



Italian Presidency  
of the Council  
of the European Union



italia2014.eu

# DIGITAL CULTURAL HERITAGE AND TOURISM Recommendations for cultural institutions

version 1.0, 2 October 2014

in cooperation with



## ATHENA PLUS

Access to cultural heritage  
networks for European



Ministero  
dei beni e delle  
attività culturali  
e del turismo



**Drafted by the MiBACT  
working group for the production of  
recommendations on the use of digital  
technologies for tourism**

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*Acknowledgements*

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# DIGITAL CULTURAL HERITAGE AND TOURISM

## Recommendations for cultural institutions

### FOREWORD AND OBJECTIVES

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Culture is one of the pillars of tourism marketing strategies and can be an engine to attract tourists even in lesser known places.

#### Whereas

- part of the digital cultural heritage potentially useful for the tourism sector is not yet digitized
- the opportunities arising from the cultural heritage of tourist interest are not sufficiently known in the tourism market
- the essential precondition for the use of digital cultural resources for tourism purposes (and not only) is the existence of a network infrastructure that allows to effectively and efficiently exploit the opportunities offered by the mobile technology.

The Ministry of Cultural Heritage and Activities and Tourism made recommendations addressed to the cultural institutions that aim to promote their heritage and tourism offer through the use of technology and digital means, thus giving tourism a boost.

#### The objectives of the present recommendations are:

- to support the digitization of cultural heritage as a strategic aspect of tourism promotion
- to encourage the intelligent use of open-source data in order to support a creative approach to providing



innovative tourism services that build upon the cultural heritage of individual institutions and the local area as a whole

- to stimulate collaboration among all the stakeholders in the tourism chain to activate synergies that will be beneficial to all: cultural institutions, private bodies, creative industries, and tourists
- to facilitate tourism initiatives and services that address the real needs of users, exploiting the opportunities provided by the web and digital technologies to improve the tourist experience before, during, and after the visit.

### Considering

- the importance of digital cultural heritage as the engine for new job opportunities and economic growth
- the need to make digital data open and accessible in the cultural sector as well, in order to facilitate its re-use
- the need to implement shared, Europe-wide strategies to promote tourism
- the promotion of innovative technologies as an engine for intelligent, sustainable, and inclusive growth.

### As stated in the following documents:

[2014] Law 29 July 2014 n. 106 "Conversione in legge, con modificazioni, del decreto-legge 31 maggio 2014, n. 83, recante disposizioni urgenti per la tutela del patrimonio culturale, lo sviluppo della cultura e il rilancio del turismo"<sup>1</sup>

[2014] Tourism: European Policy Recommendations (draft version)

[2014] Conclusions on cultural heritage as a strategic resource for a sustainable Europe<sup>2</sup>



[2013] Directive 2013/37/EU of the European Parliament and the Council of June 26, 2013 amending Directive 2003/98/CE on the re-use of public sector information<sup>3</sup>

[2012] Growth Decree 2.0 ("Open by default") – Law Decree, October 18, 2012, n. 179 containing "Additional Urgent Measures for the Country's Growth" (Gazzetta Ufficiale, December 18, 2012, n. 294)<sup>4</sup>

[2011] Commission Recommendation on Digitisation and Digital Preservation<sup>5</sup>

[2010] European Digital Agenda<sup>6</sup>

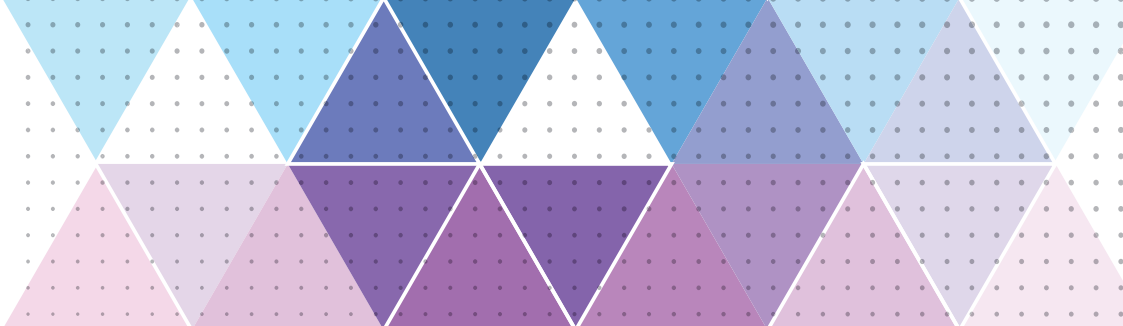
[2010] Communication on Tourism: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions<sup>7</sup>

[2007] European Parliament resolution on a renewed EU Tourism Policy: towards a stronger partnership for European Tourism (2006/2129(INI))<sup>8</sup>

[2003] The Charter of Parma<sup>9</sup>

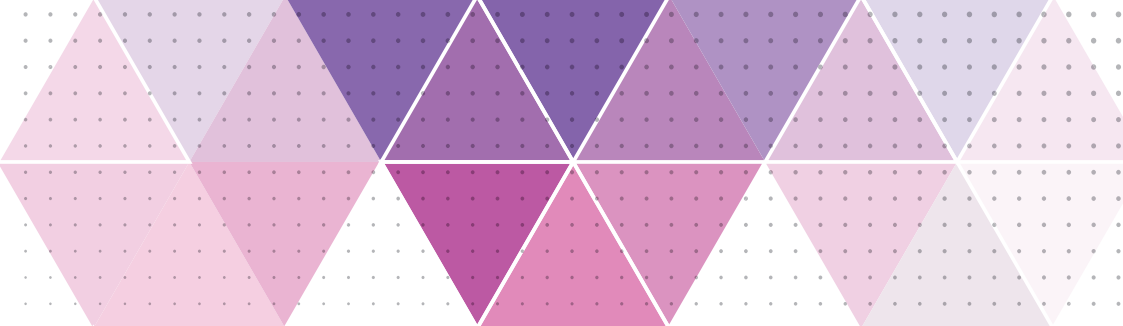
**Considering** the numerous benefits to all stakeholders involved in cultural tourism arising out of the digitization of cultural heritage, its publication online, and its re-use, namely:

- The opportunity for cultural institutions to:
  - self-promote
  - promote tangible and intangible cultural heritage, both well and less-known
  - increase the flow of tourists, visitors, and website visits
  - diversifying the offer depending on the target group (age, level of interest, language)



- The opportunity for creative industries to:
  - exploit the potential of the digital cultural heritage to design innovative tourism services and to avail themselves of highly skilled and specialized professionals
- The opportunity for European and national aggregators to:
  - improve the quality of information on the digital cultural heritage held by cultural institutions in order to better meet the needs of the tourism sector
  - establish and strengthen contacts and links with all stakeholders in the cultural tourism chain
  - have more tools at their disposal to make the case with political decision-makers that digital cultural heritage can be the engine of strategies for the tourism market
- The opportunity for small and medium enterprises operating in the tourism sector (hotels, restaurants, tour operators, service companies, etc.) to have cultural content at their disposal to help them achieve more effective market positioning
- The opportunity for tourists to:
  - access additional sources of knowledge in order to be able to visit, either virtually or in person, less well-known or peripheral sites of cultural interest
  - planning and personalizing their travel experience thanks to the opportunities provided by technology, particularly mobile technology.

**We provide** the following recommendations targeted to cultural institutions:



## **DIGITIZATION**

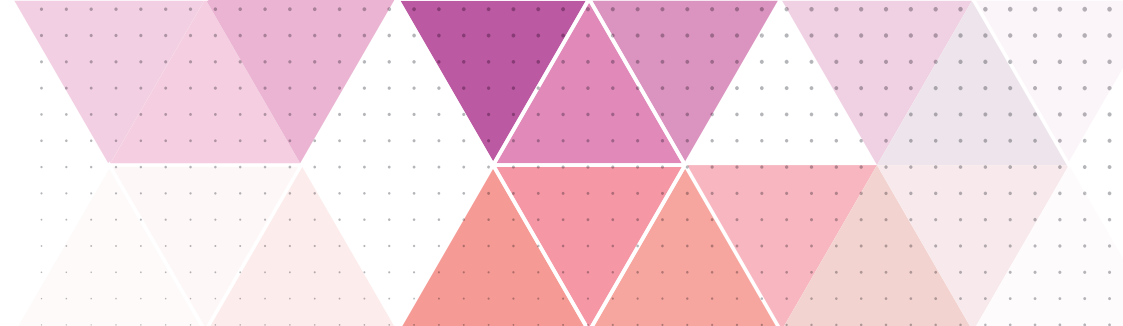
Cultural heritage, which is already available in digital format and accessible to the public via the web in digital libraries and databases, should be accompanied by high-quality information in order to be re-used effectively to create tourism services, cultural itineraries, and to help tourists further their knowledge while enjoying leisure time.

The geolocation of digital resources makes discovery on the part of users easier, facilitates the creation of new thematic itineraries that take account of the varied interests of tourists, and encourages the development of innovative services delivered via mobile devices.

In publishing information associated with cultural content, cultural institutions should also include:

- when possible, the information should be provided in languages other than Italian, at least in English
- information and geographic coordinates on the location of the content at hand<sup>10</sup>
- keywords that facilitate the recovery of this information for tourism purposes.

Cultural institutions should take into account the potential provided by crowdsourcing – the involvement of volunteers in a digitization project. Researchers and amateurs can contribute to the description of digitized objects<sup>11</sup>, making it possible to speed up the cataloguing of a collection and providing additional support in interpreting documents. The more experts contribute to the analysis, the easier it will be to correct mistakes and achieve greater accuracy.



Projects to create new digital libraries using resources send by users may prove useful in the tourism market as well<sup>12</sup>.

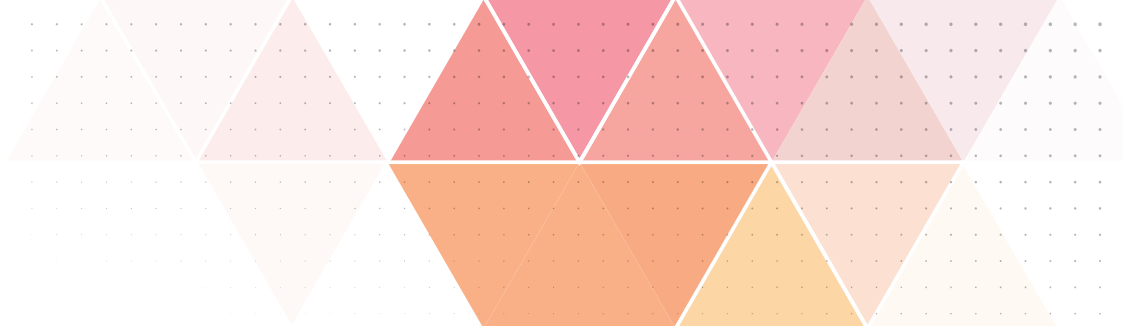
Visitors to sites of cultural interest could also be involved in the creation of new digital resources (images, videos). The creation of new digital cultural content on the part of users, with due regards for cultural objects and sites and in compliance with existing regulations, may serve as a tourist attraction itself<sup>13</sup>.

Compatibly with the personnel at hand and their professional skills, cultural institutions should evaluate the suitability of establishing full-time internal departments dedicated to digitization and multi-media resources.

## **INTEROPERABILITY**

In a globalized society, with an ever-increasing variety of systems and applications, interoperability makes it possible to re-use digital content and to develop global markets and systems, including those related to tourism, while preventing the undesired effects of fragmentation. The cultural institutions that have created digital libraries or that intend to do so should make them interoperable from the outset with the national cultural aggregator Culturalitalia and with Europeana, the European Digital Library, in order to increase the visibility of their heritage and share quality metadata and digital content provided with open licences.





## **INTELLECTUAL PROPERTY RIGHTS, OPEN DATA, LINKED DATA, RE-USE**

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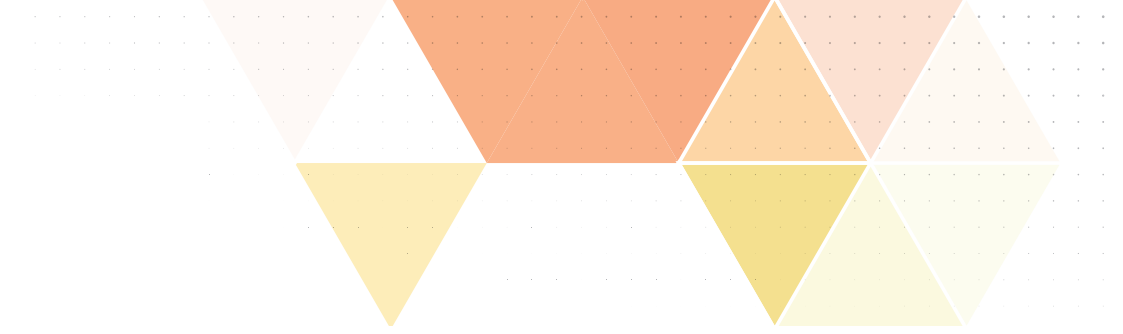
An explicit licence or statement of use must be associated with each digital cultural item, so that users may know whether and under what terms that object can be used for commercial or non-profit purposes, for personal purposes, or for academic or creative purposes<sup>14</sup>.

The institution should make it explicit and clear to anyone re-using a digital cultural item how to adequately cite its source.

In Italy, the data and documents published online by the public administrations that hold them – without an explicit license of use that defines the scope and limits on their re-use – are to be considered open data, which can be freely accessed by anyone and re-used, including for commercial purposes<sup>15</sup>.

Releasing digital cultural information as open data can have economic benefits for the various stakeholders along the production chain (from the cultural institution that owns the cultural object to creative industries, digital artisans, and tour operators), and more generally in terms of improved knowledge on cultural heritage<sup>16</sup>.

Cultural institutions are thus encouraged to release their heritage as open data, in compliance with existing national legislation.



Institutions are also encouraged to publish open data as Linked Data, so that they can be directly queried by any application regardless of programming language or technology. Tourism is one of the fields in which open access to data can bring about benefits and create new opportunities<sup>17</sup>.

## **WEB COMMUNICATION, SOCIAL MEDIA**

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The identity of the website's owner (museum, library, archive, superintendence, foundation, company, DMO<sup>18</sup>, etc.) must be made explicit in the domain name and on each of the website's pages.

Tourists should be able to understand whether the service is provided by an institution, or if it is an additional service by the institution or another provider.

Information of interest to tourists (opening hours, tickets, available services such as apps or audio guides) present on the websites and portals of cultural institutions must be visible, up-to-date, and easily located by tourists.

Information of interest to tourists should be available in several languages or, at the very least, in English.

Information on the status of the rights of the digital content should always be present, so that the users are aware of any eventual restriction on the use of the resource.

The promotion of digital cultural content of tourism interest should take place both through traditional online



tools (portals and websites) and through social media, which is particularly effective in reaching out to the public at large. Social networks require constant, planned attention, and if possible, full-time experts devoted to them.

## **MULTIMEDIAILITY AND TRANSMEDIAILITY**

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Cultural institutions should augment traditional information and education tools with products made with innovative technologies, in order to make their heritage more accessible and engaging either online, on mobile devices, or in multimedia installations in areas open to the public.

Digital cultural content for tourists and web users should generally be simple and engaging: simplicity attracts visitors of all stripes, and for those with a particular interest in the topic at hand, leaves them hungry to learn more.

Cultural institutions should assess the opportunities provided by new technologies to put together stimulating digital exhibitions and itineraries, exploiting the potential provided by digital storytelling<sup>19</sup> and transmedia storytelling<sup>20</sup> and accounting for various types of tourism, including specialized ones (related to school visits, sports, social memories, conferences, religions, food and wine, movies).



## **ACCESSIBILITY AND USABILITY**

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E-Inclusion – the inclusion of citizens in the information society – depends on technological solutions that must be supported by strategies to boost demand. The challenge that must be met is that of digital literacy, starting with bridging the digital gap.

E-Inclusion may have a significant impact on consumption, employment, new social models and the possible business models associated with them, including tourism.

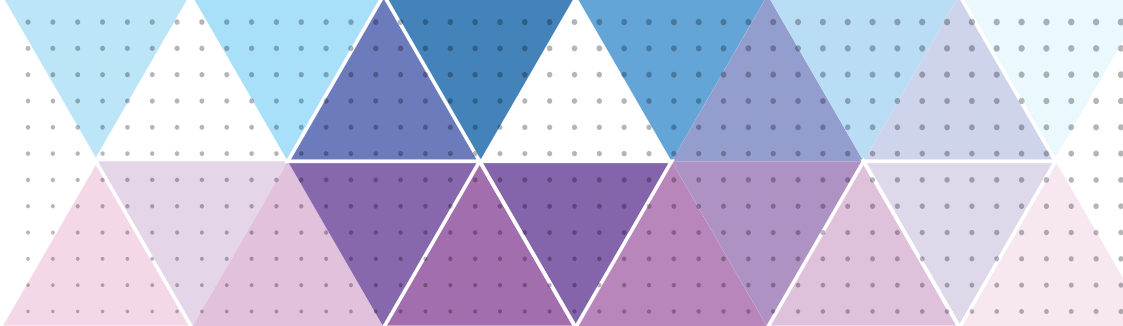
All products made (including through innovative visualization technologies, such as 3D and augmented reality) must always be made taking into account the usability requirements and the users' feedback in the realisation phase.

## **SYNERGIES AND COOPERATION**

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Making a site of cultural interest appealing to visitors and tourists inevitably implies the need to establish synergies with all relevant public and private stakeholders at the local, regional, national, and international levels:

- local administrations
- networks of museums, archives, libraries, theatres and auditoriums
- local associations and foundations
- research centres and universities, academic spin-offs
- Destination Management Organisations (DMO): tourist guides, tour operators, travel agencies, online services (such as TripAdvisor)



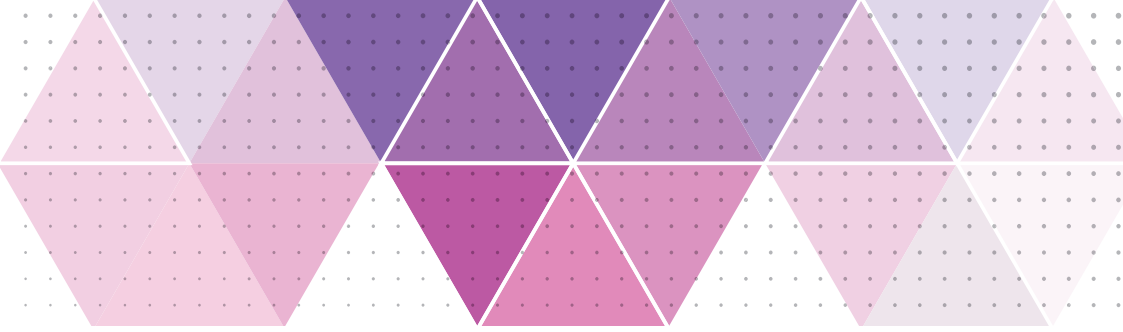
- the hospitality industry (hotels, restaurants, country houses, thermal baths...)
- movie industry, AV rights management companies
- national and local TV companies
- book shops, cultural merchandise, and food and wine shops
- publishers, artists, artisans, and others working in creative industries
- local and international transport networks (buses, trains, airlines, and ships)
- schools
- online communications experts, such as travel bloggers or administrators of online social communities<sup>21</sup>.

Cooperation between the various stakeholders in the tourism chain must be encouraged to improve local tourism services through the potential provided by digital technology.

Cooperation can foster new business models with economic benefits for all stakeholders in the tourism chain, including both public and private ones.

These new models should take into account the potential offered by:

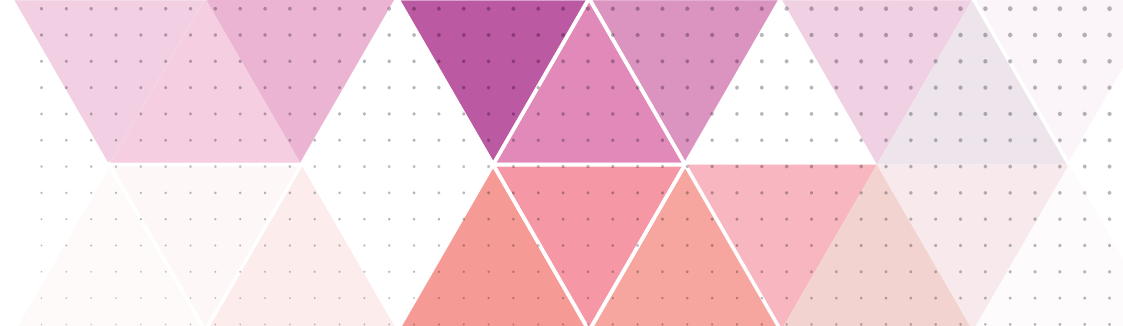
- an integrated tourism offer, such as:
  - all-inclusive ticket services (through which tourists and visitors can access multiple sites and/or events and/or purchase additional services such as audio guides, apps for mobile devices, or guided visits with a single ticket).



Digital applications which may not be purchased if sold separately would be more likely to be used and further developed if part of an all-inclusive package

- a single online service that supplies all access information for existing services, independently from the provider
- public-private partnerships to produce mutually beneficial digital products of high impact in the tourism sector
- development of new job types (e.g. digital artisans) and new productive activities (e.g. FabLab, 3D printers) operating both within and outside cultural institutions
- synergies with Europeana to estimate the impact of digital cultural heritage available online on tourism, starting from use cases and statistics on the use and reuse of the resources.





## **ANALYSIS OF USER NEEDS AND SATISFACTION**

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Institutions and creative industries should avail themselves of tools to evaluate the needs of users and tourists.

In addition to the traditional questionnaires, the IT tools loaned/provided to tourists make it possible to collect data on their behaviour at tourist sites (itineraries, languages chosen, time spent watching a given work of art) without violating their privacy.

The analysis of user needs:

- allows institutions to better organize their collections and exhibits to reflect visitors' preferences
- provides inspiration to companies to create new services to expand their commercial offer.

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- 1 <http://www.gazzettaufficiale.it/eli/id/2014/07/30/14G00121/sg>
  - 2 [http://www.consilium.europa.eu/uedocs/cms\\_data/docs/pressdata/en/educ/142705.pdf](http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/educ/142705.pdf)
  - 3 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:175:0001:0008:IT:PDF>
  - 4 [http://www.gazzettaufficiale.it/atto/serie\\_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2012-12-18&atto.codiceRedazionale=12A13277](http://www.gazzettaufficiale.it/atto/serie_generale/caricaDettaglioAtto/originario?atto.dataPubblicazioneGazzetta=2012-12-18&atto.codiceRedazionale=12A13277)
  - 5 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:283:0039:0045:EN:PDF>
  - 6 <http://eur-lex.europa.eu/legal-content/IT/ALL/?uri=CELEX:52010DC0245>
  - 7 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0352:FIN:EN:PDF>
  - 8 <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2007-0575+0+DOC+XML+V0//EN>
  - 9 <http://www.minervaeurope.org/structure/nrg/documents/charteparma031119final.htm>
  - 10 Geolocation can refer to various aspects: the object itself (such as a monument within an archaeological site) its container (such as the museum that contains the object) the content of an object (such as information contained in an archived document).
  - 11 See for example projects by the National Maritime Museum and the Royal Observatory in Greenwich, which requested contributions from volunteers to take part in citizen science projects to transcribe documents and recognize details in photographic collections.
  - 12 One such example is the Europeana 1914-1918 initiative, [www.europeana1914-1918.eu](http://www.europeana1914-1918.eu), whose contents are provided entirely by citizens and web users.
  - 13 Such as the international initiative Wiki Loves Monuments, [www.wikilovesmonuments.org](http://www.wikilovesmonuments.org), now active in Italy as well.
  - 14 Clarifying examples:
    - Personal use: preparing a travel itinerary, using an image as a desktop background
    - Academic use: preparing study material for students before a museum visit
    - Commercial use:
      - a company develops a new app based on cultural content
      - a designer develops a new product based on a cultural object (for example wallpaper patterned after the Villa of Livia
      - a restaurant hangs a replica of a work of art on its walls.
  - 15 According to the Growth Decree 2.0, <http://www.altalex.com/index.php?idnot=59517>, in particular art. 9, the so-called “Open by default” criterion.
  - 16 One such best practice is the RijksStudio initiative launched by the Rijksmuseum in Amsterdam, which makes works of art available and downloadable at extremely high resolutions, and reserves itself the right to negotiate specific licenses in case of the re-use of cultural resources for commercial purposes: <https://www.rijksmuseum.nl/en/rijksstudio>.
  - 17 An example in the tourism field is the Viaggiart initiative, <http://www.viaggiart.com/>.
  - 18 Acronym of Destination Marketing Organisation and Destination Management Organisation.
  - 19 Digital storytelling: narration technique using digital means.
  - 20 Transmedia storytelling: narration technique that makes it possible to tell stories using various means in different locations, such as one segment via computer, another in a museum, one through a film, and another through multimedia installations.
  - 21 Such as the *Invasioni digitali* initiative, [www.invasionidigitali.it](http://www.invasionidigitali.it).