

#### www.digitalexhibitions.org

Technological innovations are constantly changing the cultural landscape and thus they have an impact on the way we perceive and experience our environment. Since the emergence of new media and new technologies, not only have our seeing, hearing, feeling and thinking habits altered, but also our understanding of history has changed significantly mainly in the past 150 years.

The institutionalization of the museum as a place to store, preserve and stage the past is a direct expression of this new perception of history. The rapid development of document-reproduction technologies in the last decades runs parallel to our endeavor to give the past a new place in the present. Museums, as storehouses of knowledge, now continuously digitize information in order to preserve but also provide this knowledge to the public. The Internet, as a network of knowledge, serves as a means to spread information and therefore offers new possibilities to expand the range of knowledge dissemination of museums. Consequently, the traditional model of museums is evolving; the museum is less and less a place restricted by solid walls.

A digital exhibition presents a way for museums to open up their collections and to make their digitized treasures available for exploration and study purposes to a possibly world-wide audience. In recent years a range of tools, many of them free open-source software tools, have been developed that enable museums, libraries and other cultural institutions that house collections to create digital exhibitions and display them online.

These software applications provide templates, functionalities, and plugins that facilitate the management and curation of diverse digital content. Because of the novelty of these services and the relative lack of adequate research literature dealing with the process of setting up digital exhibitions, cultural heritage institutions are often faced with the obstacle of not knowing how to realize a successful digital exhibition that not only presents their digitized content in a fruitful way, but also offers the virtual visitor an enjoyable experience that comprises learning and entertainment.

New Ways of Presenting the Past. Work, Research, and Findings of the International Digital Exhibitions Working Group ARTICLES Monika Hagedorn-Saupe, Arlene Peukert



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digital exhibitions GLAM specific reading material guidelines and trainings dedicated tools

Despite these difficulties, the number of digital exhibitions available online has increased significantly in the last ten years. To monitor, analyze, and discuss developments in the field of digital exhibition creation an open, international Digital Exhibitions Working Group with partners from Poland, Italy, Sweden, Romania, Greece, Israel, Hungary, Belgium, and Germany was established in 2011. The founding group affiliated with the European Linked Heritage project and now works together with partners of the AthenaPlus project, contributing to the work on digital exhibitions in the AthenaPlus project. The research work and findings are being presented on a website with an integrated resource databases for tools, literature, guidelines, and trainings related to the topic of digital exhibition creation and maintenance. In the future it is planned to augment this offer by a database that will feature a compilation of digital exhibitions available online or on other offline storage media, such as DVDs. Members of the working group are therefore searching the Internet and enter the metadata of the exhibitions into an input mask subdivided into six thematic areas.

Apart from a general entry form that asks for the mandatory basic information - Title of exhibition | Identifier | Description | Language of content | Date of publication | Publisher | Location - there are also input masks that help to assemble more specific information about the digital exhibition - Description | Subject | Responsibilities | Access | Relations | WG fields. Here users can, for instance, record more detailed information about associated physical exhibitions or publications, dedicated tools and features, spatial and temporal coverage of the subject, or additional descriptions in other languages than English, etc. Once data entry is completed, the author can make the record publicly visible to the other working group members so that each digital exhibition can be analyzed and discussed by the entire group during meetings held at regular intervals. All exhibitions compiled appear with their title in English and in the original language in an alphabetical list.

For the public digital exhibition database that will presumably go live on the website of the Digital Exhibitions Working Group in the second half of 2015, a search slot will be provided that will allow browsing the data entries according to specific search criteria. This database is understood as work in progress; the working group thus welcomes contributions by volunteers who can report on digital exhibitions by the help of a brief form available on the central website.

It has become obvious at an early stage of the work with the digital exhibition database that a structured metadata format for the description of digital exhibitions is absolutely mandatory in order to improve the current descriptive practice through standardization as well as to facilitate the discovery of the digital exhibitions through search engines and cultural portals. The working group is currently engaged in developing such a structured metadata format for the description

of digital exhibitions ("DEMES" – digital exhibition metadata example sets) that will be made available on the website of the Digital Exhibitions Working Group as well as in the form of a best-practice booklet as an AthenaPlus publication in order to be discussed and further developed by the community.

All the investigation and research work undertaken by the working group can ultimately be traced back to the attempt to gain a deepened understanding of what digital exhibitions are. Currently the working group suggests the following preliminary definition:

A digital exhibition assembles, combines, and displays digital media objects (e.g. images, texts, videos, audio files, 3D files) in a non-dictated, non-reconstructed presentation. The digital objects are approached individually and tied together by "threads" that enable loose narrative combinations of materials based on different criteria, such as subject, author, time, technicalities. User interaction and participation may be wanted to a certain extent.

Very often the terms "digital exhibition" and "virtual exhibition" are used synonymously, but there are also varying definitions. The working group makes the following distinction: both terms refer to a certain quality an exhibition can have - i.e. an organized temporary or permanent display of a certain number of items that requires planning, organization, and curation.

A digital exhibition thus is a curated presentation of selected digitized items (digitized item = analogue item transferred into digital data) that can exist online (online exhibition) or on a digital offline storage media.

A virtual exhibition, in contrast, is a computer simulated reconstruction of a physical environment, in most cases a 3D reconstruction, in which the digitized material is placed. The virtual visitor, given a kind of bodily presence, navigates through the reconstructed space on a given, prescribed path. A virtual exhibition can as well be available online or on offline storage media.

The point of the matter is that the digital exhibition is generally based on a curational approach taking into consideration on the one hand that the exhibition is meant for display solely on a screen (computer, laptop, mobile, etc.) and on the other hand that the digitized material is not arranged in any kind of reconstructed environment of a physical space. Although taking on most of the typical qualities of a physical exhibition, the digital exhibition requires a different curational approach than its real-life counterpart. Texts and digital multimedia objects are embedded in a website-like structure, and thus the narrative or relational threads tying the material together are also dependent on the given hierarchical structure of the website as well as on the web language. Just like in physical exhibitions, a selection of specific objects (sometimes also only a single item) or a specific concept around which the narration forms, is the logical foundation of a digital exhibition. A digital exhibition born from a real exhibition can be designed as an enhancement of the latter by presenting, for instance, additional high-resolution mixed media material that cannot be featured in the physical exhibition for diverse reasons. Although born from a physical exhibition, the digital footprint does not necessarily need to be integrated into the real-world display; however it can present a selection of digitized material from the exhibition to virtual visitors from

all over the world who might otherwise not have the chance to visit the real event, A digital exhibition can also stand on its own, without being associated with a physical event. It can be designed from scratch by various interested groups solely for presentation on the Internet.

With the recent publication of the checklist "Things to consider before creating a digital exhibition", the Digital Exhibitions Working Group seeks to provide support for institutions as well as individuals interested in creating a digital presentation for questions that may arise in the process of planning and setting up a digital exhibition. In order to tackle problems, avoid common, time consuming pitfalls, and solve questions every curator of a digital exhibition eventually has to face, the working group compiled explanatory statements and valuable advice that may come in handy when setting up the first digital exhibition. The checklist can be downloaded from the website of the Digital Exhibitions Working Group.

The working group would like to take the opportunity of this article to present its publication "Things to consider before creating a digital exhibition" more in detail. The following four focus points were selected by the working group members: concept, resources, outreach, and evaluation. Although outlined as a list, these recommendations do not necessarily need to be followed step by step; if at all, these questions may come up simultaneously or during different phases of the project. Dealing with the concept and the material resources needed for the realization of the exhibition can, however, be a possible starting point of the undertaking. Defining the topic and the scope of the digital exhibition based on the type as well as the amount of digitized material at hand should be considered early on in the process. Creators of a digital exhibition should check on the availability and quality of the materials (texts, images, films, audios, videos, etc.) they would like to use to illustrate the topic. It may be necessary that the material they wish to include in the presentation be digitized first or digitized again in a higher resolution. It can also occur that the material is not at the creator's disposal and has to be organized from another institution. Both of these steps are time consuming and should thus be prioritized in order not to obstruct the workflow. Furthermore, the copyrights of the different media materials have to be checked before integrating them into the digital display. In the case that digitized content held by other institutions than one's own is going to be displayed in the exhibition, copyright issues have to be clarified beforehand. Exhibition creators may also take into consideration providing the virtual visitor with information on what they can do with the copyrighted/non-copyrighted material, for example by referring to creative commons licenses. Distinguishing the target group(s) of the exhibition goes hand in hand with first reflections on the general purpose of the display (education, entertainment, edutainment). Explanatory texts and labels for the material featured in the exhibition should get adapted to the needs and demands of the target audience(s). It should be considered to offer explanation of certain terminologies, give background information and timelines for historic events, or biographic data of historic personalities. Other important aspects to consider when planning a digital exhibition are the technical, financial, and human resources required. Early in the planning process the creators of the digital exhibition should opt for a technical infrastructure suited for the size of the project. A decision should be made whether the exhibition can be integrated into an already existing content management system, or whether a ready-made tool, such as MOVIO or Omeka, fits the purpose. A third possibility would be to





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develop new software adjusted to the special conditions and requirements of the project. For smaller projects that can be realized with free open-source software, a handful of experts may be needed at a maximum. Setting up a more complex digital exhibition may require the engagement of further specialists such as web masters, thematic experts, museum education officers, etc. Hiring volunteers (crowd-sourcing, expert-sourcing) is a cost-efficient alternative digital exhibition creators may want to take into account. Determining the state of funding of the project is another crucial step on the way to realizing a digital exhibition. After calculating the funds needed for technical, human, and material resources as well as for the maintenance and dissemination of the digital exhibition, an investigation for grants, sponsorships, and other fund providers is advisable. Once all these fundamental questions concerning concept and resources of the digital exhibition have been clarified, interactive aspects, outreach and dissemination activities of the project can be addressed. Exhibition creators have to decide on the quantity of interaction they want to offer to online visitors, bearing in mind that maintaining, monitoring, and moderating all these interactive channels for communication, exchange, community-building and feedback require further human resources. Additional services implemented in the digital display can help to enhance the visibility of the project, and make it more interesting and attractive to the target audience(s). Exhibition creators should contemplate beforehand to what extent virtual visitors will be given the right to share and reuse the materials offered (cf. creative commons licenses). In accordance with the topic of the digital exhibition, and adapted to the needs of the audience, additional services should be selected with care in order not to overload the presentation. Services provided could range from high-resolution images, movies, and audio files to teaching materials for different levels of education, to edutainment features such as games and quizzes and information materials like newsletters, calendars of events or blogs. An intermediate step worth taking at this phase of the planning process is outlining the preliminary structure and the table of contents of the digital exhibition. It should be defined where exactly in the hierarchy of the exhibition which materials, texts, and services will be displayed in order to be beneficial to the logical and narrative concept of the project. Scheduling milestones and setting up a risk management plan will help to have the digital exhibition ready in time and foresee and estimate potential risks that may obstruct the progress of the project. To set the undertaking up for success, the development of a dissemination strategy is mandatory. Especially those media channels frequented by the targeted audience(s) should be prioritized when it comes to advertising the digital exhibition. It is advisable to start spreading information via one's own communication channels first (institutional website, newsletters, mailing lists, social media channels, leaflets distributed at the institution or at related events, etc.); this will draw attention to the project and spark further interest in a larger circle of potential virtual visitor groups. Search engine optimization in order to increase the visibility of the digital exhibition is another method which should be taken into account. Once the digital exhibition is live and running, monitoring the impact of the exhibition as well as measuring its success based on certain evaluation criteria can be a beneficial effort in case creators want to apply lessons learnt from this to future projects. It should be defined which



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a metadata schema suggestion for describing and sharing digital exhibitions

aspects of the digital exhibition creators want to evaluate - for instance, page views, number of unique visitors, number of downloads, number of likes, user comments, user experience, etc. Special tools may be needed for the evaluation and documentation of the criteria selected; creators of the exhibition should budget for possible extra costs. Maintenance, archiving, and long-time preservation of the digital exhibition are a point many exhibition creators might overlook or regard as less significant. However, maintenance and archiving of the digital presentation should not be neglected, because sooner or later software applications will be outdated and content migration will gradually become more troublesome. For the time being only very limited individual software products for the archiving of digital exhibitions is available on the market, which is why creators should keep in mind from the very beginning of the project to use standardized formats, coding, and metadata as well as widely-used content management systems.

Summing up: a clear, logical concept, a suitable technical infrastructure, high-quality material and a well-thought out narrative are the basic components of a successful digital exhibition that not only offers virtual visitors a rich multisensory experience but also creates new ways of understanding and perceiving cultural heritage content and thus the past. The Digital Exhibitions Working Group will continue its research work in the future offering to memory institutions and other interest groups its findings as well as valuable resources, guidelines, GLAM specific reading materials and in-house publications on its official website. Working group members cordially invite interested persons to contribute to the success of the project by sending in comments, providing examples of digital exhibitions, and suggesting new resources.



## contribute

send comments provide examples suggest new resources



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