Introduction

The major digitisation activity in Greece took place within the period 2006-2008, when more than 200 cultural institutions digitised and annotated their content, taking advantage of structural funds of about 100 M€uro. The national Information Society Programme (ISP) was controlling this investment through the large number of projects implemented - mainly - under the supervision of the Hellenic Ministry of Culture and Tourism (HMCT), which is responsible for the area of museums, (ancient) monuments, contemporary art and audiovisual archives. In parallel, some large digitisation projects in the field of libraries and state archives were implemented for the Hellenic Ministry of Education, while many smaller projects - dealing with digitisation, annotation and portal generation - were implemented by different cultural institutions.

Both ISP and HMC conducted surveys on the project results. These surveys concluded in the beginning of 2009 and constitute the most recent national overviews about the outcome of this large digitisation activity of more than 200 cultural institutions and their achievements. Two studies have been performed for the General Secretariat for Research and Technology of the Ministry of Development which investigate the economic results of cultural content digitisation and the role of the private sector in it.

Some of the most well known monuments of Greece throughout the centuries have been included in the related activities. An indicative list of sites follows including the Acropolis Museum, The Parthenon, Myrtis, the Byzantine Museum, the Music Library of Greece, the National Book Centre, the Eleftherios Venizelos Foundation, the National Library of Greece, the General State Archives of Greece, the Greek National Television, the National Audiovisual Archive, the National Archive of Monuments of the HCMT.

State Cultural Policy

The state bodies responsible for coordinating the related activities are the Hellenic Ministry of Culture and Tourism (HMCT) and the Hellenic Ministry of Education, Lifelong Learning and Religious Affairs (HMELLR). The Hellenic Ministry of Culture and Tourism is responsible for digitisation and cultural development related to the fields of museums, ancient monuments, contemporary arts, theatre, cinematography and audiovisual archives. 56 branches of the Ministry (Efories of Ancient Monuments) have been digitising and annotating their content over the last few years. The next - current - task is to make this digital content accessible to the general public and also to Europeana, which is under development. An estimate of 20,000 accessible objects through the HMCT Web site is the target of this year.

In parallel, HMCT is aggregating content descriptions - metadata from other public and private museums and archives, so as to make their digital content (even more) accessible to Greek and European citizens. HMCT also preserves and extends the national MICHAEL portal, which includes collections from 27 Greek cultural organisations, including large public and private museums and archives. Specific attention in the current and following years will be paid through the HMCT Directorate of Monuments and Archives to extending the digitisation and annotation of objects to include large 3-D ancient monuments and make them also accessible to Europeana. In parallel, the Hellenic Audiovisual Archive will provide access to its significant content covering news and films (700 hours) from the recent - last century history of Greece.
The Hellenic Ministry of Education, Lifelong Learning and Religious Affairs is responsible for the digitisation of content from libraries and the state archives and for creation of educational content. In the former period (2006-2008) HMELLR managed to digitise 18,000,000 pages from its network of public libraries and more than 5,000,000 pages from its state archives. The next - current - task is to make this digital content accessible to the general public, and also to Europeana (under development).

The next digitisation activities and projects are expected to take place within the "Digital Convergence" Information Society Operational Programme 2008 - 2013 and the newly developed and initiated National Strategic Reference Framework (ESPA 2007-2013). Referring to content, all types of content will be digitised, including books, photographs and 2-D objects, paintings, videos, films, sound documents, music, 3-D (archaeological) objects and monuments.

In particular, it is expected that about 100 MEuro of funding will be devoted by the Digital Convergence Programme - through HMCT - for further extending digitisation, annotation and cultural services, while a similar amount (90 MEuro) will be devoted by the HMELLR for extending the digitised content and creating new digital content mainly focusing on educational usage. The resulting target, as a whole, is to double the content that has been successfully digitised in the previous Operational Period, while, at the same time, managing to preserve and make all already digitised content accessible to the general public.

Given the size of the Greek and the Greek-speaking market, it has not been evident so far that a large scale digitisation facility could be feasible and meet the prerequisites for sustainability. Therefore, private companies have been given the projects over the last five years and they delivered accordingly, mainly on digitisation projects related to the material each and every entity possessed. We have had to wait for the ESPA (the National Strategic Reference Frame / 4th period of European structural funds) to initiate an ambitious plan undertaken by the Hellenic National Audiovisual Archive - to build a national Centre for Digitisation, following the mass digitisation approach and planning all relevant before- and-after activities to establish a flow that makes the investment worthwhile at all levels.

The Current Phase

HMCT is developing plans to play the role of national aggregator for content related to museums, monuments, arts, music, films, and audiovisual archives. In this context HMCT also participates in the ATHENA (museum sector aggregator) project, through which it will contribute its own content as well as the content of various other cultural institutions, for the Rhine and Danube milestones of Europeana. For the Rhine milestone, more than 20,000 (Hellenic) objects are expected to become available through Europeana. In 2010 and beyond, HMCT will devote much effort to the digitisation and annotation of archaeological content and monuments. In this context, HMCT participates in the CARRARE (archaeological content sector aggregator) project starting in March 2010, which will be aggregating archaeological objects for Europeana. HMCT has already started planning aggregation 20,000 items from its branches, i.e., 56 Efories of Archaeological Content. There will be further investigation for aggregating archaeological content the field of Museums, Archaeological Institutes and Foreign Archaeological Schools. There will also be involvement of HMCT in the ECLAP (theat...
rical content sector aggregation) project, which started in spring 2010.

In the HMCT, the Hellenic National Audiovisual Archive plans the creation of a National Aggregator for audiovisual content. Currently the HeNAA will contribute content from its Film Archive (some 700 hours of news audiovisual material from the 20th century) to Europeana through the EU-SCREEN (TV content aggregator) project. Other audio-visual organisations that belong to HMCT, such as the Greek Centre for Cinematography and the Greek Film Centre have digitised the films they possess and offer them through their Web site. Moreover, the Greek Film Centre will contribute its content to Europeana through the European Film Gateway (film content aggregator) project.

The HMCT is also a partner in the DC-Net project, whose aim is examining and relating the digitisation activities in European countries with their e-infrastructures and, particularly, with the research ones. In the context of this activity, it will be possible to arrange collaboration and to create national groups, including representatives from national aggregators, ICT technological experts, representatives of the NRENs, providing results that will be useful for the advancement of research and technological development in the cultural sector, and for its sustainability and digital preservation.

The Hellenic Ministry of Education, Lifelong Learning and Religious Affairs is developing plans to play the role of National Aggregator for content related to libraries and archives as well as of educational content. In this context, they are planning to offer access, through their Web site, to some 18,000,000 pages digitised in their public library network, and to about 5,000,000 pages of the Greek state archives. A small part, about 10% of these, is expected

American teachers visiting the Acropolis in Athens (1953). Hellenic culture has always played a key role in the development of tourism in Greece.

With the kind permission of the Hellenic National Audiovisual Archive.

Evgenios Spatharis playing the Greek “Καραγκιόζης” in a galanty and puppet show in Rome (1961).

One of the most popular historical shows in Greece, illustrating the spirit of Greeks in the last few centuries, hard-working but also clever, always able to make the best of a difficult situation.

With the kind permission of the Hellenic National Audiovisual Archive.
to be searchable through Europeana's Rhine edition, with the great majority of digitised 20,000,000 pages being included in the Danube edition. Some already-digitised Greek content related to libraries and archives is also being offered to Europeana through the Europeana Local project, to which the Library of Veria participates. Based on the above activities, the goal for Greece with respect to Europeana is to significantly increase (in a multiplicative way) the number of Greek objects searchable through Europeana within the current phase (Rhine and Danube editions) of Europeana.

To make digitised Greek content searchable by Europeana, in all of the above-mentioned cases interoperability with Europeana and thematic sector standards has been targeted. Technical assistance to HMCT and HMELLR is provided by the National Technical University of Athens that participates in Europeana v1.0 (and the core group of technical experts), Europeana Connect, and in most of the above-mentioned Europeana-related sector aggregators. In particular, all development is compatible with the current Europeana ESE data model. Nevertheless, in all the above projects, richer data models are being used and afterward exported to ESE in order to ensure compatibility and ease of mapping to forthcoming versions of ESE. In the area of museums, for example, the Lightweight Information Describing Objects (LIDO) v.07 is used.

Moreover, NTUA has developed an Ingestion Tool (in the framework of ATHENA), with which content of the museum area is mapped - in a semi-automatic way, involving the users - to the LIDO (and then to the ESE) representation and can be used by content aggregators in the phase of content ingestion to Europeana. In collaboration with HMCT, training is being organised for Greek cultural organisation staff that will be responsible to provide their content to Europeana. Similar training has been performed in the framework of the ATHENA project at European level. The ingestion tool will also be used by the HMELLR for ingesting their content to Europeana. The ingestion tool will be adapted and used also in the framework of the CARRARE and EUSCREEN projects. Moreover, projects such as APENet and Judaica are planning to use it for content ingestion.

Conclusions

Activities for digitisation and access to cultural content have been widespread in the last decade in the Greek territory. A large variety of monuments, books, artwork, films, 3-D objects, sound and music have been digitized and are offered through their respective sites to national and European citizens. Linkage with similar European activities has also been sought throughout these years (e.g., Minerva, Michael, Tel, Europeana initiatives). Content aggregation is an issue that has been recently taken seriously into account by the state cultural policy.