Digital exhibitions: audience development [also] through the reuse of digital cultural content

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Abstract

Digital exhibitions are a powerful tool at the disposal of cultural institutions to communicate their collections, reach out to new audiences and involve them in a fruitful interaction. If well-conceived and -developed, digital exhibitions put cultural objects, including items that would be impossible to bring together in the physical reality, into context, and communicate them through target group-tailored digital storytelling. Moreover, they allow cultural institutions of different types to cooperate based on a common objective or shared concept. A digital exhibition can consist of materials produced on-purpose, or reuse already available digital content, re-purposing it for the specific objectives and target audiences. In the realisation of a digital exhibition, curators might be helped by tailored software tools, such as MOVIO, an open source software tool supporting digital storytelling and the creation of thematic paths across different media. This tool was successfully used over the last few years by numorous cultural organisations for producing a wide range of different digital cultural exhibitions. An international expert group is studying digital exhibitions from the perspective of cultural institutions, as means to reach out to virtual audiences through quality and attractive cultural content. The group's work is based on the state-of-art of research in the field and aims at providing cultural institutions with guidance, sets of resources and other practical tools. The work was partially supported so far by EC-funded projects of the Europeana galaxy, such as Athenaplus and Linked Heritage. Among the main results of the working group to date, DEMES, a set of metadata elements for the standardised description of digital exhibitions, and the website www.digital-exhibitions.org, making available literature, tools and other references collected throughout the work of the group.

The outputs of the Digital Exhibitions Working Group

Digital exhibitions are a powerful tool at the disposal of cultural institutions in order to communicate their collections, reach out to new audiences and involve them in a fruitful interaction. If well- conceived and developed, digital exhibitions put cultural objects, including items that would be impossible to bring together in the physical reality, into context and communicate them through target group-tailored digital storytelling. Moreover, they allow cultural institutions of different types to cooperate based on a common objective or shared concept. However, there is not yet a sound competence in the outline and design of digital exhibitions within the cultural institutions. Research in the field is still limited and not systematic and guidelines and best practices are not available.

For this reason, a group of experts from different EU countries, and beyond, established in 2011 an international working group dealing with research and practice in the area of digital exhibitions, from a cultural institutions perspective. Aim of the group was identifying good practices, provide guidance, achieve a common understanding of the success criteria for a cultural digital exhibition.

The working group started as self-organised and was later supported by EU-funded projects for digital technologies for the access to cultural heritage, such as Linked heritage [1] and Athenaplus [2].

Based on the collection of examples from all over the world and on their thorough analysis, the working group agreed that the first condition for achieving quality is adopting a strictly curatorial approach when conceiving and realizing a digital exhibition. Another important element is the engagement of the target public. The working group drafted consequently the following working definition of digital exhibition, from the perspective of cultural institutions: "*A digital exhibition is based on a clear concept and is well curated. It assembles, interlinks and disseminates digital multimedia objects in order to deliver innovative presentations of a theme, or series of themes, allowing user interaction to a great extent.*" This definition defines the area of work of the Working Group, but is at the same time under discussion within the group and across the professional community [3].

In order to establish a sound scientific basis for their project, the working group collected a variety of resources that are documented in a database made available to the professional community and other users. The database provides access to print and online resources organised according to various categories: literature, tools, guidelines, trainings, examples and projects. This collection is work in progress, and the group actively invites contributions from external experts.

A first attempt to provide cultural institutions with guidance on the design and implementation of digital exhibitions is represented by the checklist *Things to consider before creating a digital exhibition*. The first version of the checklist is already online [4], and comments by the professional community and the users are invited and welcome. The checklist is structured as a list of questions guiding the planning and realisation of digital exhibitions. Not all questions and statements necessarily apply to each and any project, but they all raise relevant issues and provide explanatory statements helping potential users to get an orientation about the topic.

Fig. 1. Poster derived from the checklist
Things to consider before creating a digital exhibition

The working group was aware that exhibitions, both physical and digital, are usually described by cultural institutions, for information and communication purposes and in order to attract potentially interested public. Lists, catalogues or inventories exist at local, national and international level, but the descriptions are mostly provided free-text or using non-structured formats. The group was aware of the crucial role of a well-defined structured description in order to facilitate the discoverability of digital exhibitions, support the identification by the interested target public, improve the current descriptive practice through standardization, facilitate data sharing and exchange of information and have the descriptions of digital exhibitions included in local, regional, national, European portals for public access, alongside with any other type of digital cultural content. For this reason, the working group embarked in the identification and development of a metadata set for digital exhibitions based on available standards for the collection description (given that the digital exhibition is a specific type of grouping of objects). Aiming at the widest possible diffusion across the same cultural institutions that develop and publish digital exhibitions, the structure of the metadata set was kept quite simple. The selected elements are for the most part already widely used in the descriptive practice (e.g. cataloguing) of cultural organisations. The metadata set currently includes seven sections (identification, description, subject, responsibility, access, rights, relations) and 30 elements, that are individually described, including hints for the practical use. The metadata set was tested by the working group members through the description of real digital exhibitions. The first draft was recently published within the AthenaPlus project [5].

MOVIO and the AthenaPlus 'Musem' pilot
MOVIO, a tool started by the Union Catalogue of Italian Librarires and further developed within the European project AthenaPlus, is a kit of tools enabling all cultural institutions, independently from their public or private nature, to create and publish easily narrations targeted both to experts and non-skilled audiences. It helps the exhibition curators to edit the contents using different tools integrated in the software: media archive, ontology builder, storyteller, different types of image galleries, hotspots, maps, timeline, etc. MOVIO supports multilingualism in the back and front-end and it is released with the MIT license that allows the widest possible reuse of the software [6].
In addition to the features already available, a pilot was run within the AthenaPlus project whose objective was to set up a digital exhibition using the MOVIO Technology. The "Musem" pilot aimed at show-casing museum collections with a new presentation model. According to the Europeana Task Force on Metadata Quality, Report and Recommendations, good metadata must result from a series of trusted processes, must be findable, readable, standardised, meaningful to audiences, clear on re-use and visible [7].
Within the AthenaPlus pilot, the enhanced and quality metadata produced by museum curators in respect to LIDO metadata model was generated by MINT [8] and elaborated inside MOVIO. The resources are more than 1000 content items from more than 20 museum institutions and organised in respect to a thesaurus navigation (similar to Getty's AAT). In fact, the user can explore the digital objects by object classification, time, place and institution.
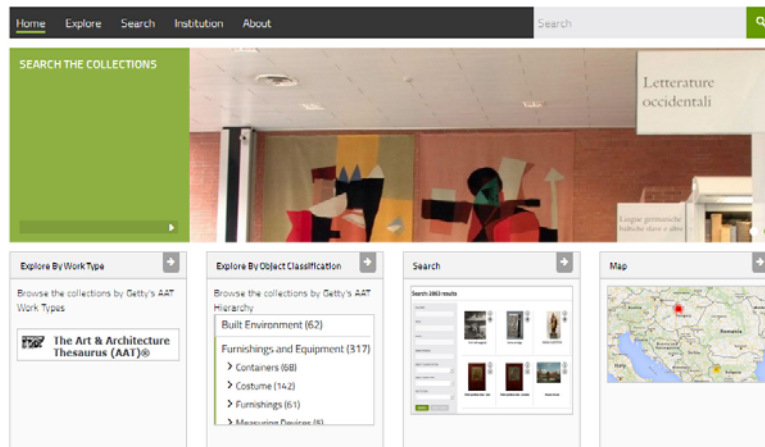
Fig. 2. Homepage of the Musem Pilot

Musem therefore is a compound AthenaPlus exhibition, re-using partners' collections, enabling to further test MOVIO and its elastic capabilities. The pilot was the result of a set of requirements given by a dedicated AthenaPlus task force working on the metadata quality improvement.

Musem is not meant to be a museum portal', it is a MOVIO application with the target to re-use and enhance the experience of a relatively small number of partner's collections, as well as to respond to the demand of quality and specialise the navigation method for these resources.

Particular care was put in the visualization of the metadata, aiming at finding a way to follow the Europeana taskforce recommendations: 1) Need for distinction between indexing and display ["findable" and "readable"]; 2) Need for possibility to display uncertainty; 3) Need for possibility to transmit type of contribution, roles, extent ["readable" and "meaningful to audiences"]; 4) Need for distinction between information coming from the content provider and automatically enriched information ["trusted process"].
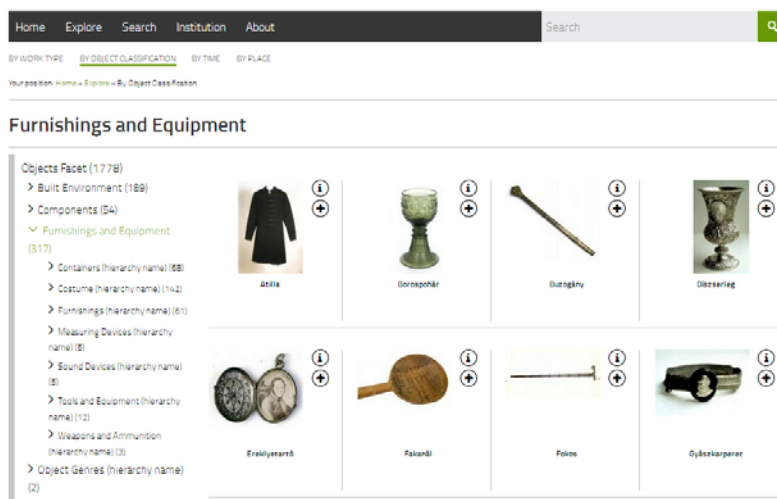

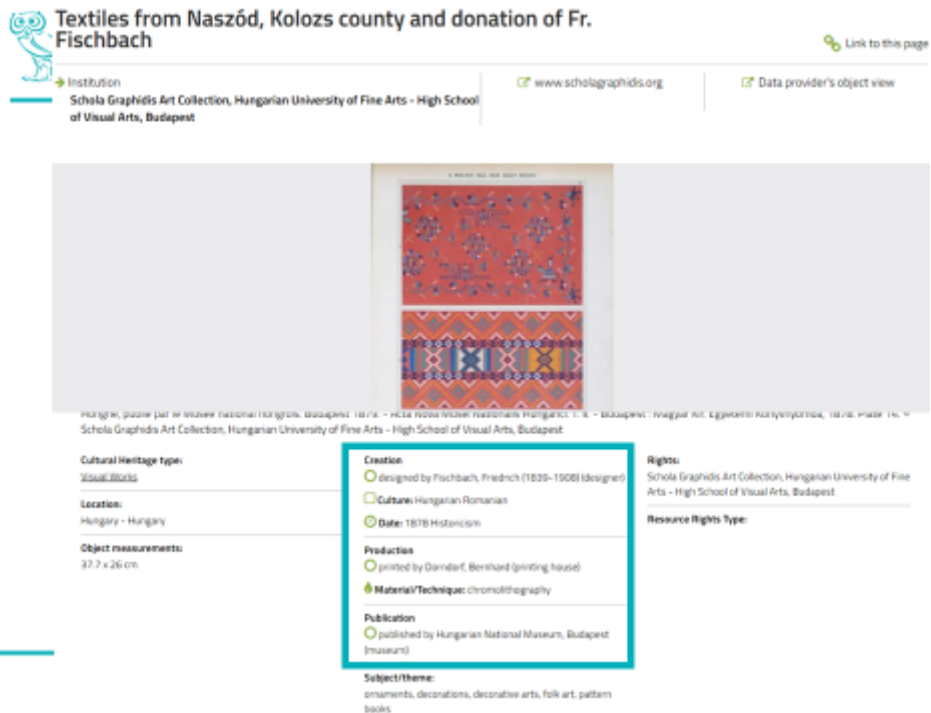**Fig. 3 Visualisation by Object Classification (Furnishings and equipment)**

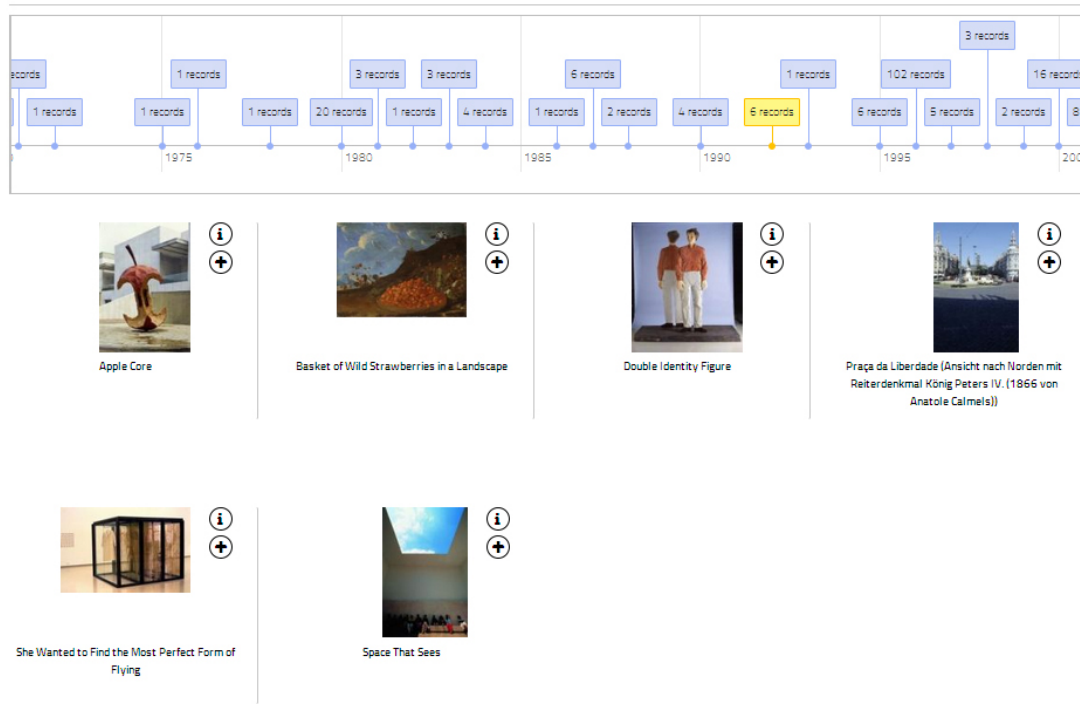**Fig. 4 Visualisation of Events related to a single object**

Fig. 5 Visualisation by time, using a timeline

Concerning the Musem Pilot, its could not have been done without the contribution of Regine Stein (Philipps Universitaet Marburg, Germany), Nikos Simou (National Technical University of Athens, Greece), Sam Minelli and Daniele Ugoletti (GruppoMeta, Italy)

REFERENCES

[1] Linked heritage: coordination of standards and technologies for the Enrichment of Europeana, http://www.linkedheritage.org.

[2] Athenaplus: access to cultural heritage networks for Europeana http://www.athenaplus.eu/. Athenaplus further develops the network and activities established by the previous project Athena: Access to cultural heritage networks across Europe, hhtp://www.athenaeurope.org.

[3] The materials and reflections developed by the working group and the ongoing discussions are documented at the website www.digitalexhibitions.org and on the AthenaPlus website at the following page: http://www.athenaplus.eu/index.php?en/200/digital-exhibitions.

[4] See: http://www.athenaplus.eu/getFile.php?id=586.

[5] *Metadata for the description of digital exhibitions: the DEMES Element Set*, Version 0.9 (August 2015), edited by AthenaPlus Digital Exhibitions Working Grouptexts by Giuliana De Francesco (MIBACT), Arlene Peukert (SPK), Stefan Rohde-Enslin (SPK), Werner Schweibenz (BSZ), available at http://www.athenaplus.eu/index.php?en/206/demes.

[6] All information on MOVIO are available on the AthenaPlus Wiki:
http://wiki.athenaplus.eu/index.php/MOVIO.

[7] Report and Recommendations from the Europeana Task Force on Metadata Quality, December 2013-May 2015, available at
http://pro.europeana.eu/files/Europeana_Professional/Publications/MetadataQualityReport.pdf.

[8] MINT services compose a web based platform that was designed and developed to facilitate aggregation initiatives for cultural heritage content and metadata in Europe. It is employed from the first steps of such workflows, corresponding to the ingestion, mapping and aggregation of metadata records, and proceeds to implement a variety of remediation approaches for the resulting repository. See: http://mint.image.ece.ntua.gr/redmine/projects/mint/wiki/Wiki.