, of the broad sweep of a subject across Europe in terms of both time and space.

Metadata standards

But at the core of this universe of aggregation there have to be two things. On the one hand, a shared vision; on the other, a shared standard. The shared vision requires a willingness to work together to create a process and an infrastructure that gets the job done. The shared standard makes possible the integration and harmonisation of the metadata, the delivery to Europeana’s ingestion process from which it emerges ready for display on the website.

Early in Europeana’s life, we created a metadata standard called the Europeana Semantic Elements [ESE], which is based on Dublin Core, and can be used to describe, in basic terms, all the different types of material that are shown in Europeana. The Semantic Elements set out to achieve basic interoperability, and provided a lowest common denominator description. This means that when the metadata is prepared for ingestion into Europeana, sometimes information that is contained in a richer and more complex standard cannot be fully accommodated in the flat structure of ESE. So important information can be lost in the harmonisation process, and users of the site may be given little contextual information or interpretation when they examine an object in Europeana.

From the first, we recognised the limitations of this approach, but it was better to demonstrate that interoperability was possible – that different types of objects could be brought together, searched and displayed consistently. It was also important to establish the idea of partnership between museums, libraries and archives – to get Europe’s curators, archivists and librarians talking to each other, so that they could recognise shared aims, shared problems, and also learn from different approaches and expertise developed in particular fields. An example that will be familiar in the context of a library conference is that librarians had long experience of establishing international cataloguing standards and had been sharing bibliographic metadata internationally for many years.

The Europeana Data Model

In order to provide richer metadata, the next step was to develop a much more sophisticated model. The Europeana Data Model [EDM] was the result of extensive collaboration with the
experts and keepers of the standards from every domain – museums, libraries, archives and the audiovisual sector. Each domain tested the model to make sure it fulfilled their cataloguing needs and was capable of describing the materials they were digitising and making available. Most of the standards in the individual domains – like MARC 21 in the library world, for example – were created in a pre-internet age. The Europeana Data Model, on the other hand, was created to take advantage of the opportunities offered in the online world, primarily that similar data and objects can be linked, and new relationships become apparent. In other words, to take advantage of the potential of the semantic web and Linked Data.

The European Data Model is now being implemented, and already some projects have been sending their data to Europeana in EDM format, for example Musical Instrument Museums Online and the performing arts project, ECLAP. As yet, this richer data can’t be seen in Europeana, but later this autumn, we will be launching an EDM interface. When users examine EDM records they will see some improvement in the range of information available to them. But it’s in the related material and its degree of relevance to their search that the greatest potential benefit will lie for users. For example a search for Julius Caesar will enable the searcher to refine much more precisely what they want to see: the books written by or about him, the sculpted representations of him, the coinage representing him, the play about him by William Shakespeare, or the television documentary about his imperial conquests.

The next step is to build EDM into the working practices of the GLAM community. To that end we are currently running a project called Europeana Inside that is collaborating with developers and suppliers of popular Collection Management and Digital Asset Management software. The aim is to include EDM in their output options, so that once digitised items have been catalogued on the system, their metadata can be output in EDM ready for ingestion into Europeana.

Europeana’s Governance

To help deliver the digital transformation of the cultural heritage sector, one of Europeana’s core strategic roles is to facilitate information exchange and knowledge transfer throughout the memory institutions of every European member state. To help make sure that every different domain is in agreement with Europeana’s policies, they are endorsed by the Europeana Foundation Board, which comprises presidents and chief representatives of Europe’s cultural heritage associations, including:

- Association Cinémathèques Européennes (ACE)
- Conference of European National Librarians (CENL)
- Consortium of European Research Libraries (CERL)
- European Museum Academy (EMA)
- European Museum Forum (EMF)
- European Regional Branch of the International Council on Archives (EURBICA)
- International Federation of Television Archives (FIAT)
- International Council of Museums Europe (ICOM)
- International Association of Sound and Audiovisual Archives (IASA)
- Ligue des Bibliothèques Européennes de Recherche (LIBER)
- Multilingual Inventory of Cultural Heritage in Europe (MICHAEL)
- Network of European Museum Organisations (NEMO)
- Open Access Publishing in European Networks (OAPEN)
Bringing these players together at the strategic level has ensured that there is consensus right across the cultural heritage sector and broad agreement on Europeana’s approach.

At the more practical day-to-day level, Europeana is successful because of the close involvement of its network of partners, who in many cases work very closely with staff in the Europeana office. This informal cooperative activity is represented by a formal structure, the Europeana Network, a group of nearly 500 organisations who contribute data, technology and expertise to Europeana. The network elects six officers who sit on the Europeana Foundation Board, and represent their particular sector’s interests.

The current Network officers who also sit on Europeana’s Board are:

– Gunnar Urtegaard, Kulturrad, Norway
– Anne Bergman-Tahon, Federation of European Publishers
– Louise Edwards, The European Library
– Nick Poole, Collections Trust, UK
– Bengt Wittgren, Murberget Länsmuseet Västernorrland, Sweden
– Johan Oomen, Netherlands Institute for Sound and Vision

This governance model ensures there is constant dialogue and consensus-building, and that collaboration is consolidated and built upon. Europeana is the result of five years of cooperation across the cultural heritage sector, and the stronger the GLAM’s sense of shared vision and common purpose is, the more powerful the momentum towards digital innovation and delivery. The better the digital interface with our users is, the greater our relevance in their fast-changing world, and the higher our value to them.