



# Online virtual exhibitions Guidelines for realisation

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**INDICATE Workshop**



- One of the main goals of public and private cultural institutions (GLAMs) is **the promotion and dissemination of knowledge.**
- They accomplish their mission thanks to knowledge dissemination tools that include, among others, **temporary and permanent exhibitions and performances** that follow codified models, whose goal is to **expose citizens to the national and international cultural and artistic heritage.**



The meeting between the languages and methods of traditional cultural promotion (**non-virtual exhibitions**) and the promotion and dissemination of knowledge through web-based methods (**online virtual exhibitions**) have made it necessary in Italy to draft **shared guidelines and recommendations** that encourage the use of the web and maximize its potential.



#### Le mostre virtuali online:

- concorrono alla **valorizzazione** del patrimonio culturale conservato dall'istituzione
- sono uno strumento di **apprendimento** e di arricchimento della conoscenza
- possono rendere fruibile una **quantità** di documenti e oggetti di gran lunga superiore a quanto una qualsiasi mostra reale sarebbe in grado di esporre
- consentono di rendere disponibili al pubblico **le opere e i documenti più preziosi**, senza mettere a rischio il compito di tutela del patrimonio nazionale e internazionale
- permettono la **fruizione** di oggetti che potrebbero non essere accessibili all'utenza
- permettono la **visione di parti e dettagli** di opere altrimenti non percepibili anche osservando l'originale
- sono fruibili nel **tempo**, non essendo limitate alla durata dell'evento reale
- possono essere "visitati" quasi sempre **gratuitamente** da utenti di ogni parte del **globo**, che potrebbero non visitare mai la mostra reale
- sono **dinamiche**, perché possono essere modificate anche dopo che sono state realizzate, sia negli aspetti progettuali sia nelle attività e nei contenuti
- possono essere arricchite con il **contributo degli utenti**
- possono essere realizzate anche con budget limitati ed essere più **economiche** degli allestimenti reali
- possono avere la **funzione di archivio online** delle informazioni relative alla mostra reale
- possono avere una ricaduta positiva sull'**indotto turistico**

## mostre virtuali ONLINE

LINEE GUIDA PER LA REALIZZAZIONE  
versione 1.0 (settembre 2011)



<http://www.otebac.it/index.php?it/320/mostre-virtuali-online-linee-guida-per-la-realizzazione>

These guidelines, edited by MiBAC, aims:

- to illustrate the **state of the art on online virtual exhibitions**, both on the basis of **the actual experience** accrued by various Italian institutes and the **observation and analysis of international products**
- to **clarify some concepts** that in literature are not yet fully codified, and give some **recommendations and a tool kit** to institutions who want to realise projects.

This MiBAC initiative has been promoted by  
**Istituto centrale per il catalogo unico delle biblioteche  
italiane (ICCU)** <http://www.iccu.sbn.it>

- manages the online catalogue of the Italian libraries and the interlibrary loan and document delivery National services
- develops standards guidelines for the cataloguing and digitization.

**Istituto centrale per gli archivi (ICAR) -**  
<http://www.icar.beniculturali.it/>

- develops plans and programs for the archival description and the development and interoperability among information systems
- promotes the knowledge and application of descriptive standards and technology.

**Osservatorio tecnologico per i beni e le attività culturali  
(OTEBAC)** <http://www.otebac.it>

- provides advisory services, monitoring, and training , supporting cultural institutions in the creation and maintenance of quality digital cultural applications



# A cross-domain working group

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# 1. Concepts and definitions

1.1 Exposition, exhibition

1.2 Online virtual exhibition

1.2.1 Thematic route

– 1.2.2 Digital item

– 1.2.3 Hypertext, hypermedia, multimediality,  
interactivity

– 1.2.4 Information architecture



# Glossary

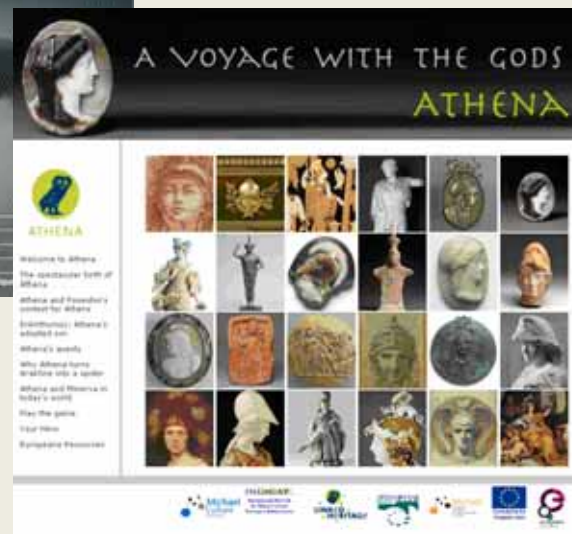
- The term **exposition**, in its broadest sense, indicates the rational process through which one attempts to divulge a concept or topic by explaining its logical content or linking it to other concepts or topics that help highlight its meaning
- The term **exhibition** indicate an event with a specific venue and time, during which the public can enjoy a series of objects, paper and/or multimedia documents, books, paintings, sculptures, and other items, related to one another and organized according to logical, thematic, spatial, historic, and/or authorial criteria, and made accessible either permanently or temporarily, through one or more narrative routes, with scientific, didactic, and/or promotional goals.



# Glossary

Cultural institutions are increasingly recurring to exhibitions that fall **outside the traditional space/time parameters**, and are instead staged on IT platforms **accessible via the web**.

These are **online virtual exhibitions**.



# Glossary

## Current debate:

### digital exhibition vs. virtual exhibition

**Virtual exhibitions:** to be used mainly in the case of 3D reconstructions in which there is actually also a virtualization environment in which the works are located.

**Digital exhibitions:** the object is not faced with any kind of reconstruction, the work of art is approached "individually", included in a "path" that performs logical combination of materials based on different criteria: subject, author, time , technicalities, ...



An online **virtual/digital** exhibition is a hypermedia collection accessible via the web, and made up of digital items which are:

- **linked together** by a common theme, an inter-disciplinary topic, a concept, an idea, an anniversary, a special event, or a physical person
- **displayed in 2D or 3D**
- occasionally memorised in **distributed networks**
- made accessible through the potential provided by modern technology, thanks to a **system architecture** designed to provide user-centred, absorbing experiences
- **dynamic products** that can offer services and be updated periodically.

- Virtual/digital exhibitions are often **generated by real events**, even though they may result in products that are **autonomous**, due to the web language they use.
- Online virtual/digital exhibitions can be staged with **more or less sophisticated IT tools**, depending on the degree of complexity and the goals in question.



- The most basic virtual exhibition is an **advertising showcase for the real event**, included in the website.

It generally includes a series of informative pages and a photo gallery featuring the exhibition's highlights.

These are often part of a broader set of coordinated marketing actions, whose main goal is to increase the number of visitors to the real exhibition.



- One step up on the complexity ladder are **virtual visits to real exhibitions**, based on a specific web project aiming to depict the exhibition's actual arrangements, and allowing users to approximate as much as possible a real visit, enhanced at times by information pages. Sometimes users need to download specific software in order to access this service.



- The most sophisticated are **complex virtual/digital exhibitions** making full use of the conceptual, instrumental, and linguistic tools provided by new technologies, and using the full extent of their potential.

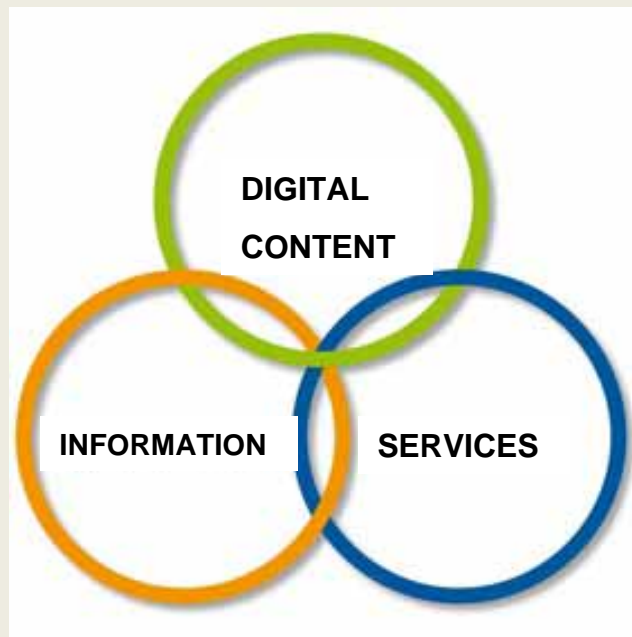
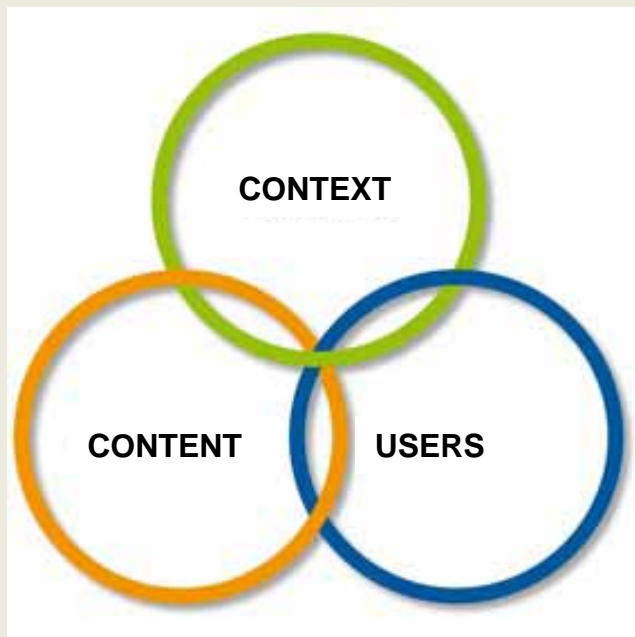




- In summary, a collection of digital items, in and of itself, does not constitute a material or virtual exhibition. It is only when the items are carefully selected to illustrate a topic, and are **tied together forming a narrative or a logical itinerary**, that they constitute an exhibition.
- Online virtual/digital exhibitions, independently of degree of sophistication of the technology used, can and must be put together in such a way that they can provide **alternative experiences to the real event**, which can involve the user in a **process of discovery, knowledge acquisition, and learning**.

Any virtual/digital exhibition must rest upon an **information architecture** that makes up the logical and semantic organizational structure of the project's information, content, processes and functionality. It is at the heart of any interaction design project.

The **structure** of a virtual/digital exhibition is composed of digital content, information and services.



During the conception phase, the contents of a virtual exhibition can be aggregated according to thematic relations, which may be more or less prevalent and non-exclusive depending on the objectives to be pursued, such as:

**Spatial aggregation:** objects are connected by real or reconstructed spatial links (e.g. geographic, environmental, urban, housing, etc.)

**Temporal aggregation:** objects are connected by chronological links (e.g. historical period, event, celebration, phase, etc.)

**Typological aggregation:** objects are connected by their typology (e.g. style, manufacturing technique, material, production, etc.)

**Comparative aggregation:** objects are aggregated on the basis of links arising out of the comparison with other models, thus creating a network of similar contents (e.g. comparisons between civilizations, roles, etc.).

In addition, there are aggregations which take into account the target audience and the relationship with users:

**Functional aggregation:** function and/or goal which the exhibition can help meet (for example, target users: schools for the disabled, university students ... or educational/didactic purposes)

**Behavioural aggregation:** when the exhibition encourages and develops behaviours that can attract other behaviours. This is the case with regards to interactions between multiple communities of users and/or visitors, which bring about broader relationships and new developments (e.g. interactive and community areas, Web 2.0 features).

## 2. PRODUCTION PROCESS OF A VIRTUAL EXHIBITION

- 2.1. Conception
  - 2.1.1 Brainstorming
  - 2.1.2 Thematic relations
  - 2.1.3 Virtual exhibitions and thematic routes for educational purposes
- 2.2. From planning to creation
  - 2.2.1. The project team
  - 2.2.2. Selection of digital resources
  - 2.2.3 Definition of the architecture: contents, information, and services
  - 2.2.4 The technology to be used
    - 2.2.4.1 Mobile devices
    - 2.2.4.2 Augmented reality
  - 2.2.5 The budget
  - 2.2.6 Definition of operating phases and timeline
- 2.3 Testing, publication, communication, and dissemination
  - 2.3.1 Testing and publication
  - 2.3.2. Communication and dissemination
    - 2.3.2.1 Traditional communication tools
    - 2.3.2.2 Social media marketing
- 2.4 Updating, maintenance, and conservation

### 3. EIGHTEEN RECOMMENDATIONS AND ONE PIECE OF ADVICE

#### 4. TOOL KIT

4.1 Graphic design

4.2 Text style

4.3 Multi-media resources

- 4.3.1 Still Images
  - 4.3.1.1 OCR: text conversion
- 4.3.2 Audio
- 4.3.3 Video
- 4.3.4 3D
  - 4.3.4.1 Computer graphics
  - 4.3.4.2 Immersive photography
  - 4.3.4.3 Anaglyph images

4.4 Copyright, re-use of content, and access modalities

## Benchmarking Virtual exhibitions/Thematic routes

Responsible institution, country	<ul style="list-style-type: none"> <li>• 3D</li> </ul>	<ul style="list-style-type: none"> <li>• 360° images</li> </ul>
Title Virtual exhibition/Thematic route	<ul style="list-style-type: none"> <li>• Captions</li> </ul>	<ul style="list-style-type: none"> <li>• Other (specify)</li> </ul>
URL	<ul style="list-style-type: none"> <li>• Information on the real exhibition</li> </ul>	Multilingualism (if yes, list languages)
Realisation Date	<ul style="list-style-type: none"> <li>• Other (specify)</li> </ul>	Audiences
Equivalent real exhibition	Apparata	<ul style="list-style-type: none"> <li>• General public</li> </ul>
Category	<ul style="list-style-type: none"> <li>• Indexes (places, names ecc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Researchers</li> </ul>
<ul style="list-style-type: none"> <li>• Virtual exhibition</li> </ul>	<ul style="list-style-type: none"> <li>• Bibliographies</li> </ul>	<ul style="list-style-type: none"> <li>• Schools</li> </ul>
<ul style="list-style-type: none"> <li>• Thematic Route</li> </ul>	<ul style="list-style-type: none"> <li>• Webliographies</li> </ul>	<ul style="list-style-type: none"> <li>• Children</li> </ul>
<ul style="list-style-type: none"> <li>• Other (specify)</li> </ul>	<ul style="list-style-type: none"> <li>• Chronologies</li> </ul>	<ul style="list-style-type: none"> <li>• Other (specify)</li> </ul>
Technical features	<ul style="list-style-type: none"> <li>• Sources</li> </ul>	Usability quality (high, middle, scarce)
<ul style="list-style-type: none"> <li>• Static website</li> </ul>	<ul style="list-style-type: none"> <li>• Glossaries</li> </ul>	Accessibility quality (high, middle, scarce)
<ul style="list-style-type: none"> <li>• CMS</li> </ul>	<ul style="list-style-type: none"> <li>• Publications and catalogues</li> </ul>	Text quality (high, middle, scarce)
<ul style="list-style-type: none"> <li>• Special software</li> </ul>	<ul style="list-style-type: none"> <li>• Other (specify)</li> </ul>	Images quality (high, middle, scarce)
<ul style="list-style-type: none"> <li>• Simple Search functionalities</li> </ul>	Services	Captions quality (high, middle, scarce)
<ul style="list-style-type: none"> <li>• Advanced search functionalities</li> </ul>	<ul style="list-style-type: none"> <li>• Educational packages</li> </ul>	Design quality (high, middle, scarce)
<ul style="list-style-type: none"> <li>• Query to databases</li> </ul>	<ul style="list-style-type: none"> <li>• Games</li> </ul>	Hypertext (Very much, much, few, none)
Content area	<ul style="list-style-type: none"> <li>• Ticketing</li> </ul>	User generated content
<ul style="list-style-type: none"> <li>• Texts</li> </ul>	<ul style="list-style-type: none"> <li>• Bookshop</li> </ul>	Sharing with social networks (Facebook, You Tube, Twitter, etc.)
<ul style="list-style-type: none"> <li>• Cards</li> </ul>	<ul style="list-style-type: none"> <li>• Other (specify)</li> </ul>	Possibility of downloading high resolution images
<ul style="list-style-type: none"> <li>• Index</li> </ul>	Cover	Mobile version
<ul style="list-style-type: none"> <li>• Image galleries</li> </ul>	<ul style="list-style-type: none"> <li>• Credits</li> </ul>	Short description
<ul style="list-style-type: none"> <li>• Interview</li> </ul>	<ul style="list-style-type: none"> <li>• Info on technologies</li> </ul>	
<ul style="list-style-type: none"> <li>• Storytelling</li> </ul>	<ul style="list-style-type: none"> <li>• Terms of use</li> </ul>	
<ul style="list-style-type: none"> <li>• Videos</li> </ul>	<ul style="list-style-type: none"> <li>• Copyright (specify)</li> </ul>	Positive feedback
<ul style="list-style-type: none"> <li>• Animations</li> </ul>	<ul style="list-style-type: none"> <li>• Other (specify)</li> </ul>	
<ul style="list-style-type: none"> <li>• Speeches recordings</li> </ul>	Software	Negative feedback
<ul style="list-style-type: none"> <li>• Music recordings</li> </ul>	<ul style="list-style-type: none"> <li>• Timeline</li> </ul>	Consultaion date
<ul style="list-style-type: none"> <li>• Documentations (newspapers articles, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Tag cloud</li> </ul>	Your name
<ul style="list-style-type: none"> <li>• Maps</li> </ul>	<ul style="list-style-type: none"> <li>• Tagging</li> </ul>	Screenshots (add the homepage or cover screen shot and all screenshot which can be useful for describing some features)
<ul style="list-style-type: none"> <li>• Graphics</li> </ul>	<ul style="list-style-type: none"> <li>• Geotagging</li> </ul>	
	<ul style="list-style-type: none"> <li>• Slideshow</li> </ul>	
	<ul style="list-style-type: none"> <li>• Zoom</li> </ul>	
	<ul style="list-style-type: none"> <li>• Turning pages software</li> </ul>	

# Advantages of virtual exhibitions

- help **promote** the cultural heritage preserved by the institution
- are a **learning** tool that helps enhance knowledge
- can make accessible an **amount** of documents and items that is much greater than what any material exhibition could ever manage to display
- can make accessible to the public the **most valuable** works and documents, without putting the national and international cultural heritage at risk





# Advantages of virtual exhibitions

- help users **enjoy** documents and works that may not be accessible otherwise
- make it possible to **view parts and details** of works that could not otherwise be seen, not even through the direct observation of the original
- remain accessible **over time**, since they are not limited to the duration of the actual event
- can almost always be “visited” **free of charge** by users from **all over the world**, who may not be able to visit the actual exhibition



# Advantages of virtual exhibitions

- they are **dynamic**, since they can be modified even after they have been changed, both with regards to planning aspects and to their activities and contents
- can be enhanced by the **contributions of users**
- they can be staged even on limited budgets, and are **less expensive** than actual exhibitions
- they can **serve as an online archive** for information related to the material exhibition
- they can have positive repercussions on the **tourism industry**.



# MOVIO project

MOVIO project (18 months), funded by Fondazione Telecom Italia, intends to realise **a kit to build online virtual exhibitions online.**

Through it, Italian cultural institutions will be able to highlight masterpieces of their collections, as well as less known or “not visible” works of art.

An example of public-private partnership



# MOVIO project

The kit will consist of:

- an **open source CMS** for the creation of online virtual exhibitions
- the **equivalent version for mobiles** (iPhone, Android for smartphones and iPad)
- the **version of App** for popular mobile platforms (iMovio) online tutorials and training

The kit will put in practice and validate what declared in the guidelines

# INDICATE Virtual Exhibitions Case Study

The case study, through a survey among partners and the analyses of current practices investigates connections between virtual/digital exhibitions and e-infrastructures.

The results will be made available in a report targeted to memory institutions, illustrating advantages for **institutions, curators** and **final users**.

Many opportunities:

Storage

Band Efficiency

Supercomputing

Virtual communities (shared tools and cooperation projects)

Educational services

Virtual performances





# Thanks!

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