Transforming the world with culture:

Next steps on increasing the use of digital cultural heritage in research, education, tourism and the creative industries

Authors: MSEG members, experts from sectors and policy-makers in tourism, education, research and the creative industries • *Editor*: Beth Daley

Table of Contents

Transforming the world with culture

Our next steps on increasing the use of digital cultural heritage in research, education, tourism and the creative industries

Europeana's strategy for the next five years. Graphic design by www.sin.nl, including pictures from the Rijksmuseum (Stonehenge; PDM), the National Library of France (graceful rider on an elephant at the zoo; PDM) and the University of Edinburgh (David Gregory's lecture notes; CC-BY).

Europeana has a vision – to open up Europe's cultural heritage, harnessing technology to help people learn, make new things and pass them on. We believe culture can change society for the better, bringing about both social and economic change. By making it easier for people to find and share our shared European culture, we can help researchers uncover more. We can inspire learners everywhere to think more. We can encourage tourists to explore and discover more. We can help creative professionals to develop ever more sophisticated and enticing products and services.

We believe that the digital cultural heritage available via Europeana can make Europe an even better place to live, learn, work or visit. That's why, under the recent Presidencies of the Council

of the European Union, experts, member state and EU policy-makers[1] came together to forge a path and create recommendations for the use of our digital cultural heritage in four sectors – research, education and learning, tourism and the creative industries. As experts and policy-makers our next step is to use our influence in the take-up of these recommendations.

Having completed the series of Presidencies meetings, it is both important and useful to bring together the themes that occurred time and again, and in particular to emphasize the main point made across all discussions that improving data quality is key to ensuring wider re-use of our digital cultural heritage.

The publication of this paper comes at an important and exciting moment for Europe's cultural sector. The European Parliament has recently adopted a report recognizing the importance of the cultural heritage sector as a strategic resource for smart, sustainable and inclusive growth, and recommending a dedicated European Cultural Heritage Year.

What's more, Horizon 2020, an EU research and innovation programme, has dedicated 100m euros to research related to cultural heritage. At the same time, both the European Parliament and the European Commission have announced their intentions to encourage the use of digital tools in education and tourism.

We will continue to work together with our counterparts from research, tourism, the creative industries and education to use our knowledge, experience and influence to support and find funding for the cultural institutions to begin or to continue in their digitization, aggregation and enrichment efforts, and to raise awareness on the importance of improving the quality and openness of this material for its proper use in these sectors with the new technologies.

Is cultural heritage really that important?

Yes, cultural heritage is vital. The literary, artistic and scientific creations that are rooted in human experience and tell the story of what it is to live in a place at a point in time not only leave an enduring legacy for future generations but help form the identities of people today, connecting those within families, communities, countries, continents.

The EU searches for 'unity in diversity', and we believe that the ability to create and share cultural heritage promotes that ethic. Europe, its people and its cultures, are diverse, and they can come together through sharing and engaging with aspects of their cultural heritage. In the digital age, there is now even greater opportunity for everyone everywhere to engage with their own and others' heritage. Europeana aims to build on Europe's rich heritage and make it easier for people to use, whether for work, for learning or just for fun.

Europeana has identified four broad areas in which we believe digital cultural heritage material can play a valuable role and in which we would like to promote and enable the use of appropriate cultural heritage material. Those areas are research, education, tourism and the creative industries. We'll call these our 'target sectors'.

Access to cultural heritage is part and parcel of the work of researchers, particularly those in the humanities. Having access to *digital* cultural heritage means new ways of accessing that

---

[1] See appendix for full breakdown.

material, the ability to create new links, to find new ways forward. It could lead to whole new strands of research, new conversations, new theories, new ways of thinking about our past and how that past affects our present and future. Cultural heritage is vital for research.

Likewise, being able to explore and learn about Europe's cultural sites, personalities and artistic works online opens up the world and the inquisitive minds of all kinds of students and learners. Using digital cultural heritage, learners can be inspired, discovering new areas of interest which could take their passions and indeed their lives in new and previously unthought of directions. Educators can use cultural heritage to build new ways for people to learn and discover. To create new material for lessons or self-discovery. Cultural heritage is essential for education and learning.

Culture is at the heart of tourism. Indeed, much tourism is built on culture – historical sites, interesting architecture, cultural centres like the West End for theatre, or Cannes for film. Linking people (tourists) to the culture around them enhances their experience of a place or an area. And with tourism apps and services, they can immerse themselves in culture before their visit, increase their engagement with it during, and share, review or maintain their experience after the visit. And the more people are engaged with the culture of an area, the more they will visit it, staying overnight, bringing friends and family. And that's what the tourism industry is all about. So cultural heritage is crucial for tourism.

Creative professionals can, of course, create completely new and original works, but they will always be inspired by what has gone before. By giving them access to high-quality digital representations of cultural heritage material, creatives can use the past to create something new for the present. They can mix things that it has never before been possible to mix – the number of combinations and potential designs, products and services is infinite. Easy access to a completely free, high-quality, ready-to-use resource like Europeana can make the difference between a business flying and a business failing. Cultural heritage is integral to the creative industries.

Research, education, tourism and the creative industries need digital cultural heritage material that is fit for re-use to develop and contribute to our society and economy in a positive way.

Without the hard work and commitment of Europeana's data partners (galleries, libraries, museums, archives and their aggregators), our vision can't be realized. Cultural heritage re-use in education, research, tourism and the creative industries is in turn of great value to the cultural heritage institutions. Having their collections used by professionals in our target sectors benefits cultural heritage providers by raising awareness and use of their collections, and increasing web traffic and potentially footfall to their physical venues. It also contributes to their own missions of engaging with and extending their audiences.

Whilst this paper does not directly address cultural heritage providers as a target group, Member States are encouraged to be supportive of them, as their contribution is core to our ability to implement any of the recommendations.

Two challenges to our vision

Together with policy-makers and experts in each sector, we've developed recommendations – steps we want to see taken at EU, country and institutional levels to encourage widespread use of digital cultural heritage in our target sectors.

But before we can proceed with sector-specific recommendations, we first need to address two crucial points that reared their heads time and again throughout our discussions and indeed made us pause in our efforts to produce recommendations for the creative industries.[2]

The first – for our cultural heritage to be used in any of these sectors it must be of a ***quality that is fit for re-use***. That means the digital version of a text, painting, artefact, video or sound recording is of the highest resolution or quality possible. Low quality, small, or incomplete objects with little or poor descriptive metadata are simply not suitable to be re-used in the target sectors. Similarly, high-quality, well-described objects with limiting or prescriptive licensing conditions are no good. To be fit for re-use, a digitized object must be of high quality and decent size, with good quality descriptive metadata and licensing conditions that allow for re-use.[3]

Example of a high-resolution, openly licensed image: detail of a 13th-century parchment Breviary
(F.m.III.38, National Library of Finland; PDM)

---

[2] Another challenge to our work with creative industries is the plurality of the sector – who exactly do we address when we talk of 'creative industries'? This is something we will continue to explore with our partners.
[3] Fit-for-re-use material is material that is out of copyright (public domain marked or CC0), or licensed in a way that allows re-use without restrictions (CC BY and CC BY-SA). For some purposes such as re-use in research a CC BY-SA-NC can work.

Cultural heritage institutions must be supported. We must work together to raise awareness of the importance of data quality and help institutions to recognize and explore the potential of digital output and to provide data that is fit for re-use. This is what any application of digital cultural heritage in education, tourism, research or the creative industries is built on. Without it, our vision simply cannot be realized. Our new 'Europeana Publishing Framework', to be launched later this year, will be a valuable tool in this endeavour. It sets out how the different levels of data quality that cultural heritage organisations and aggregators can provide determine what publication channels Europeana can use, showing clearly the benefits to them, to Europeana and to our audience of browsers, sharers and re-users, of providing higher quality digital content and metadata.

The Europeana Publishing Framework. Visual: Elco van Staveneren, www.denkschets.nl, CC BY-SA.

The second – if digital cultural heritage is to be used to effect social and economic change across Europe, **continued and sustainable funding is vital**. Not just for Europeana, but for digitization and aggregation programmes throughout Europe, as well as other related work such as data enrichment activities. We must support and sustain our target sectors, helping

them to contribute to a growing and healthy economy, not just today, or this year, or this decade, but for good. To feed them, we need to be sustainable ourselves.

Like the work they support, the funding streams we take advantage of can be many, creative and diverse. This could be anything from ministry funding and grants, to crowdfunding, use of business angels and venture capitalists and developing commercial arms of cultural institutions. Let's think big. Let's be open-minded and look for opportunities everywhere. This is important and it's something we need you, as policy-makers and influencers, to help us with.

At the moment, Europe leads the world in digital cultural heritage programmes. Europeana's data model, licensing framework and infrastructure are already being re-used across the globe, making cultural heritage databases around the world interoperable. This is something for Europe to be proud of, and to support.

Help us realize this vision

We invite policy-makers from culture, research, tourism, creative industries and education to increase the recognition of the importance of digital cultural heritage in our society and to aid its practical use.

Over the next two EU Council Presidencies in Luxembourg and The Netherlands, we need to put your recommendations into practice, ensuring that your member state is part of our vision and contributes to and benefits from its success. We will discuss with you what the Europeana Network and the Member States Expert Group can do to ensure that cultural heritage institutions deliver high-quality data to Europeana.
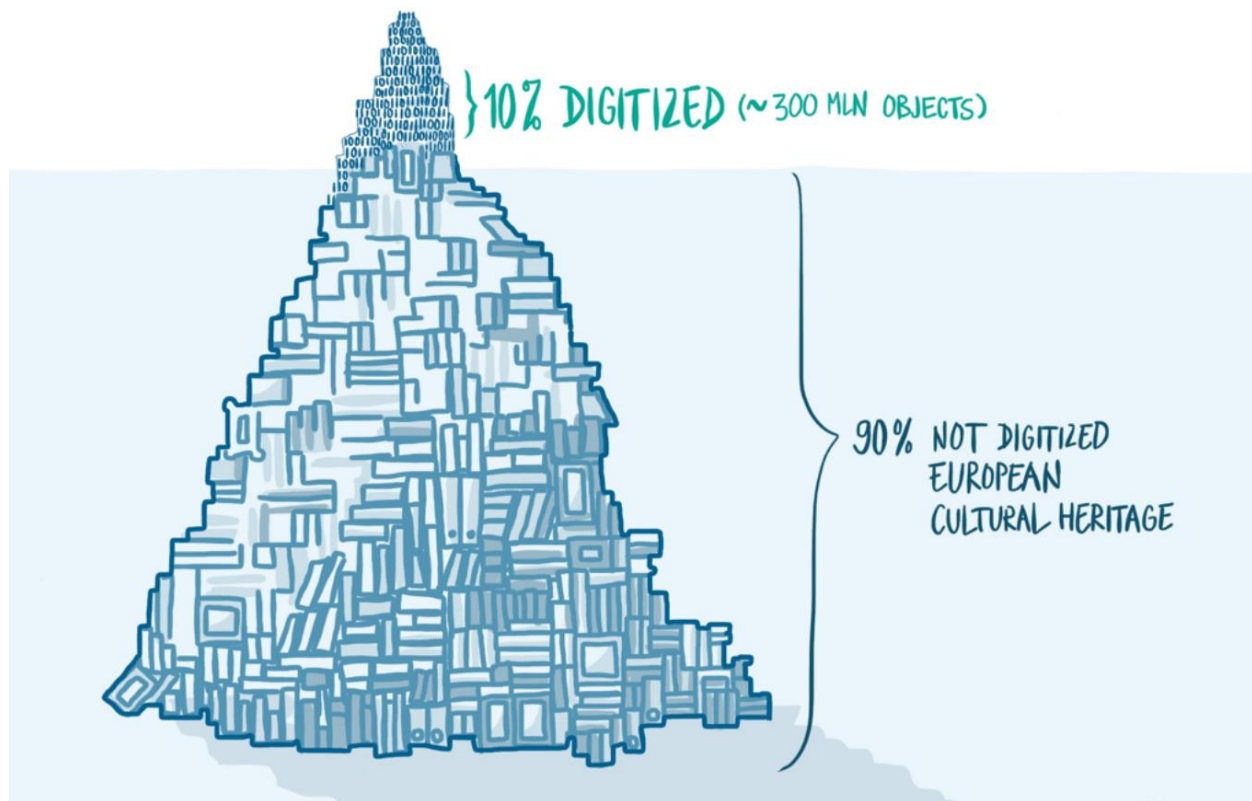
If you're already working on this, please share your findings with us. If this is new to your agenda, please support us. See the 'Next Steps' section for more information on what you can do to help.

The recommendations

Each sector-specific discussion yielded its own set of recommendations (as outlined below). However, there are several common themes that apply to them all.

Above all, all sectors agreed on the two challenges outlined above:

- The digital cultural heritage made available to these sectors needs to be high-quality with good descriptive metadata and appropriate licences to allow it to be re-used.

- More funding is needed to digitize and maintain Europe's cultural collections to ensure that they can be re-used for many years to come and that the digital cultural heritage ecosystem is sustained long-term.

90% of our heritage has not yet been digitized. This digitally available 10% represents 300 million objects, only one third of which (34%) is currently available online, with barely 3% of that works suitable for real creative re-use. Visual: Elco van Staveneren, www.denkschets.nl, CC BY-SA.

All sectors agree on the following recommendations:

- More of the cultural heritage held in Europe's museums, galleries and archives needs to be digitized, especially 20th and 21st century material.

- More cultural heritage institutions should be encouraged to open up their digital collections for re-use.

- Quality should be seen as a priority when digitizing cultural heritage objects – creating high-quality reproductions with detailed and descriptive accompanying metadata.

- High-quality, rights-cleared cultural heritage content should be easy to access and easy to use.

- Awareness of the existence and benefits of the cultural collections available via Europeana should be raised within the target sectors.

- Strong ties between Europeana and the target sectors, and cultural heritage institutions and the target sectors, need to be developed and nurtured.

- Case studies demonstrating the benefit of using high-quality rights-cleared cultural heritage content should be used to encourage participation by cultural heritage institutions and organisations within the target sector.

1. Tourism

'MSEG should endorse a shared vision to support the digitization of cultural heritage as a strategic aspect of tourism promotion. Members should 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. Members should stimulate collaboration among all the stakeholders in the tourism chain to activate synergies that will be beneficial to all: cultural institutions, Europeana and the aggregators, private bodies, creative industries and tourists. Thanks to Europeana, in recent years cultural institutions have raised their standards of interoperability and metadata quality, releasing records that are even more searchable and freely re-usable.'

Marzia Piccininno, EU project manager, Michael Culture Association, Italy

Our vision is to increase the use of Europeana-enabled cultural heritage content through its systematic implementation in niche and participative tourism. In order to be successful in this market, we must recognize that the tourism industry has its own aims, challenges and rules. We need to incorporate Europeana's offering into the existing tourism ecosystem.

'In short, we need to create demand for Europeana in the tourism sector and ensure that cultural organisations can feed in with high-quality content. We need to shout about our benefits and best practices and build solid and productive relationships between cultural institutions and the tourism industry. The recommendations outline ways that policy-makers and cultural institutions can begin to do this.'

Jill Cousins, Executive Director, Europeana Foundation

With sustainable funding and a database of high-quality re-usable material assured, we can move on to implement the following recommendations:

- To create demand within the tourism sector for the Europeana-enabled content of the cultural heritage organisations.
- To promote a high-quality supply of Europeana-enabled content from the cultural heritage organisations for re-use.
- To better articulate the value of linking supply with demand through case studies and best practice examples.

- To establish and build on the relationship between cultural institutions and tourism bodies.
- To encourage the development of mobile applications at local, regional, national and European levels.
- To encourage tourism and cultural policy-makers to cross-promote the funding programmes and activities for the development of cultural heritage tourism that are available both nationally and from Europe.
- To highlight the value of digital cultural heritage content as an asset in the promotion of niche destination marketing, addressing tourism sector challenges of seasonality and locality.
- To make smart use of existing online channels and platforms (e.g. Tripadvisor, Wikimedia, Flickr, Pinterest).

Read the full set of recommendations for tourism

What does a world with digital cultural heritage in tourism look like?

Several tourism apps and services using digital cultural heritage via Europeana are already available. The Europeana Beacon (eBe) iOS app is a new way of thinking about tourist guides. The app determines the user's position in a town square, museum room or exhibition, always displaying the correct information about the work of art they're facing. Tourists can discover new facts, engage in fun puzzles and quizzes to explore their surroundings, while museum curators or the local tourism bureau gain a deeper insight about what people really visited.
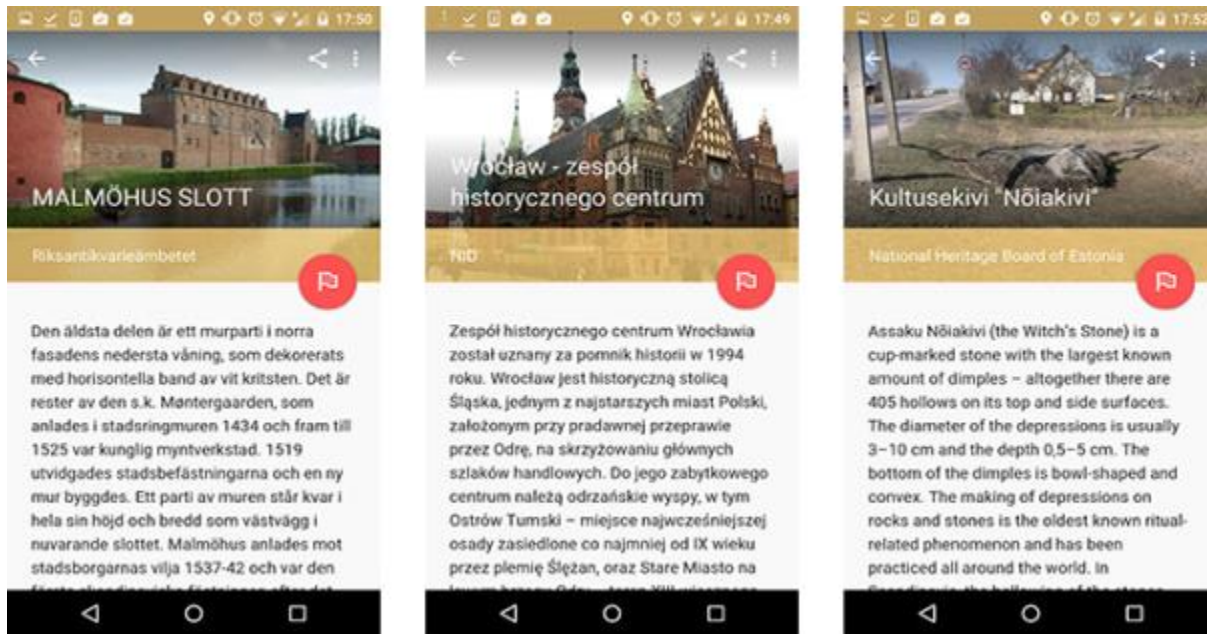

Europeana Beacon was the winner of the Apps for Europe award at Hack4Pisa, October 2014. Europeana Beacon, CC BY-SA.

TuoMuseo.it is an app for the whole visitor experience – from pre-visit online planning and discovery, to on-site experiences and then post-visit personal storytelling. Digitized points of interest and real-world exhibits are brought together through gamification, allowing cities and museum managers to guide and analyse visitor flow in real time. Missions, quizzes, badges, points, rankings, awards and a newsfeed encourage positive tourist behaviour, driving people to discover places in new ways.

Screenshot from www.Tuomuseo.it, (c) 2015 TuoMuseo.

The Field Trip app includes curated Europeana content to do with archaeological sites, historical buildings and monuments. This mobile app recognizes where people are and allows them to explore and discover more about their surroundings. The app has been developed by Google Niantic Labs and is available for iOS, Android and Google Glass in more than 30 languages. For this pilot, we are working with the Swedish National Heritage Board, National Heritage Board of Estonia, National Heritage Board of Poland and Austrian National Library.

Taster of partners' datasets in the Field Trip app

[VanGoYourself](#) encourages everyone to have fun recreating historical artworks and then share them online. Above all, the tourism sector seeks to provide its customers with great experiences in order to get them to return to a destination or to tell friends and family about it in a positive way. VanGoYourself can help to provide this experience.

The birth of VanGoYourself. The Europeana Creative team having supper in Mons. Licence of this image: CC BY-SA. Licence of original image: Fondazione Federico Zeri - Università di Bologna, Public Domain Marked.

2. Research

'Researchers increasingly use advanced IT tools and techniques such as text and data mining and visualization techniques, co-working with remote teams over the web. Through crowdsourcing they can ask new questions and make discoveries and connections among large collections of digital material that would have been impossible to make through traditional research. In this context, researchers in the humanities in particular, need access to high-quality cultural content that is delivered in open and standardized formats, and in ways that can be embedded in their own systems and workflows via, for example, specialized APIs. Availability of content that can meet the above criteria seriously lags behind technical developments though and so it is necessary to make the case for it at the highest strategic level.'

Georgia Angelaki, Communications Specialist, National Documentation Center (EKT), Hellenic Research Foundation

Advances in information and communication technologies mean that research has become digital at every stage of the process and that researchers increasingly rely on online resources and tools to gain instant access to data, publications and content. There is an urgent need that the rich content of our public cultural heritage organisations becomes openly available for this purpose.

Trusted re-usable digitized cultural heritage data and content don't proliferate online to the same degree as data from the science, technology and medicine disciplines, due to IPR barriers, lack of standardization and the existence of fragmented initiatives in the field. In addition, the value of our digital cultural heritage has not been emphasized enough by relevant actors such as cultural heritage institutions and culture policy-makers.

Providing the metadata and content for cultural heritage objects in a way that supports the use of tools such as text and data mining opens up that data and increases research possibilities. The potential for further re-use also increases as it can then be used as a basis for others to build services on, in primary and secondary education for instance.

With sustainable funding and a proliferation of high-quality re-usable material in place, we recommend that policy-makers in the culture and research sector:

- Work together at national and European levels to coordinate policies, strategies and practices that support the greatest possible openness, access to and re-use of Europe's digital cultural heritage.

- Collaborate at national and European levels, using Europeana where possible, to meet the increasing demand for digitized cultural content for research.

- Develop policies and agree instruments at EU level that enable and promote synergies among initiatives and e-infrastructures of similar scope to capitalize on investments
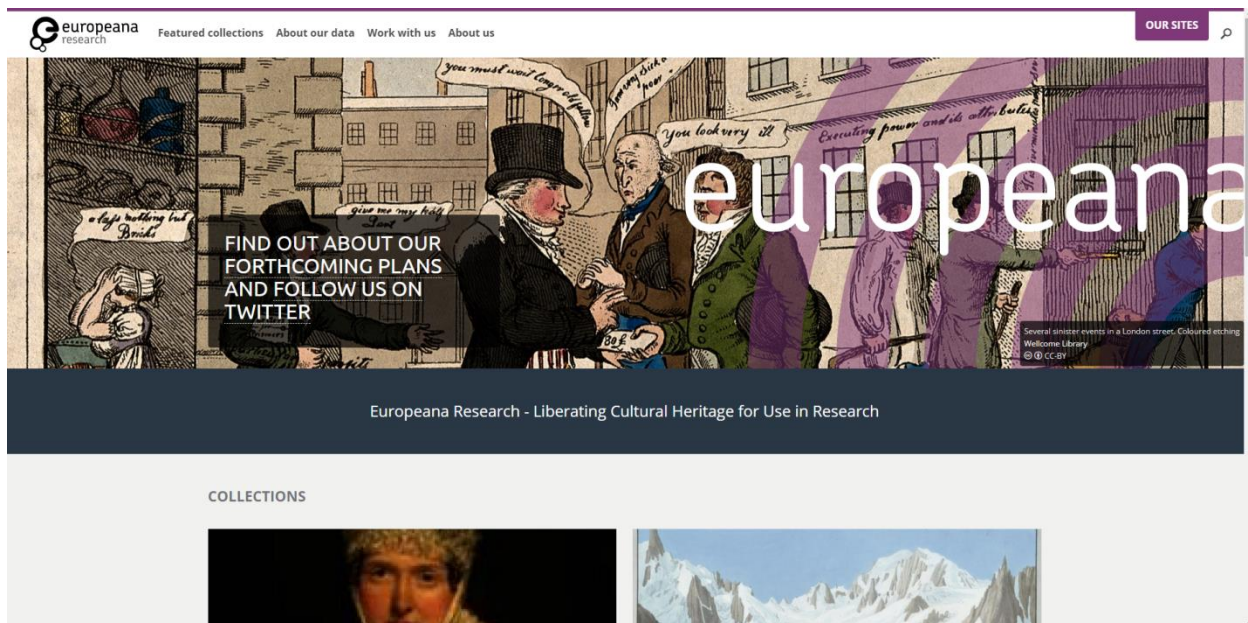
already committed for the promotion of research and digital culture, and support the European dialogue of relevant stakeholders.

● Develop the specific legal measures needed to allow for text and data mining.

Read the full set of recommendations for research

What does a world with digital cultural heritage in research look like?

Europeana Research aims to liberate cultural heritage for use in research so that issues of licensing, interoperability and access no longer impede its use. It will build focused aggregations of content, particularly full-text, allowing research teams and infrastructures to create specific tools and services to explore them. With Europeana Research, it'll be possible to link disparate collections and tools in different institutions and manage workflows between them. It not only links researchers to heritage material, but researchers to researchers, and material in one collection to material in another.

The new Europeana Research website

A good example of full-text material being made available for use by researchers is Europeana Newspapers. Several million pages of newspaper text and images have been made available through the project and a new 'viewer' built to make it easier to search and copy text, and to explore related documents.

The Europeana Newspapers viewer showing 'Het Nieuws van den Dag', The National Library of the Netherlands, Public Domain Marked.

Other ways digital cultural heritage plays a beneficial role in research are highlighted in 'Inspiring Research, Inspiring Scholarship' from JISC in the UK. Examples include: Old Bailey Online – a database of nearly 200,000 criminal trials; the Archimedes Palimpsest – working collaboratively scientists and textual scholars from across the world produced a readable version of Archimedes' text shedding new light on the history of mathematics; and Early English Books Online, which has transformed research into early English literature.

3. Education and Learning

'Explaining the kind of content accessible through Europeana and its possibilities for use and re-use of content, inspiring educators and learners, must be a priority for Ministries of Education across Europe and the European Union itself. It is necessary to compare new business models for commercial players, memory institutes and museums to the expectations of educators, and particularly their requirement for free, high-quality and open resources with cleared copyright for use and re-use.

MSEG members should promote structured dialogue between policy-makers and stakeholders and consider dedicating better resources to help their member state's cultural heritage institutions to deliver high-quality content for education.'

Alain Thillay, Head of digital educational resources department, French Ministry of Education

Our recommendations concern all forms and levels of education and learning, from formal classroom teaching in schools and universities to adult education and informal learning in, for instance, the context of associations or at home.

The nature of learning is changing, and as it increasingly takes place outside of the traditional classroom, and the importance of digital learning grows, demand for engaging and reliable content is rising.

These recommendations aim to raise awareness of the availability of digital resources through Europeana and show their clear benefits for education and learners in Europe, while also providing information about proper use of the material, and encouraging the development and sharing of digital learning resources. There are, however, a number of challenges in bringing these benefits to the educational community. As learning becomes more digital, there must be greater Europe-wide dialogue about how we make and create our online resources to be fit for education and learning, and the access and re-use conditions that have to accompany them.

'The cultural heritage sector and the community of educators need to work together to open digital heritage collections for educational re-use. Too often copyright restrictions and limited access prevent those who make high-quality educational resources from using and sharing collections to do so.'

Steven Stegers, Deputy Director of EUROCLIO

With sustainable funding and a proliferation of high-quality re-usable material in place, we can:

- Set up a Europe-wide structured dialogue between policy-makers, cultural heritage institutions and educators to improve access and reduce duplication of effort.

- Prioritize the provision of 'Fit for Education and Learning' content by cultural heritage institutions and ministries.
- Emphasize the development of inclusive and accessible digital learning resources.
- Promote open licences and improve the access and re-use conditions that underpin education and learning.

Read the full set of recommendations for education and learning

What does a world with digital cultural heritage in education look like?

Aligning its content and services with the needs of teachers, students and the wider education sector would fulfil part of the vision for Europeana. With over 45 million records, Europeana has huge potential as a valued resource for learners at every stage of their education, and at pan-European level. Digital learning resources Historiana and Inventing Europe, and institutional sites such as the British Library's World War One website demonstrate the value of using digital cultural heritage collections.

The collections can be used in commercial services too. For example, Europeana material is now a resource in Apple's iTunes U app, which means that teachers can incorporate it into courses that learners access on their iPad. Europeana will publish its first Multi-Touch book and iTunes U course for use in classrooms in early October. The book and accompanying course are developed jointly with EUROCLIO and Gwen Vergouwen, an Apple Distinguished Educator (ADE) and Belgian history teacher as part of Apple's ADEs in Residence Programme. ADEs work with some of the world's leading museums, archives, science centres, and cultural organisations to develop innovative teaching and learning resources. Available in both Dutch and English, the book and course introduce students and history enthusiasts to different interpretations of what caused the First World War.

Sneak preview of the Multi-Touch book in English and Dutch

'Through using unique primary sources from Europeana and EUROCLIO, our new Multi-Touch Book on the First World War enhances students' historical thinking, and nourishes their needs as digitally native learners.'

Gwen Vergouwen, Apple Distinguished Educator, historian and educational transformation coach

Historiana is a 'portal to the past' – an online educational multimedia tool that offers students multi-perspective, cross-border and comparative historical sources to supplement their national history textbooks. As part of the Europeana Creative project, Europeana's First World War collections have been used in Historiana to create a history education resource for teachers. Educators can use tools to make learning activities based on this important material.

Example of material held by Europeana ((c) Imperial War Museum) being re-used for educational purposes at www.Historiana.eu.

Inventing Europe is a collaboration between historians and cultural heritage institutions throughout Europe. The goal of the website is to cross borders and explore the history, culture and formation of Europe through the lens of technological objects and images. Inventing Europe uses the Europeana API to bring in Europeana's cultural and scientific heritage. In addition to direct feeds from partner websites, the Europeana feed turns the rich narrative environment of Inventing Europe into a portal for further exploration of objects across Europe. Consequently, the visitors of Inventing Europe can explore hundreds of extra relevant objects and images.

Screenshot from http://www.inventingeurope.eu/

The British Library led the UK's contribution to <u>Europeana 1914-1918</u>, as part of the First World War Centenary programme. As part of this work, they created a brand-new <u>British Library First World War</u> website with over 500 items from across Europe as well as articles by leading experts and teachers' notes.

Screenshot from <u>http://www.bl.uk/world-war-one</u>, British Library, CC BY-SA.

4. Creative Industries

> 'Europeana is unique in compiling data and imagery of this quality and breadth, making it an important resource both from a heritage standpoint and for creative industries to have access to the best and most relevant imagery showcasing Europe's unique cultural endeavours, with as yet unforeseen economic benefits for both the partner institutions and the wider creative industries.'
>
> *Ezra Konvitz, Co-Founder of ArtStack*

The last of our four discussions focused on how digital cultural heritage can be used in the creative industries. Despite being a very different sector to those already discussed, and one that is hugely diverse in itself, including as it does, artists, architecture practices, musicians and designers to name just a few, the same conclusions were drawn – that high-quality, rights-cleared material and a Europeana with a long-term and sustainable future are imperative. High quality, re-usable data is of such importance to the creative industries that more efforts and investments are needed in order to realize our vision and increase re-use of digital cultural heritage in this industry.

> 'Creative industries have been already widely accepted to have an important role to play in innovating European society and economy. Creative industries build on growth and jobs as well as solving critical challenges that Europe is facing in the years to come. However, much less attention has been paid to the source for the quality content in order to allow creative industries to flourish. Europe's vast cultural heritage offers great opportunities for the creative professionals and Europeana's role to allow the access to the heritage should not be underestimated.'
>
> *Ragnar Siil, Managing Partner of Creativity Lab, Estonia*

For designers to create commercial products, developers to build apps or digital services, or artists to mash-up videos, sounds, text and artworks into new forms, they need high-quality materials to work with. Europeana can provide that with the help of policy-makers and cultural institutions.

But another challenge then needs to be addressed. At present, Europeana is not known as a source of high-quality materials and technology in this sector. Complicating this further is the diversity of business included in the term 'creative industries', which makes finding the right messaging and support structures to reach them more challenging. Policy-makers and Ministries of Culture can help us to form the necessary relationships and communication routes with the creative businesses in their member states so that they know our high-quality digital cultural material is available for use.

While we are not producing formal recommendations for the creative industries at this time, it is worth noting that the discussions followed much the same path as those in research, education and tourism, namely that it is important to do the following:

- Encourage cultural heritage institutions to deliver content fit for creative re-use, of good quality under an open rights statement.

- Create easy access to high-quality cultural heritage content for creative re-use.

- Take action to remove (economic and legal) limitations for creating a digital ecosystem, and to facilitate the creative industries, cultural heritage institutions, Europeana and policy-makers to realize a digital ecosystem for re-using and sharing cultural heritage.

- Find ways to create funds for digitization of cultural heritage materials so that they may be re-used in creative industries.

- Raise awareness among the creative industries of the availability of high-quality digital resources, by, amongst other means, building Europeana potential into the creative curricula of universities and launching training programmes for encouraging the use of Europeana's digital content.

- Work with culture policy-makers and Europeana to better define and communicate the needs of creative industries sector regarding digitized cultural heritage.

- Work with existing incubators, accelerators, investors and start-up programmes across Europe to initiate calls for sustainable business models and creative products/services using the potential of European digital heritage.

- Bring together creative and IT professionals to stimulate the use of technology in the creative sector, provide advice on management issues, such as the set-up of hubs, clusters, incubators, as well as support of tools.

What does a world with digital cultural heritage in the creative industries look like?

Through the Europeana Creative project, software developers and creatives, as well as designers, artists and entrepreneurs, were invited to submit innovative business ideas and concepts for apps, games or even products that use digital cultural heritage available through Europeana. The best ideas in a range of themes received a tailor-made business support package. Pilot apps and services were also developed by project partners to demonstrate what is possible.
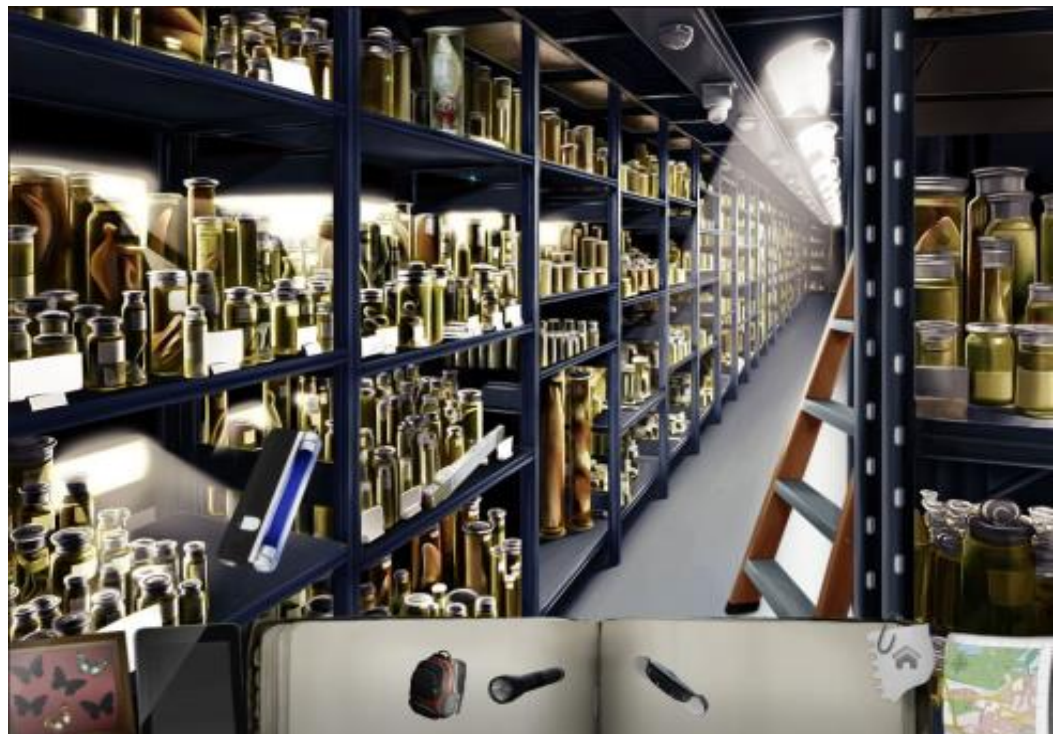
Challenge winners included: Trimaps – a web-based tool to enable geolocation on historical maps in Europeana; Timepatch – a crowdsourced and socially validated app for organising historic photographs either geographically or otherwise, and for collecting present-day photographs; and Zeitfenster, an app that allows users to time travel through cities, places and events and experience different times and topics at their original locations.

From http://www.zeitfenster-app.de/, (c) 2014 Zeitfenster GbR

Pilots included 'The Secret Legacy', a serious adventure museum game set in a museum and 'Memory Match', a memory game for children using fossils and minerals. As well as a service that allows history educators to create learning activities online using Europeana content, via the Historiana platform, and 'Sound Connections', which enables people to enrich sets of sounds on the themes of aviation, city soundscapes and birdlife.

Screenshot from The Secret Legacy made by Exocet Games, (image CC BY-ND Europeana Creative), http:/labs.euro peana.eu/apps /secretlegacy/

Collections from Europeana can be used in the same way that the Rijksmuseum and British Library Labs encourages the general public and professional organisations to use their high-resolution material to, for example, create mobile phone covers, clothing, handbags or wallpaper. These can be one-offs for an individual's use or could be used to develop a product line for a creative business (see for example the range of products based on Rijksmuseum collections made by designers on Etsy).

Tovicorrie

This Leather Clutch bag features , buttery soft calf skin leather, soft scarlet red suede lining and a single compartment to fit everything you need.

Inspired by: Five Javanese court officials

Oelwein - Toecan

A fine art print.

Inspired by: White-throated Toucan

Examples of cultural heritage inspired commercial products, from the Rijksmuseum and Etsy. See more at *https://www.rijksmuseum.nl/en/rijksstudio/131860--rijksstudio-en-etsy/creations.*

Our vision to connect creative industries with digital cultural heritage also extends to creating a community amongst these individuals and organisations. The Europeana Labs website has been designed as a playground for creatives and a space for inspiration, innovation and sharing. It supports anyone developing ideas and prototypes into sustainable products, by providing access to datasets and APIs, business development expertise, relevant professional networks and (indirectly) finance.

There are also other labs, online and real world, which creative professionals can use to work with Europeana and other digital resources. As well as the British Library and Rijkstudio examples, others include the Wellcome Collection, Aarhus' Innovation Lab in Denmark, Aalto Fab Lab in Helsinki, the Future Classroom Lab in Brussels and Platoniq in Palma.

The new homepage of Europeana Labs

5. Next steps

Research, education, tourism and the creative industries need fit for re-use digital cultural heritage material to support their development and contribution to our society and economy. That means they need Europeana. And Europeana needs financial and political support.

Under the forthcoming Presidencies, we will work together to give these four sectors – which between them touch every European citizen and visitor – our support and resources, to enhance their current and future activities.

What Europeana is doing

Europeana's Strategy for 2015-2020 and our first yearly Business Plan for its execution both have data quality at their very core. 'Improve data quality' is Priority #1 in the Strategy:

> 'We will develop an infrastructure that allows the surfacing of higher quality material with more open licensing conditions to service end-users and creatives better, resulting in corresponding higher returns for the contributing partners.'

This is echoed in the Business Plan for 2015 (p. 8):

> 'The improvement of data quality – with a strong focus on accessibility, accuracy, consistency and re-usability of metadata and content – is key to fuelling the creative industries, reaching our audiences, and returning as much value as possible to the memory institutions opening up their data.'

So, improving data quality is present in our every thought and action. Below are some of the more specific ways we're helping institutions to provide high-quality data.

Initiatives encouraging institutions to deliver high-quality data:

→ Developing and disseminating the new Europeana Publishing Framework (launching later this year) and Europeana Publishing Guide. These documents provide a very clear picture of the various ways in which a cultural institution can contribute to Europeana, showing the benefits to the institution, audiences and wider sectors of providing high-quality data.

→ The Europeana Publishing Framework will detail how institutions can work with Europeana to improve visibility of their material. Given the right quality data, visibility can be raised through: showcasing the material on the Europeana website (new version to be launched early 2016) and new thematic Channels; the Europeana 280 art campaign and virtual exhibition; inclusion in showcases on our dedicated research and re-use websites - Europeana Research and Europeana Labs; marketing focusing on high-

quality and openly licensed content; experiments with crowdsourcing campaigns to enhance metadata; and collaborations with external partners such as DailyArt and Wikipedia.

→ Encouraging data providers and aggregators to enrich their data (e.g. with established vocabularies) and engage with existing sector standards (e.g. SPECTRUM, LIDO, CIDOC-CRM, CARARE, EBUcore).

→ A new <u>Statistics Dashboard</u>[4] gives organisations better feedback on how their data is being used so they can see the relation between providing better data and how it is used.

→ A series of case studies demonstrate the value of opening up collections, helping institutions to see the benefits. For example, see these case studies on the <u>Rijksmuseum</u>, the <u>Statens Museum for Kunst (SMK) in Copenhagen</u> and <u>Yellow Milkmaid Syndrome</u>.

Initiatives helping institutions to improve their data:

→ A brand new aggregation infrastructure is being implemented as part of the <u>Europeana Cloud project</u>. One of the results of this is a new workflow which will provide data providers with tools to improve data quality.

→ <u>Research and Development</u> and product development on topics such as multilingualism, linked data, semantic web, EDM improvements and crowdsourcing annotations, with the help of the <u>EuropeanaTech community</u>. The new <u>EuropeanaTech Insight</u> journal shares the work done by the Tech community.

→ <u>Continued advocacy</u> in Brussels on the topic of copyright/IPR. We will support cultural heritage institutions across Europe to create value from sharing their online collections as openly as possible, in line with copyright laws, policies or practices, by advocating standards in interoperability of data, rights and models. We will coordinate international efforts on advocacy and policy development on the interoperability of copyright. We will make sure that policy-based best practices are embedded within the Europeana Network Association.

→ Continued advice on <u>rights labelling</u>, following the success of our rights-labelling campaign, which resulted in over 99% of items in Europeana being given a rights statement so that audiences know if and how they can re-use them. Together with the DPLA, we are working on the joint development of standardized <u>international rights statements</u>.

→ The <u>Metadata Quality Task Force report</u> published recently outlines what high-quality metadata is, how to achieve it and what is holding institutions back from submitting it.

→ The <u>FLOSS inventory</u> is updated regularly, providing institutions with a list of free and open-source software relevant to the digital heritage domain.

---

[4] The Statistics Dashboard is under development. Its beta version will be released at the end of this year.

→ The <u>Content Re-use Task Force</u> aims to generate agreement on the licensing and technical standards of the <u>Europeana Publishing Framework</u> and their value to contributing partners. As such it is investigating what 'fit for purpose' means in the context of our target sectors.

→ The <u>Evaluation and Enrichments Task Force</u> aims to help participating projects enhance the data enrichment services they create or use.

Initiatives to promote and implement the recommendations in education, tourism, research and the creative industries:

→ The <u>Europeana for Education Task Force</u> will look at how to create an environment in which the use of digitized heritage in education is beneficial for the various stakeholders related to the Europeana Network Association.

→ Europeana and its Network Association are creating and executing strategic and operational plans for the penetration of the education and tourism sectors. We will create and nurture partnerships that promote the distribution and re-use of digital cultural heritage via education platforms and into niche cultural tourism. This includes the development of distribution mechanisms for the delivery of data to products such as Field Trip or Booking.com and joining Horizon 2020 or creative projects that deliver such market access.

→ We are approaching cross-border initiatives such as European Capital of Culture, Cultural Routes of Europe and Smart Cities to broaden the re-use potential of digital cultural heritage data in the context of tourism.

→ We are supporting the distribution strategy in education with stronger, pragmatic partnerships with education partners such as <u>EUROCLIO</u>, <u>Inventing Europe</u> and <u>European Schoolnet</u>, where our cultural heritage data is being curated for school audiences.

→ Using partnerships with crowdfunding platforms such as Platoniq's <u>GOTEO</u> we are experimenting with raising money for creative re-use of our material. VanGoYourself had a successful crowdfunding campaign early summer.

→ We are establishing <u>Europeana Labs</u> as a product and service for a targeted audience of cultural apps developers, designers, makers and entrepreneurs. Europeana Labs should be the de facto access point to digital cultural heritage for our target audiences.

→ We have established a <u>Europeana Research</u> prototype, under Europeana Cloud, directed at digital humanities research communities, with an editorial board of renowned academics in the digital humanities.

→ We are building on the partnerships in research with <u>DARIAH</u>, <u>CLARIN</u> and <u>The European Library (TEL)</u>.

Europeana will work with partners to set the agenda for the next Presidency meetings to find the best way to address the issues raised in this White Paper.

What you can do

If you are already working hard on the topics outlined in this White Paper, we thank you and are very keen to hear what you have been doing and what you have discovered.

Whether you're already raising awareness of data quality and looking for funding opportunities or whether this is new to your agenda, there are many things that you can do to help.

- Please take these recommendations to heart and bring them up in your ministries.
- Find out what stops or hinders their implementation in your member state.
- Make grants to organisations conditional on delivering more fit-for-purpose material.
- Make your cultural institutions aware of the importance of high-quality digitization.
- Make your education and creative industry ministries and businesses aware of Europeana.
- Develop case studies that are relevant to your own countries to support the arguments in this paper and to reassure and empower institutions that fear the consequences of 'giving away' high-quality data.
- Help to create funding opportunities for the kind of development we've outlined in this paper. And let us know what we need to do to help you with that.
- Talk to us about what you have done with the recommendations so far.
- Be creative. There are many other ways you could help us achieve our vision. Please do whatever you can and share your methods with us and each other.

We, the Europeana Network Association, and cultural institutions across Europe thank you for the time and effort spent on our cause. It is, after all, not just ours but everyone's.

Help us transform the world with culture.

For more information about Europeana Presidency meetings and to send us your feedback on this paper, please contact Ylva Klaassen: Ylva.Klaassen@Europeana.eu

For more information about Europeana's re-use activities, please contact Milena Popova: Milena.Popova@Europeana.eu

Appendix - The experts behind the recommendations

Tourism

In Greece and Italy, we worked with Culture24, Plurio.net, the National Documentation Centre of Greece (EKT), and policy-makers from ministries of tourism and culture across the EU as well as members of DG Enterprise and the European Tourism & Travel Advisory Group.

Research

Our research discussions in Greece brought together The National Documentation Centre of Greece (EKT), Culture24, researchers, and policy-makers in culture and research, with the support of the General Secretariat for Research and Technology.

Education and Learning

Working with European Schoolnet and EUROCLIO (European Association of History Educators) in Italy and Latvia, we gathered policy-makers and experts in education and learning from 21 different countries.

Creative Industries

Our creative industry discussions took place in Latvia and involved representatives of the Latvian Culture Information Systems Centre, the Netherlands Institute for Sound and Vision, the European Creative Business Network (ECBN), the Aalto University School of Arts, Design and Architecture and the Federation of European Publishers. Also policy-makers from ministries of culture, representatives of European cultural heritage institutions, the Latvian Publishers Association, Latvia's Think Tank Creative Museum, MSEG members, policy officers of the EC, the Latvian Ministry of Environmental Protection and Regional Development, and creative entrepreneurs (from Creativity Lab Estonia, Creative Estonia, CRE8, Cooking Fox, ArtStack, Games for Change Europe, REMIX Summits, Cube Mobile).

Reviewers

Many thanks to those who reviewed this paper and provided feedback, namely: Lizzy Komen, Netherlands Institute of Sound and Vision; Ragnar Siil, Creativity Lab, Estonia; Hans van der Linden, Flemish Government, Department for Culture, Youth, Sports and Media; and Jill Cousins, Milena Popova, Henning Scholz, Joris Pekel, Antoine Isaac and Ylva Klaassen, Europeana Foundation.

Co-funded by the European Union