Museums in the Digital Age

Museums and the Development of Active Citizenship

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Introduction

In times of an ever-changing society, museums face a shift of values. This development - an increased demand for museums to act as social agents encouraging social cohesion while also contributing to a growing economy - has become even more pertinent as Europe endures a financial crisis that impacts the entire functioning of its social system.

While museums' basic tasks will not change dramatically, with whom, for whom, where, when, how and why museums perform particular tasks will shift. All of these various aspects of museums' work need to be constantly questioned and debated. The proximity to the audience, the public, is a crucial factor for a successful museum in the future. As the true legitimisers of value, the public is central to any value creation. Only if people take part in shaping and forming their public space, one where different values meet, mingle and merge, can a democratic society exist and can the development of society be negotiated. The expression of these very values by the public becomes a society's culture.

Having recognised the crucial component of redefining the cultural value of museums, NEMO has developed four key areas that form the base of its strategic focus from 2013 to 2015. These four key areas, social value, collection value, educational value and economic value, are becoming increasingly important as museums strive to balance new technological developments, economic challenges and a changing public. In addition, not only do these values align with the objectives of Europe 2020, but they also provide a framework for developing a comprehensive strategy for cultural heritage in the EU, an asset that offers enormous potential for Europe's economy, society and identity, and an asset that is at the core of museum work today.

These four strategic areas are also behind NEMO's current core activities: highlighting the value of museums for society, increasing collection accessibility for European citizens, ensuring museums are able to exploit the benefits of the digital shift and to develop their potential as economic drivers, and lastly, supporting museums in reaching their full

potential as both formal and informal learning environments.

As key components of NEMO's work for museums and museum professionals of Europe, these topics also significantly shaped the issues explored at NEMO's 21st Annual Conference in Bucharest, Romania, from November 1-3 2013; the proceedings of which are documented chronologically in this publication. The conference itself was divided into three main components that are connected to the repositioning of museums in a contemporary, learning, digital, analogue, participatory and entrepreneurial society: *Museums in the Digital Age*, *Museums and the Development of* Active Citizenship and *The Future of the EU Cultural Strategy*.

Museums in the Digital Age
What challenges and which opportunities come along with the digital shift for museums? How can museums use ICT in order to connect people to their collections? How can museums handle open questions, e.g. with regard to copyrights? Between private companies and civil society, how can museums manifest their role and identify strategies to best position themselves toward the general public? These are just some of the issues and questions at the core of museum business today.

In order to set the stage, Paul Klimpel examines museums' position in the digital age, situating them between civil society, private companies and public institutions. He argues for museums' crucial relevance for our shared cultural heritage and thus the necessity of museums to adapt to the digital age. Mr. Klimpel also offers specific examples of ways in which museums can adapt their current tasks to address the requirements of the digital shift.

Rather than looking to how museums can respond to new challenges of the digital age, Nick Poole focuses on how museums can find success by redesigning museum experiences around the expectations of their audience - modern consumers. Mr. Poole argues that such adaptation must be made at every level of the museum, from its business model to its collections. Similarly, Charlotte Sexton outlines the potential of mobile technologies for museums, how museums can best respond to this opportunity and emphasises the necessity of keeping the audience's needs and motivations at the forefront. While providing a guide to creating an engagement strategy, Ms. Sexton also offers a checklist of practical considerations museums must address before launching mobile development projects.

Offering a legal perspective and addressing the various aspects museums face in the digital shift, Dimitrios Tsolis examines issues in regard

to legislation, including its important role in protecting museums as copyright holders but also its inadequacy in adapting to fast-paced developments of the digital age. Mr. Tsolis also provides specific examples of legislation that affect modern museum activities, offers possible solutions and takes a look at how these issues will play out on the EU level in the future.

With issues of copyright and accessibility in mind, Harry Verwayen presents the European Internet portal Europeana, which provides digital access to cultural content from heritage institutions all over Europe, and highlights its new strategic vision that will focus on community-based sharing and the reuse of cultural heritage material. Mr. Verwayen also reminds us of the importance in asserting an EU public presence within the cultural heritage market, one that is mostly dominated by private enterprises. Using Finland as a case study, Kimmo Levä examines the three stages of digitisation for museums, placing an emphasis on the current third stage that focuses upon accessibility and the creation of online platforms where multiple museums can share collections. Mr. Levä also sheds light on the issue of copyright law, which he believes poses a problem not in its mere existence, but rather in its complexity.

To conclude the discussion, Volker Rodekamp describes in detail the centralisation and digitisation of the collections of the Stadtgeschichtliches Museum Leipzig (Museum of City History Leipzig), an ongoing project that began over fifteen years ago. Effects of this digitisation project include not only significantly increased access to the museum's online collections, but also increased communication and outreach within the local community. The project serves as a prime example of the successes digitisation can bring to a museum and its community.

Museums and the Development of Active Citizenship
What is the potential that museums have in shaping an active civil society, one which relies on reflective citizens not only being conscious of their rights and responsibilities but also furthering them? What demands can be made of museums in shaping such a society?

Within the 2013 European Year of Citizens, NEMO examines new developments and demands from a society in change, one that is ageing, facing financial crises, communicating differently and wanting to increasingly participate in political decision-making. What are the tendencies of European museums in reacting to these changes? In which sectors are museums engaging successfully? Where must museums invest more attention and resources?

How do other cultural sectors respond to these changes themselves? How do other cultural sectors perceive museums' work in this regard?

These are the key questions that characterise a discussion about museums and their influence in the development and reception of a sense of citizenship in Europe - questions that were addressed in various ways by the speakers at the 2013 NEMO Annual Conference.

Tracing the historical development of museums, Henrik Zipsane begins the discussion by examining the connection between museums and the creation of regional and national identities. Mr. Zipsane further explores the current responsibility placed on museums by the EU of teaching about and promoting unique 'European values', ones that are inextricably linked to ideas of citizenship in Europe. Similarly, Massimo Negri discusses the existence of a common European heritage, one

that results from a common European civilisation. Mr. Negri argues that the increasing commitment to cultural heritage, one that depends on citizen contribution, is particularly evident within the museum sector and a driving force behind the construction of 'the spirit of Europe' and a sense of European citizenship.

With a focus on citizen collaboration, Enrica Pagella details the Museo Palazzo Madama's successful crowdfunding campaign, which during a time of financial hardship, restored an important work of art to the region and renewed enthusiasm in the museum's community projects and activities. Ms. Pagella's story highlights the crucial connection between cultural heritage and citizen participation. Also focusing on citizen participation and audience interaction, Jorge Wagensberg details his vision and concept of a 'total museum'. Conceived from the experiences of his own museum, Museo de la Ciencia of the 'la Caixa'

Foundation, Mr. Wagensberg's concept of the 'total museum' characterises a shift of museum language and a new emphasis on audience participation, one in which the sign of success is not the mere number of visitors, but rather, the stimulation and inspiration the audience receives from visits.

The Future of the EU Cultural Strategy
What can the EU contribute to bolster the cultural sector - and in particular, museums - to serve their communities and pave the way in allowing them to provide a meaningful service to the public? In which direction does the EU proceed with its 2020 Strategy for a smart, sustainable and inclusive economy in regard to the cultural sector? How do museums fit into the EU's strategy for culture? How and where can museums find support in order to contribute to this vision, or are they only expected to supply to a creative economy?

Two presentations focused specifically on the EU's cultural policy and the crucial role of museums in taking Europe out of its crisis. Beginning with a short discussion on the legacy of the Lisbon Treaty, Margherita Sani goes on to examine its implications upon museums and the new audiences that were engaged as a result of the strategy's emphasis on lifelong learning. Ms. Sani also explores the EU 2020 Strategy and the potential conflict it poses for museum funding, specifically whether or not museums will be forced to adopt more economically focused goals.

In a similar vein, Luca Bergamo examines the topic of cultural capital as a major asset to European society, an asset that he believes can bring Europe out of the current crisis and into a shared place of diverse and democratic values and beliefs. Mr. Bergamo details both the need for a new way of thinking about culture and also the need for museums, museum professionals and their audiences to participate more fully in the political decision-making process.

Through these three components, the 2013 NEMO Annual Conference helped to foster important dialogue and initiate discussion on issues vital to museums today, museums that are working for a constantly changing European society. This dialogue also helped NEMO to further develop strategic argumentation for its work of promoting the value of museums to society, increasing collection accessibility, aiding museums in becoming an economic driving force and helping museums become key learning environments for European society.

Julia Pagel, NEMO Project Manager
Kelly Donahue, NEMO Executive Assistant

Museums in the Digital Age
Introduction: Paul Klimpel

While the Internet's democratic potential has created corresponding demands and great opportunities, heritage organisations have been slow in engaging in digitisation. Why has this been the case? Understanding historical developments is crucial for appreciating both the multitude of current initiatives like Europeana and the emergence of other new actors in the field.

The Internet's promise of providing fundamental access to and distribution of European culture to within reach of its citizens, was enthusiastically created by this emerging knowledge-based society. However, due to unresolved legal controversies over copyrights, insufficient financial resources, a lack of technological expertise and inflexible mindsets, the practical realisation of making cultural heritage accessible through digitised representations has turned out to be a significant challenge.

During a period of intermediate consolidation, the cards were reshuffled and a new structure quickly emerged. Heritage organisations have by now developed their own strategies of presenting and interconnecting cultural heritage, strategies that in part, can be understood as reactions to the activities of commercial enterprises such as Google. At the same time, new collaborative and civil society based projects such as Wikipedia have also emerged, whose dynamics remain unparalleled even by commercial actors.

Where do museums stand in the digital age?
Private companies, heritage institutions and the civil society.
Paul Klimpel

Mr. Klimpel examines museums' position in the digital age, situating them between civil society, private companies and public institutions. By partnering with public organisations and private companies who have digital competencies, museums can take advantage of such know-how and provide digital access to cultural heritage. In order to aid museums in becoming more active players within the digital shift, Mr. Klimpel also offers specific examples of ways in which museums can adapt their current tasks for a future in the digital age.

In today's world, the Internet's relevance for our shared cultural heritage depends upon its open structure and how it is shaped by civil society, by companies that pursue commercial aims and by public institutions. Archetypes of these three different actors are Wikipedia, Google and Europeana. While on the one hand these actors are competitors and hold suspicions of one another, on the other hand, they cooperate with each other on many specific projects.

Museums were never the driving force behind digitisation or the new Internet possibilities of access, negotiation, dissemination and knowledge-networking that emerged from it. Rather, private initiatives beyond institutional public structures capitalised on this potential much earlier. The most important example by far is Wikipedia. For a long time Wikipedia was viewed critically and even ridiculed, however now, Wikipedia enjoys a considerable reputation and has established itself in the field of encyclopaedias.

Other companies have also, with immense courage and high investment, started to digitise and make more information accessible online. The Google Books Project, the most famous example of mass digitisation, is by no means the only one. While Google's projects were, and still remain controversial and contested, they have been very successful and many museums are currently cooperating with them, for example within the Google Art Project. Google is a dominant commercial player in the field, but there are many others - competition is just a mouse click away.

Although clearly museums have so far not been the vanguard in the process of digitisation, the need for them to become more active players is

crucial. Museums' tasks of collection, preservation, study and exhibition of cultural heritage remain vital ones, but the ways in which these are carried out must change and be adapted to the digital age. The following are examples of the way museums can change and adapt in the future:

1. Procure

It begins with procurement. In earlier decades, museums were often offered objects at discounted prices from beneficiaries who did not know how to handle such objects. For the most part, beneficiaries were unable to sell objects as there were often no other interested parties, and thus, no market. In the modern times of Ebay and countless other e-commerce enterprises where a buyer can be found for almost anything, times are very different. Museums face a new and interesting task. Instead of waiting for beneficiaries to come to them with discounted objects, museums must advertise and they themselves offer deals to sellers.

2. Preserve

With regard to preservation of digital objects, museums face entirely new challenges - challenges that they cannot solve themselves. Often museums lack the technical expertise needed for digital preservation. This will force them to increasingly rely on collaboration with data centres, external companies and experts.

3. Obtain

Museums today must not only create digital objects themselves, but also obtain the metadata via analogue objects - since metadata is the key to understanding cultural heritage. In the future, anyone conducting research will need access to digital collections, digital collections that require standardisation. Standardisation in the digital world includes web services, personal data standards and metadata exchange interfaces. Data modelling and collection in the digital age is a far greater challenge than the more classic 'book-finder'.

4. Explore

Digitised collections and modern, networked databases open up countless new valuable research possibilities. In order to take advantage of such opportunities in the digital age, museums must meet two basic conditions: they must digitise their holdings and they must make their inventories available online. This requires the standardisation of metadata so that the records can actually be used. The Europeana Data Model has made important steps toward such standardisation and offers a valuable example for museums. However, it will still be quite some time until museums implement these standards.

5. Announce

The possibilities are great for museums to make their holdings available through the Internet.

Although, again, this rests on the condition of digitising one's collections and the standardisation of those collections' metadata. The most ambitious and demanding project in Europe so far is that of Europeana, a crucial contribution to making the European cultural network discoverable. However, the paths of such an online cultural network are not yet completely clear-cut.

6. Exhibit

The area of physical exhibitions is probably the area that needs the least amount of adaptation. Exhibitions will continue to function through the aura of the original object and will continue to be subject to their own rules. Questions of exhibition design are only very indirectly related to digitisation. Sure, there are 'virtual exhibitions', or the use of new technologies such as smartphone apps as a replacement to the traditional audio guide. Such technologies can often create attention and awareness, prompting a physical museum visit. But, digital technology here has only a subordinate function, nothing can replace a museum visit.

Not avant-garde, but still essential
So, where are museums then in the digital age? While they are not the vanguard of the information age, they occupy an important

position in the middle. They are, and will remain, places that open up new worlds to visitors, which take collection, preservation and research seriously. The museum's place is in the centre of a society that is becoming increasingly interconnected through digitisation and in the centre of a rapidly changing network of institutions, initiatives and companies seeking to preserve and provide access to cultural heritage.

As long as museums stay in this centre position, all options for the future are left open. However, if museums refuse to participate in such cultural networking, their public mission will be lost and museums will become irrelevant and left behind in a rapidly changing society.

Soberly consider the new players in the digital age, Wikipedia, Google and the countless others. These new players have opportunities and capacities in the digital age that museums do not have. In the area of digital preservation, for example, data centres have skills that museums will never attain. Where museums can take advantage of these competencies through partnerships, other players can simultaneously draw attention to museums and provide access to cultural heritage, which is a gain for society.

Museums should confidently enter into such partnerships. However, it is important that terms of cooperation are negotiated and made

public - transparency is key. When conditions are unclear between museums and companies, suspicions grow. For example, the Bavarian State Library and Google entered into a very beneficial partnership, but as they did not publicise the cooperation agreement from the very beginning the reputation of the partnership suffered.

Cultural heritage belongs to all, not to some
Museums have a great responsibility. Cultural heritage belongs to everyone and digitisation and the Internet can help make it accessible to everyone. What museums do with public funds for society must remain public and access must never be limited in order to serve a minority's corporate interests. All collaborations must be committed to transparency and authenticity - timeless principles that must govern all actions - especially those of the digital age. The public space, which includes museums, must be preserved and protected.

Successful museums in the modern world.
Nick Poole

Mr. Poole argues that the question museums face today is how to succeed in the digital age, and more specifically, how to redesign museum experiences around the expectations and ways of life of its audience - modern consumers. New technologies offer huge potential for museums to intrigue and educate the public, especially society's young people, who will become the museum visitors of the future, individuals who know nothing but a digital world. He claims that adopting new digital technologies is now a museum-wide undertaking, an endeavour that needs to occur at every level of the museum.

Technology is no longer new. The Internet has been a part of daily life in the developed world for more than two decades. There are many people alive today for whom Wi-Fi access, smartphones and tablets are simply a fact of life.

The question is therefore less about how museums can respond to a 'digital' age, but of how one can design exciting, successful museum experiences around the way that modern consumers live their daily lives.

Museums must always look ahead and find ways to capture the hearts, minds and imaginations of children and young people so that they grow up to become the museum visitors of the future. To do this, it is vital to understand some of the changes that are likely to impact the life of someone who is under ten years old today.

In the field of technology, emerging trends such as wearable technology, convergent smart devices, smart materials, sensors and 3D printing will begin to open up new capabilities to create, personalise and distribute culture.

Lifestyles will change, placing greater emphasis on trust, accountability and locality as people depend less on large-scale institutions and increasingly on smaller social and family connections.

The production, consumption and underlying business models of the media will change to support the targeting of content to increasingly narrow niche communities, finally working towards personalised, on-demand experiences.

'MUSEUMS MUST ALWAYS LOOK AHEAD AND FIND WAYS TO CAPTURE THE HEARTS, MINDS AND IMAGINATIONS OF CHILDREN AND YOUNG PEOPLE'.

Science, the environment and business will evolve, building on tools that support the interpretation of large volumes of data, defining more effective ways for people to live within the boundaries of resources and sustainability.

This is the broader context which lies ahead for a museum, and which defines the expectations of a museum's visitors - not in some distant, imagined future, but today. The challenge is therefore not simply to situate 'digital' as a discrete area of work, but to look at a whole organisation and consider how it can be redesigned around the needs of modern consumers. This adaptation needs to happen at every level of the museum, including:

- The organisational mission - the strategy which drives a museum's work
- The policies and plans a museum has in place
- The collections (physical and digital) which a museum manages and makes accessible
- The facilities and experiences a museum provides
- The capabilities and values of a museum's staff
- The services a museum manages
- The business model of a museum
- The way a museum communicates and presents itself to the outside world

This is not a radical change. The core value of a museum in the modern world - to enable visitors to lead more meaningful, better-informed lives - is exactly the same as it has always been. It is simply a continuation of the ongoing process of evolution that has characterised the museum community for the past 150 years.

Mobile museums: where things stand.
Charlotte Sexton

Charlotte Sexton outlines the potential of mobile technologies for museums, how museums can best respond to this opportunity and emphasises the necessity of keeping the audience's needs, learning levels and motivations at the centre of every decision. Ms. Sexton provides a guide to creating an engagement strategy centred on the customer experience and examines other practical considerations museums must address before launching mobile development projects, particularly a museum's available resources, infrastructure, skills and expertise.

The current rise in popularity of mobile technologies such as smartphones and tablet devices is forcing cultural organisations, and especially museums, to think both strategically and creatively about how best to exploit these networked communication tools in order to more effectively connect with audiences. The ability to access information anywhere, anytime and in any context via these small, hand-held devices is transforming peoples' expectations and behaviours.

As people actively seek ways to better understand, interact with or simply enjoy 'culture', the question faced is how can museums, often with limited resources, best respond to this opportunity? This is particularly challenging given the potential complexity and cost of developing new products and services for these devices. The following provides a context for a wider strategic discussion and also a checklist for practical considerations that any organisation must think about before embarking on a mobile development project.

Modern society has a tendency to fixate on the 'new' and to be seduced by the next sexy gadget, especially as mobile technologies in particular have become almost ubiquitous over the last five years with the phenomenal take-up of smart phones and tablets like the iPad. However, it is important not to dismiss the power that an 'old fashioned' audio tour still has in transporting the listener, whether emotionally or intellectually, on a journey during which they can focus on objects and discover hidden stories.

This capacity of a portable device to engage a person with his or her cultural heritage is as

valuable a goal today as it was nearly fifty years ago when audio guides first emerged. However, the current challenge museums face is to consider how one can bring this experience up to date by making the best use of the contemporary communication tools that modern society has at its disposal.

By building upon the legacy of the traditional audio guide service, one that has been highly successful as a form of mobile interpretations since its inception in the 1950s, museums are now recognising the potential of these new mobile devices to extend the museum's appeal and to also deepen the relationship between a

museum and its public by providing relevant content and compelling experiences.

To do this effectively requires a clear understanding of not only a museum's audiences - who are they? - but also what their goals and motivations are for accessing and using cultural content. Only by having this level of understanding can an organisation have any hope of successfully developing new products and services that will actually engage and motivate audiences to use them. Fundamentally, this requires a robust design philosophy, which always seeks to put the needs of the audience at the centre of the decision-making process.

Should mobile play a role in museums?
The truth is, at most museums, mobile is most likely already playing a role in some way - whether through an existing audio guide tour, by people simply choosing to use their own devices while in the building or by people remotely connecting with the museum. Thus, the real question is how can museums think more strategically in order to exploit the potential of mobile engagement?

It is very tempting when one talks about the 'mobile museum' to assume the conversation should start with technology, but some would argue this is entirely the wrong place to begin. If the goal of museum professionals is to help audiences form meaningful connections with their social and cultural legacy, then they must be more thoughtful and creative about how they attempt to engage these audiences. One important way of doing this is by agreeing on, planning and implementing an engagement strategy.

An engagement strategy must focus on the audience and enable a museum to make smart decisions about which methods and tools to use in order to ensure the best experience for people, especially if that requires the use of mobile hand-held devices.

There are several essential factors to consider as a museum develops its engagement strategy:
- Audience - for all projects a museum must have a clear understanding of its audiences, their needs and their motivations.
- Collections - some projects might require new content or the re-presenting of existing content.
- Financial resources - depending upon size and complexity, a project can potentially be very expensive and thus, a museum will need to invest and plan carefully.
- Infrastructure - for some projects, a museum might need to enhance its infrastructure in order to support mobile use (e.g. Wi-Fi), which will require both investment and effort to install.

- Organisation - many projects will involve organisational change, which often entails modifications to daily working practices.
- Staff - mobile technologies in museums require staff to 'think digitally' and to apply this mindset across all aspects of their work.
- Sustainability - each project must be sustainable in the long term. Thus, it is often best if the project is part of a wider programme of work.

Planning for success

In addition to creating an engagement strategy, there are several other factors museums must address in order to deliver a successful mobile project. One of the best ways to ensure success and to create a great match for the audience, is to ensure the entire design process is as 'user centric' as possible. This means that a museum must not only know its audience, but should actively design products with them. The best way to do this is for the museum to adopt an agile approach to development. This ensures that each important aspect of the product can be developed and tested with the people who will ultimately be using it.

Another essential element for success is to ensure that content offered is the right kind of content - content designed with the audience - keeping in mind their levels of interest and presenting content in a way that mirrors learning styles. For example, the National Gallery in London utilises an editorial approach termed 'Skim, Swim and Dive', a three-tier approach to user engagement:

- 'Skim' is the most basic level, providing content designed to hook the visitor and entice them to find out more.
- 'Swim' is the middle level, providing content that is a bit more in-depth.
- 'Dive' is the deepest level, providing more complex material designed for visitors already familiar and interested with the subject.

'IT IS VERY TEMPTING WHEN ONE TALKS ABOUT THE "MOBILE MUSEUM" TO ASSUME THE CONVERSATION SHOULD START WITH TECHNOLOGY'.

Alongside essential design principles sits a range of further strategic considerations that are vital factors in ensuring that the effort and expense of developing mobile services will not only meet the needs of the audience but also serve the objectives of the museum. This requires clarity of vision, identification of long-term goals and an articulation of the museum's approach to public engagement. With these in place it will then be possible to consider what, if any role mobile technologies might play.

A museum needs to be smart about the way it manages its resources, whether those are its staff and their expertise, monetary funds for initial and continued development or the technical infrastructure needed to manage and deliver content. It must also address:

1. Brand - it is important that a museum stays true to its brand. Whatever new technologies a museum deploys they must always reflect the characteristics of the museum's brand, exploit its values and fit in well with the visual identity of the museum.

2. Marketing and promotion - whatever a museum produces, it will be wasting its time and resources if it does not actively engage in marketing these new projects and services to its public. The marketing needs to involve as much creative thinking as the development of the mobile offer itself to ensure that the right method of promotion is used and the right message delivered.

Only by building on these strategic considerations is it possible to develop tactical plans that will take into account issues such as available resources, infrastructure, skills and expertise required, as well as how best to reach the target audiences through an effective marketing plan.

Creating an effective engagement strategy and then deciding whether or not to embark on a mobile development project can be a challenging undertaking for a museum. While it can take considerable time and effort, it is essential for any museum thinking seriously about going mobile to consider the following if they want to give themselves the best chance of success:

- Always start with the audience and not the technology; centre any engagement strategy on the customer experience (from start to finish).
- Tailor content to the audience and their needs and fully exploit the attributes of the chosen delivery mechanism.
- Be prepared to consider the possibility that the best solution to engaging an audience may not necessarily be digital at all.

Legal aspects of digitising the museum: both sides now!
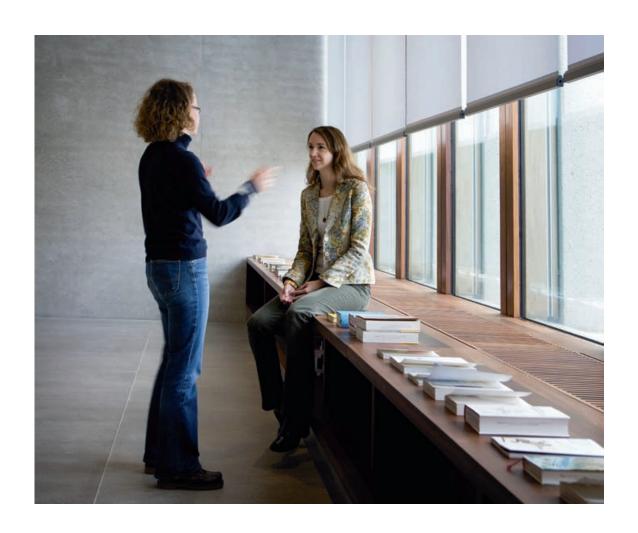## Dimitrios Tsolis

Dimitrios Tsolis takes a look at various issues in regard to legislation that create critical legal challenges for museums as they shift into the digital age. Legislation plays an important role in protecting museums as copyright holders but also often proves inadequate in adapting to the fast-paced developments of the digital shift. Mr. Tsolis also examines several examples of legislation that critically affect modern museum activities, such as orphan works and privacy, offers possible solutions and takes a look at how these issues will play out on the EU level in the future.

Museums are currently at an historical turning point. They face the great challenge of widening their structure and scope from long-term preservation and exhibition organisations, to online cultural content aggregators and service providers. Today, museums are asked to provide services ranging from digitisation and aggregation of digital cultural content, to interactive navigation, culture experiences, lifelong learning, social media and augmented reality applications. In addition, museums are working tirelessly to adjust their capacities and to reinforce their personnel expertise and competence for these new challenges while battling with budget restrictions, fragmented know-how and non-supportive governmental structures.

European and international initiatives have also vastly changed the museum landscape. The current digital environment calls for open-minded content approaches. Europeana, as a pan-European initiative, should be enriched so that it can disseminate European cultural heritage globally. Today, Europeana supports a wide range of content aggregation projects where public and private museums play a significant role in the diffusion of content to national and international aggregators or to Europeana directly.

A museum then, as a result, is expected to both safeguard memory and act as a larger cultural data centre, providing among other things, global, uninterrupted cross-platform access to priceless content. If successful, the museum will play a key role in the global market of the 'knowledge economy' as WIPO (World Intellectual Property Organization) defines it. The opportunity for a museum to succeed in this new global market is vivid.

Legislation on the other hand has two sides: a) it is established to protect a museum as an important copyright holder, and b) it is in many cases inadequate or adapting too slowly to cope with fast-paced developments. While some museums are on the forefront and are adequately dealing with new technical and digital developments, others are in the middle, simply behind, or in several cases uncertain, sceptic or even exposed when struggling to align with legislation.

It is true that legislation is originally established in order to create rules of protection, management and access to content. Laws protect creators, publishers, content holders, collective management societies, individuals and their personal data, individuals throughout their transactions, etc. In this sense, it is absolutely natural that a law could pose certain barriers towards access - towards the use and reuse of cultural content in the digital environment, and thus extend the scope of protection to new media, networks, mobile networks and devices, and social networks.

Indicatively, the laws affecting a modern museum throughout its activity are:

- Intellectual property rights legislation - in many cases contradicts the open use of content and its metadata on global networks. As a legislative framework, it sets a museum at risk even when simple digitisation activities are implemented or even when a museum's web portal provides access to content online.
- Privacy law - is threatened by the reuse of digital cultural content (especially contemporary arts, books, photographs, newspapers, audio and video archives) in worldwide networks and aggregators. The relevant legislation poses additional restriction to access when personal data is at stake.
- E-commerce legislation - regulates business transactions made on the Internet. The commercial exploitation of a museum's digital content is also regulated.
- Orphan works regulation - is being finalised at the EU level and will significantly affect the museums, libraries and archives sector.

There have been several solutions proposed, such as, defining a strategy for clearing rights, designing a well-defined business plan, outsourcing difficult and costly tasks and trying to gain new funding. When applied, a combination of such solutions (which do need to be tailored to each individual museum's needs) delivers beneficial results and definitely strengthens the museum so that it can stand strong within the new cultural digital market.

What does the future hold?

With Germany leading the developments, the EU Directive on orphan works is currently being adopted by the Member States. Greece's Minister of Culture has also presented an amendment proposal to the EU Parliament that should be adopted in the following months. The future compatibility of EU Member States' national legislation will boost the use of orphan works in the digital environment in the next years. Depending upon the definition of 'orphan work' used, more than 50% of content owned by museums can be considered orphan works, and under this assumption, the digitisation, dissemination and further exploitation of this content in the digital environment will be prominent. Thus, the current developments at the EU level will help to prevent such exploitation in the future.

The need for reviewing licensing mechanisms and terms of use is also growing stronger, especially as Europeana and similar initiatives develop. Current practice demonstrates that the existing legal terminology, the complicated copyright regulations and 'rights statements' are often misleading to both the content owners and the users. An open discussion is now underway concerning the actual meaning of 'public domain', the benefits of Creative Commons, the difference between the use of and the access to digital content and how terms such as 'paid access', 'copyright unknown', 'orphan work' and 'rights reserved' are understood by users. These are issues and terms that will be addressed in the near future.

In the short term, and as global initiatives for aggregating cultural content, such as Europeana, continue to grow, a simpler and more global legislative framework with a clear set of rights statements understandable to the Internet user and focusing especially on the use of digital objects in global networks will be necessary.

'IT IS ABSOLUTELY NATURAL THAT A LAW COULD POSE CERTAIN BARRIERS TOWARDS ACCESS - TOWARDS THE USE AND REUSE OF CULTURAL CONTENT IN THE DIGITAL ENVIRONMENT'.

Museums and Europeana.
Harry Verwayen

Harry Verwayen examines the new strategic vision of Europeana that focuses on increasing community-based sharing, reusing cultural heritage and contributing both to the creative economy and to social innovation. Mr. Verwayen also emphasises the crucial importance of providing people with access to culture - culture that has been collected for centuries in museums, libraries and archives. He also underscores the importance of Europeana and other public initiatives as examples of the greater shift in EU policy toward an increased presence in the digital world of cultural heritage - one that has until now been mostly dominated by private enterprises.

For the past five years Europeana has developed from a political aspiration to unite Europe in diversity, to a full-blown operation servicing a network of thousands of libraries, archives and museums across Europe. The most tangible expression of this endeavour is a portal, which allows users to discover material from every Member State and every domain in Europe. Europeana is now entering a new phase of its existence, where the focus will be placed even more on its contribution to the creative economy and to social innovation.
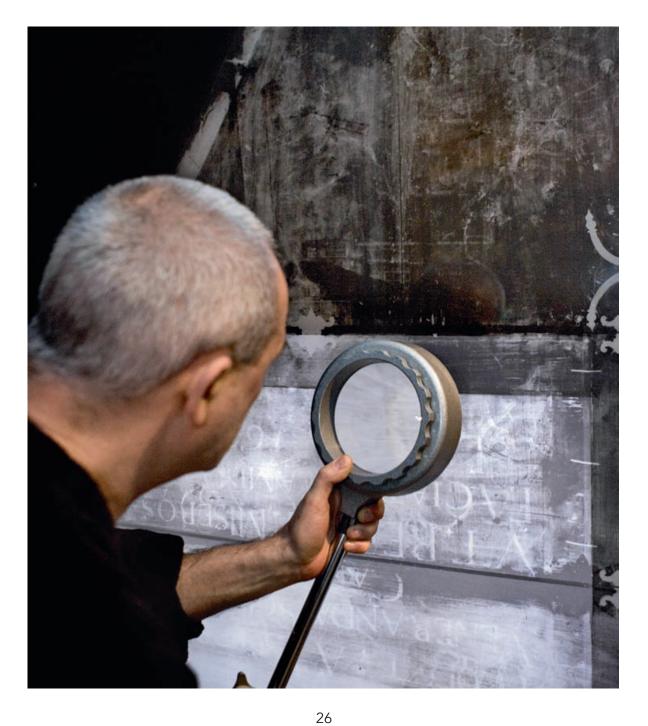
Why has culture been collected in museums, audiovisual collections, libraries and archives? Because the knowledge and ideas expressed in these institutions constitute key values of civilisation, ideas one finds expressed in long, complicated documents such as the Lisbon Treaty, which states 'the Union shall respect its cultural and linguistic diversity and shall ensure that Europe's cultural heritage is safeguarded and enhanced'. However, what treaties like this do not highlight is how important it is to provide people with access to that very culture. It is exactly this transmission of culture and creativity from one generation to the next that encourages people to rethink those ideas and to reuse them to shape their future.

That makes museums the transmitters of Europe's cultural DNA. It is a vital role. Especially now, that computing is everywhere, in every pocket, on every desk, in every home, people, including children, have almost unlimited opportunities to access the wonders that museums hold.

Museums have an important role to play and Europeana can be a powerful instrument to achieve their goals in the future. Europeana is currently re-establishing how best to service its network under a new strategic plan 2015-2020, funded under a new financial instrument by the European Union. This will mean less of a focus on inviting individuals to explore their heritage in a predefined way on the portal, and more of a focus on developing communities who reuse the data, content, knowledge and technology that Europeana and its partners make available to them. This shift is essential to enable a future that will be give-and-take, where one will be able to take from, and give back, to one's community.

Practically, this means that Europeana will create service infrastructures such as Europeana Labs, where developers and creatives will find (at least screen resolution) content, technology and documentation that they can use to build new services upon. It means Europeana will work with strong, like-minded partners such as Wikimedia to make all specifically licensed for-reuse content available on the platforms where one can expect the highest visibility and user interaction for one's content. Europeana will also ensure that a user is able to track and understand the impact of that engagement on one's own statistics so that users are not left in the dark. Furthermore, it means that Europeana will develop open source products, such as

channels, for partners who want to reach deep into specific interest groups, like fashionistas and foodies.

Europeana is a prime example of the greater shift in the EU's policy towards an increased presence in the digital world of cultural heritage, one which has until now been dominated by private companies, like Google or Wikipedia. Through Europeana, the EU has established a platform that will not only democratise information and bring Europe's collections into the homes of its citizens, but one that will also generate revenue through the creation of new business models. The project demonstrates the need for a continued public presence in culture - tangible and intangible - in the digital world, one that unlike its private competitors does not threaten museums' rights or citizens' personal data.

Kimmo Levä uses Finland as a case study to examine the three stages of digitisation for museums, focusing specifically on the current third stage, which is witnessing increased public accessibility to cultural content and an increased number of online platforms sharing museum collections. Mr. Levä also examines various complex copyright law issues that pose significant challenges for museums - issues such as compensation, orphan works and unforeseen costs.

A different way of doing things

Museums today must accept the Web 2.0 assertion that if you do not have an Internet presence, you do not exist at all. For museums, this entails digitisation in every function. It not only calls for investments in new technologies, but also demands more inclusive and expansive ways of working and thinking.

Museums have highly educated personnel, so the use of the requisite tools in the new information society does not pose a problem. However, a lot of work is needed to change the way things are done and this will not be easy, especially since museums have deep-rooted methods for how tasks should be approached and carried out. In most cases, these methods were created before the advent of the information society and the wealth of opportunities that accompanied it.

From local to global

Digitisation and networking in the information society are part and parcel of globalisation, which is often difficult to realise. For such a long time, museums have been housed in brick-and-mortar buildings and their customers stayed within their walls.

Similar limitations apply when it comes to cataloguing objects. Rarely, for example, have museums documented objects with the words: 'Europe, Finland, Helsinki'. Rather, in most cases, museums have begun with the name of the object. One is used to visiting and viewing objects in the same place where they are physically located.

Going digital in Finland: the stages of digitisation

In Finland, the digitisation of collections and museum work is currently moving into the third stage of development, one that focuses on the

ease of access and the versatile use of materials and objects.

The first stage occurred in the 1990s and basically involved digitisation. Museums digitised photos, documents and collection data. However, despite such digitisation, material was still stored on hard disks in museums. During the second stage of digitisation, in the early 2000s, museums began to implement collection management systems that made material accessible to the audience via the Internet.

Currently, in the third stage, the primary focus is upon creating a network where museums share the same collection management system, client interfaces and services based on the digitised material. A vital part of this third stage is to make client interfaces a well-known brand. In Finland, the most important project in this respect is 'Museum 2015' and in particular, 'Finna'.

The objective of the Finnish Museums Association's 'Art to interfaces' project is to enable museums to use their collections without incurring fees and to earn money for themselves and for the copyright holders. Museums earn money directly from the end users and copyright holders acquire an effective marketing channel, which helps them to build a career and a reputation, and hopefully generate a profit.

Notwithstanding the problems, digitisation presents a great opportunity for museums. It gives them the chance to open mobile and purely virtual museums alongside brick-and-mortar establishments. In actuality, mobile and Internet services are not just a possibility, but a necessity.

Copyright Questions for Museums

Internet accessibility does not come without copyright problems, which arise not from the mere existence of copyright laws, but rather, from their complexity. The thrust of the law is basically this: those who created the original artwork, photograph or artefact need to be compensated. This compensation can come in the form of a fee, fame or both.

The first problem museums must resolve concerns the person or persons who should be compensated. It goes without saying that museums house a lot of material where the owner is not acknowledged. In many cases, museums have not made contracts with copyright holders regarding publishing terms. Oftentimes, the copyright holder is actually unknown. These so-called orphan artefacts pose a problem, primarily when it comes to photographic collections.

The second problem is an economic one that can be divided into four categories: a) unforeseen costs, b) foreseeable costs, c) who pays the bill and d) who receives the money.

Museums have unforeseen costs due to orphan works, not least because they do not have enough information regarding to whom and in what circumstances they need to pay copyright fees. Foreseeable costs are those that museums have promised to pay, either directly or indirectly, to the copyright holders. For the most part, museums consider these fees too high, discover that the terms are for too short a duration or cover only one form of publication or distribution.

The question of who pays the bill is straightforward if the museum has opted to pay. But, if a museum cannot afford to pay, it must collect money from the end users. When museums do this, the open data ideology and expectations concerning museums are undermined as open data enthusiasts and the majority of museum customers expect to receive everything from museums for free.

The third problem arises if museums have decided to exhibit or distribute material free of charge. The open data philosophy does not bind the end user and it is highly likely that someone will generate money along the way from the museum's efforts. In the short term, this is unfair, and in the long term, it is unprincipled.

Volker Rodekamp describes in detail an ongoing project begun fifteen years ago to centralise and digitise the collections of the Museum of City History Leipzig (Stadt-geschichtliches Museum Leipzig). Results of the digitisation project include significantly increased access to the museum's collections, increased on-site visits to the museum and increased communication and outreach within the local community. The project serves as a prime example of the successes cooperating with knowledgeable partners and digitising museum collections can bring to a museum and its community.

After recognising the need for change in regard to its collections, the Museum of City History Leipzig began a project that ultimately transformed the museum into one that now addresses the needs of a modern public. Not only were collections centralised and catalogued in a new collection management system, but the ways in which visitors interact with, communicate knowledge to and receive knowledge from the museum were also completely transformed. The Museum of City History Leipzig acts as a great regional case study of how museums can digitise in the modern world and enhance the ways in which they connect with their community.

The way things were before
Until 1999, the source information about the objects in the museum were completely decentralised, each maintained by its respective curator. Therefore, the knowledge of each single curator about a respective object was more extensive than the existing written documentation in the collection.

Over the years it became more and more apparent that the documentation of the collection, one that was more than a hundred years old, needed a fundamental reorientation. In the course of in-house restructuring, a position 'Head of Central Documentation' was created, and under its watch, a thorough analysis of all existing source information was made and centralised. Following this, a new collection management system, GOS, was introduced and is now used for new acquisitions. This retrospective documentation and centralisation was done with the support of the local Leipzig employment centre, which provided temporary staff for over fifteen years.

CABINET-PORTRAIT

W. HÖFFERT, K. SÄCHS. & K. PREUSS. HOF-PHOTOGRAPH.

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The entire process of collection management has now been changed and is centrally managed. Today, there are a total of 300,000 objects which have been documented and can now be accessed online by the public. Since 2010, this data has been shared nationally and internationally with online portals such as Europeana, Deutsche Digitale Bibliothek and Kalliope.

Cooperation

Since the museum began its new approach to documentation, it has cooperated with partners in order to take advantage of their own experience and knowledge. In particular, these are the Institute for Museum Research and the Zuse Institute in Berlin. While working together with several volunteers in the Leipzig community, the museum also implemented a database of all victim groups in Leipzig during the Nazi regime.

Communication and outreach

In 2008, the museum first began to present objects to the public on its webpage. A reply button was included that allows website visitors the ability to email any additional information they have directly to the museum. Since 2008,

the museum has received a considerable amount of feedback from academic researchers, collectors and family descendants that continues to grow steadily. With the collective knowledge from this feedback, the museum has significantly expanded the information about its objects.

In addition to serving public requests, the museum's online database is used for several education services and projects. The online database connects the museum with local and regional schools, thus supporting explorative learning, developing students' research skills, preparing and processing student projects completed in collaboration with museum education officers and enabling the integration of real museum objects into the theoretical content of the education curriculum. Together, all of these activities combine to establish a hands-on and active relationship between students and their local and regional history.

Results for the museum
Through the online presence of the collections and the new permanent exhibition, the museum has become more popular than ever, and online visits to the collection have far outnumbered physical museum visits. In 2012, the museum received about 205,000 visitors to the physical premises of the museum, allowing them to see approximately 4,000 objects in the galleries, while at the same time, the museum received about 700,000 online visitors to the collection database. In the end, the museum received about two-thirds more visitors to its digital collections than to its physical exhibition and collections. Additionally, along with its larger online presence, the museum has noted a considerable increase of objects donated.

Together, the increased visitor interaction and information exchange through online requests and online visits, help to enhance the museum's own knowledge and the ways in which it shares this knowledge with the public.

The future
The museum still has about 200,000 objects, most of which are written documents, that still need to be entered into the online database. To accomplish this, the museum will need another six to eight years and additional staff to perform retrospective documentation.

It has become clear that the broadened presence of the museum's collections on the Internet and in portals has yielded a significant increase of requests from the public. Without additional staff and technical equipment, however, it will be a challenge to adequately serve these new requests and keep the pace of digital progress the museum would like.

Museums and the Development of Active Citizenship

Introduction: Henrik Zipsane

The history of museums is very closely connected to the key principles of the processes of nation building, democracy and citizenship. Even today in 2014, such processes, in particular the concept of citizenship, play an important role in shaping the ways museums and their ever-expanding public audience interact.

In the 19th century and for much of the 20th century, museums were given and accepted the task of constructing the common history of a people in a country or a region. This task was of equal importance to teaching the country's history in compulsory school education and to the parallel task of creating a common language and information structure in the country, both tasks that for a large part were taken up by the media.

The production method of museums, illustrating a vision of national and popular progress and a vision of national cultural wealth through regional diversity, has been a great success. If it had not been a success - which it clearly was, as evident in museums having grown so explosively in numbers - museums would have disappeared. The museum, as a construction of history and as a tool to exhibit that history, was well suited for the purpose.

Historians and museologists in twenty or thirty years from now will see the development since 1945 and not least since the 1970s in a new light, one which bears resemblance to the development in the earlier days of museums. In the first decades of the 21st century the international and particularly the European community has been assigning museums a new task: 'museums should be advocating for and learning places of basic universal human values!'

In a European context one can go even further and interpret the message from both the European Union and the European Council as a

cry for museums to spread the knowledge, understanding and acceptance of what may be called 'European values', values that are based upon the unique struggle for human rights.

These values differ fundamentally from the rest of the world - not least the USA - by, for example, categorical respect for human life (absence of the death penalty) and basic social security. Clearly linked to the concept of citizenship, such 'European values', which are today taken up by museums, makes the dimension of citizenship an essential component of the museum community and of museum work today.

Museums and the sense of European citizenship: key themes and dilemmas. Massimo Negri

Massimo Negri discusses the dilemmas and open questions that have arisen from an increasingly apparent European cultural heritage, one created from a common European civilisation that shares a certain set of specific features. He also examines the importance of citizen contribution to preserve and share this cultural heritage, underlining museums' responsibility to promote and foster such citizen participation. Mr. Negri addresses five key questions regarding museums' changing role in European society in the past decades, including how museums contribute to a sense of European citizenship and the impact of social networks on museums' identities.

Although the concept of a European culture is harder to define, it is undeniable that a common European civilisation with its own specific features has produced a vast common heritage. The commitment towards cultural heritage, which is developing with urgency, is evident within the complexity of contemporary museums' ambitious aims. Raising awareness of the importance of citizen contribution to preserve and enhance this cultural heritage also

remains, whether directly or indirectly, an essential element of any museum's mission. In order to achieve such aspirations, it is therefore essential that all citizens, including young people, are called upon to contribute.

Museums can thus play a crucial role in the building of 'the spirit of Europe' and the development of a sense of European citizenship. 'Museums for the many', 'Approche du publique', 'Musei dalla parte del pubblico', are different ways in different languages to stress the importance of an open door policy and of effective involvement of the audience in the life of 'their' museums.

Among others, the following key questions have emerged in the last decades that shed light on this changing role of museums.

1. Access: What are the essential features of an access policy of European museums?
It is no longer only a matter of free entrance, simplification of contents, effective communication or good cultural promotion. As Dirk Houtgraaf (2012) writes, '[s]lowly but inevitably we will move into an era of co-creation and connectedness. The main driver is the strong

ICT revolution'. Access no longer merely means attracting people into a museum, but rather, encouraging active participation within the museum itself and its community. Simply put, access means participation.

2. Europe in museums: What does Europe mean in museum terms?

To be straightforward, the different narratives of Europe are still openly debated. There is an 'almost shared' memory of European history, but when one moves beneath the surface to the deeper feelings of European citizens one sees how difficult is to ignore stereotypes and to openly discuss the most radical beliefs. Society in the 21st century is still a wounded society. How does one deal with the effect of past conflicts? A dissonant heritage still exists and in what ways museums can present this in an adequate and coherent way is still debated.

3. What is the possible role of museums in the development of a sense of European citizenship?

From information to seduction: museums will become relevant only if their role is recognized adequately by society and is in tune with the contemporary events and developments impacting their society. They need to document and address issues that are currently relevant to their audience's everyday life. It is not enough to speak about Europe (although it is still strongly needed), but rather it is essential that museums make effective use of their power of intellectual seduction to encourage a European perspective.

4. What are the implications of the impact of social networks on the museum identity and actions within the community?

Through content sharing, such as through Europeana, museums can boost their leadership in society. As the Internet is used as a primary information source and is seen as authoritative, which was not always the case, there is a chance for museums to position themselves as authoritative sources of knowledge in the cultural arena as well as in the edutainment ('educational entertainment') market.

As local, national and global dimensions become more and more interrelated, established ideas and principles from one dimension can be potentially undermined. Museums have the potential to show the various perspectives and diversity of beliefs, histories and narratives, and thus have the power to help build the interrelatedness between the local, national and global levels.

The 'virtual museum' has brought with it a shift in meaning, from the idea of the Internet as a showcase for attracting visitors, to the Internet as a fully digital and fully 'connected' vision of the museum's presence; today the museum on

the Internet is a comprehensive and articulated digital entity sometimes exhibiting its own autonomous life. This digitisation and virtualisation of museums, has also created new professional positions, such as cyber curators, that could not have existed ten years prior.

5. In the era of globalisation, how can a museum fulfil its mission while necessarily balancing various influences and different ways of interpreting its collections and cultural contents?

This is of course not only a challenge for museums. However, as one takes a wider look at museums and narrows in on the specific nature of museological discourse, it becomes evident that the core of the problem is a matter of museum linguistics. Museum linguistics is passing through a mutation process of which it is hard to identify the direction of development. This has to do with processes within western society, but also increasingly within the global world in general. In the case of the museum, its identity may be involved in a radical mutation; in the last fifty years, ICOM has reformulated the definition of museums quite frequently as new kinds of institutions entered the picture. Today, the crucial point is not what a museum is defined as, but rather how a museum thinks and acts.

Collaborating with the public: Museo Palazzo Madama and its crowdfunding campaign.
Enrica Pagella

Enrica Pagella examines the successful crowdfunding campaign of the Museo Palazzo Madama that restored an important work of art, an 18th century Meissen porcelain service, back to the region. She attributes the success of the crowdfunding campaign to three main factors: the quality of the service itself, quality of the organisational process and the quality of the participatory approach. In addition, Ms. Pagella further explains how this project renewed enthusiasm for both the region's cultural history, as well as new projects and activities in the museum community.

In early 2013, the citizens of Turin, Italy, participated in one museum's extensive project to acquire a work of art very important to the region's history, culture and identity. The outpouring of citizen support, which came in the form of a crowdfunding campaign, was the Museo Palazzo Madama's only hope in acquiring the work of art and demonstrated the crucial necessity of citizen participation in the modern age. In addition, the campaign renewed community enthusiasm for the museum's various projects and activities and transformed the museum's audience by bringing in new parts of society.

With an acquisition budget of €0, the museum launched the first Italian museum crowdfunding campaign as its only alternative to acquire a 42-piece Meissen porcelain service dating from around 1730, which once belonged to the Taparelli d'Azeglio family of Turin.

Intended to be sold at a Bonhams auction in London for the price of £66,000 (around €80,000), the service instead came back home to Turin to the Palazzo Madama, after the campaign successfully raised €96,203.90 in just two months from over 1,500 contributors. The success of this crowdfunding campaign can be ascribed to three main factors: quality of the artwork, quality of the organisational process and quality of the museum's participatory approach.

1. Quality of the artwork: identity and aesthetic values
The d'Azeglio service, dating from around 1730 is a splendid example of early Meissen porcelain. It bears the crest of Taparelli

d'Azeglio, a family that played a leading role in modern Italian history and whose last descendant, Marquis Emanuele (1806-1890), was the director and patron of the Museo Civico di Torino. The service was donated to an ancestor of the d'Azeglio family in Dresden, by Augustus II the Strong, and then kept in Turin until 1903, when it was sold after being inherited by a cousin.

The search for evidence surrounding the service started from a cup of hot chocolate found in a painting by Massimo d'Azeglio, Emanuele's uncle from 1843. The long story of the dispersal and then of the rediscovery of the service contained many twists and turns that engaged and intrigued the public of Turin. Facing such an exciting story, the public answered the call to play the part of real 'actors' by ensuring a happy ending for both the museum and the city through crowdfunding the campaign to acquire the service.

2. Quality of the organisational process: human and relational values, reliability

Teamwork and the collective commitment of the museum staff was another important element in gaining public support and ultimately in the success of the campaign. In December 2012, the museum's main stakeholders were approached in order to gather ideas and gain consensus and support. After the initiative was launched, all members of staff personally contacted their colleagues, friends, associations and local communities - schools, families, people taking part in the activities of the museum, etc. - with e-mails, phone calls, meetings, lectures and interviews.

Then, once the campaign commenced, its state of progress was examined weekly. This included counting the number of donations, the amounts raised and the effects of the social media communication campaign. Every week the list of donors was updated, donations from collection boxes in the museum were counted, bank payments effectively made by donors were checked and the counter on the website was updated. Progress was monitored constantly so that further actions could be planned, staff could be motivated and, most importantly, so that partial results could be communicated in a transparent and efficient manner to the public, keeping the emotional temperature high.

3. Quality of the participatory approach adopted by the museum: community and social values

While the museum was aware that this project would be full of uncertainties and risks, it also knew that it could count on the considerable work of community building that it had carried out since 2009. Since 2009, the museum had emphasised certain techniques and pro-grammes including: forms of communication,

'FACING SUCH AN EXCITING STORY, THE PUBLIC ANSWERED THE CALL TO PLAY THE PART OF REAL "ACTORS" BY ENSURING A HAPPY ENDING FOR BOTH THE MUSEUM AND THE CITY THROUGH CROWDFUNDING THE CAMPAIGN'.

accessibility and a focus on visitors' real needs; an analysis and application of visitor studies; the 'listening museum' experience of 2011, with the reconstruction of Italy's first Senate chamber; the inclusion of the institution in a local and international network; the desire to create a strong brand identity; and lastly, the massive amount of work carried out through the online community. All of these had paved the way for the success of the crowdfunding campaign by creating a sense of community that generated an emotional connection that people feel when something touches their hearts and drives them to action.

Conclusion - the unveiling

The service was welcomed to the Palazzo Madama and presented to the public on 4 June 2013 along with the names of over 1,500 donors. The following weekend the museum offered free admission to the public and enjoyed over 11,000 visitors who came to see the service. The service was then settled in its final destination, one of the showcases on the second floor dedicated to the Decorative Arts.

Because of this work of art, the Ceramic and Porcelain Gallery now has a new important narrative spot, the new Meissen showcase. Within the showcase, the major donors are welcomed and thanked with a label reporting their name and the date of acquisition. After nine months, in December 2013, the museum still had single donors, families and friends who came to the museum simply to see the service. The museum staff is currently working to involve all of them in new projects in 2014.

The 'total museum'.
Jorge Wagensberg

Using the example of a science museum, Jorge Wagensberg details his vision and concept of the 'total museum', one that embodies a shift in museum language - from using only objects to using objects and their phenomena. He argues that a museum, more so than a textbook, presents the most suitable location for individuals to witness and interact with reality, to better understand the interconnectedness of time and space. He also emphasises that the concept of the 'total museum' hinges on a new kind of audience participation, one where the sign of a museum's success is the stimulation visitors receive and the impressions that remain long after the visit, not the mere number of museum visitors.

A museum is a space of enormous social interest and its audience is totally universal. The reason for this is in its initial definition - since emotions, real objects and real events are 'words' that are ageless and have no specific social class or cultural level.

May this introduction serve to present a new vision for how museums can engage the audience and as a concept for a museum that,

in virtue of the scope of its ambition, one might call the 'total museum'. In order to illustrate the new vision and concept of a 'total museum' the specific example of a science museum is used here.

A science museum is a space dedicated to providing a stimulus to scientific knowledge, the scientific method and scientific opinion. This is the straightforward definition that produces the unspoken working hypotheses of over twenty years' envisioning of Barcelona's Museo de la Ciencia of the 'la Caixa' Foundation, and the definition that today explicitly sums up the ideas of CosmoCaixa, the museum opened on 23 September 2004. This, if you will, is a real mission statement of a total museology.

It is something that is already in the air as a tendency at some present-day museums, but neither the science museums of the past nor most of today are in line with. In principle, to follow through with this definition and to consolidate these tendencies, a new museography might need to be invented. The first science museums were natural history museums or museums of machines and instruments that

exhibited real items in glass cases to the public, but held a clear mission to build up and conserve collections for scientific researchers. The more recent science museums are museums - generally physics museums - where real phenomena are presented and which the visitor interacts with, but where there is also an absence of real items and also a certain degree of abusing audiovisual and IT resources.

However, it so happens that science seeks to understand reality and that reality is made up of both objects and phenomena. Objects are made of matter that takes up space, and phenomena are the changes experienced by objects, which take up time. Thus, the museum presents a more suitable location, than say a book, for witnessing the interconnectedness of time and space - reality. This also means that reality, whether objects or phenomena, is an irreplaceable aspect of a museum, in other

words, a must-have. Reality is 'the museological word'. Going even further, a museum is concentrated reality.

Perhaps this is the only thing that distinguishes museology from any other form of scientific communication. The lecturer and the teacher use the spoken word as a basic element of transmission, even while they enlist the aid of the written word, still or moving images, models, simulations, computer programmes, etc. A lecture can be given without slides, without reading text, without diagrams or without demonstrations of any kind, but a lecture cannot be given without speaking. In fact, a lecture cannot even be given just by reading a text.

Books, newspapers and magazines have the written word as their basic element of transmission, even though they use diagrams, drawings, maps and photos. But books or magazines without written words do not exist; they would be something else, an album perhaps. Silent films exist, but films without images do not exist, nor radio without sound. In a museum, there is no ban on using simulations, models, graphic images or new technologies, but only as accessories to reality, not to replace it.

At a science museum there is no ban on teaching, informing, instructing, entertaining - it cannot even be avoided - but none of this is a priority. In fact, for any of these goals there is another medium that does it far better. A good teacher or a good conversation with colleagues teaches us better and more than a visit to a museum. A good Internet search engine informs us better. Life itself is the great instructor, and each individual has his or her own favourite pastime for entertainment (for some people, of course, this can be the museum itself). But - what is the museum's very own job? What is its ideal function? What does it do better than any other system?

The answer lies in the definition started out with earlier: stimulation - creating a difference between before and after. At a good museum or a good exhibition, you have more questions when you are finished then when you began. The museum is a tool for change, for individual change and, therefore, for social change, too. The museum is irreplaceable in the most important stage of the cognitive process: the beginning, moving from indifference to a desire to learn. And there is nothing like reality to provide such a stimulus.

A new museography must be invented: a museography with objects that are real but able to express themselves in a triply interactive way: manually interactive ('hands on' in today's museum jargon), mentally interactive ('mind on') and culturally interactive ('heart on'). These

are objects that tell stories, which talk to each other and to the visitor. They are objects with associated events, living objects, objects that change. It is one thing to exhibit a sedimentary rock on its own and another to display an experiment that shows the process in real time of how the rock was formed.

How does one evaluate whether exhibitions really provide a stimulus to science? Museums usually strive to show off their visitor numbers and this is a bad habit. Visitor numbers should be of concern, especially if there are none or very few, but they provide no idea of the change effected in the audience. What really matters is whether an exhibition stimulates people to read books, to ask new questions in class, to make different choices when watching TV, to travel in new ways and, above all, whether it generates conversation, conversation during the visit itself, conversation with others after the visit, conversation with oneself (thinking) and conversation with surroundings (observation, experimentation).

The Future of the EU Cultural Strategy
Introduction: Margherita Sani

When examining the larger European framework and its strategy for museums, the mind goes to the Lisbon Strategy, which was launched in 2000 and established strategic goals for the following decade, i.e. to transform Europe into 'the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'.

Very soon after the Lisbon Strategy was launched, it became clear that these ambitious objectives would not be met and indeed they were not. Nevertheless, there was an important legacy of the Lisbon Strategy, which was lifelong learning and the importance it assumed for museums and cultural organisations. The EU defined lifelong learning as 'all learning activities undertaken throughout life with the objective of improving knowledge, skills, competencies in a personal, civic, social or working perspective'.

Since investing in people and in their capacity to learn throughout their lifetimes was considered an essential feature of the knowledge-based society Europe wanted to become, lifelong learning was one of the pillars of the Lisbon Strategy. And as was later apparent, its philosophy trickled down to inform the practice of many actors in the education and learning fields, including museums.

In recent decades, more and more cultural organisations in different European countries have been urged to engage with new and sometimes unusual audiences: migrants, the disabled, the socially excluded, but also adults who choose to visit museums in order to better understand, to gain new insights, to be inspired or to simply enjoy themselves. Lifelong learning - and the EU funding attached to it - has opened up a new era for museums: that of questioning one's own assumptions, of experimenting, of building up partnerships, of being challenged by encounters with different publics, new audiences, new citizens, and of trying to make a positive difference in these lives.

Currently, the museum community is facing a new European strategy, the EU 2020 Strategy that was launched in 2010. What does it say and is it possible to imagine what its legacy will be at the end of the decade? The EU 2020 Strategy defines itself as a strategy for smart, sustainable and inclusive growth. The strategy rests on three interconnected and mutually reinforcing priority areas:

1. Smart growth - based on knowledge and innovation; promotion of know-how; education; and the digital community;
2. Sustainable development - the 'green' economy; low carbon emissions; efficiency of resources; and competitiveness;
3. Inclusive growth - enlarged labour market and specialisation; war against poverty; a high employment economy delivering social and territorial cohesion.

Tracking the progress of growth within each priority area will be evaluated against five measurable headline EU-level targets, which Member States must translate into national targets.

These targets relate to:
- Employment - raising the employment rate for women and men aged 20-64 to 75%, including through the greater participation of young people;
- Education - improving education levels, in particular by aiming to reduce school drop-out rates to less than 10% and by increasing the share of 30-34 year-olds having completed tertiary or equivalent education to at least 40%;
- Sustainability - reducing greenhouse gas emissions by 20% compared to 1990 levels, increasing the share of renewables in final energy consumption to 20% and moving towards a 20% increase in energy efficiency;
- Research and development - raising combined public and private investment levels in this sector to 3% of the EU's GDP;
- Social inclusion - lifting at least 20 million people out of risk of poverty or exclusion.

In order to meet these targets, the EU Commission proposed a series of seven flagship initiatives: 'A Digital Agenda for Europe', 'Innovation Union', 'Youth on the Move', 'Resource Efficient Europe', 'An Industrial Policy for a Globalisation Era', 'An Agenda for New Skills and Jobs' and 'The European Platform Against Poverty'.

Against this backdrop, what role will the cultural sector play? The cultural and creative sectors are a significant driver of growth and jobs in Europe as they offer a key source of creativity and innovation, as well as contributing significantly to social cohesion and well-being. However, if all revolves around the economy

and job creation, and the word 'culture' is hardly mentioned in the EU 2020 Strategy, will cultural institutions - if they are aiming at EU financial support - be able to pursue their own goals or will they have to stage actions which are instrumental in achieving some kind of more general economic performance?

Europe: it is a transition, not a crisis.
Luca Bergamo

Luca Bergamo examines economic, societal and political changes in Europe over the past decades and their implications on the cultural sector of today and of the future. Mr. Bergamo discusses the transition that Europe faces today and emphasises that a new vision and narrative for the future is needed if the European project's founding values - e.g. democracy, human rights and education - will be promoted in the future. In addition to a new narrative, Mr. Bergamo details both the need for a new way of thinking about culture and also the need for museums, museum professionals and their audiences to actively participate in and influence the European political decision-making process.

For too long society has surrendered to a short-term approach to work, to politics and even to private life. For too long society has accepted that everything can be replaced by something newer and more efficient, something shinier or smarter. Society has done this up to the point where citizens have become increasingly incapable of nurturing human relations.

In November 1966 young people from all over Italy ran to rescue Florence's cultural treasures when flooding threatened the city. This happened because these young men and women were used to looking at their world with a larger span in time and space, felt connected to the world and considered themselves as active parts of their surroundings, more so than citizens today. The historical period of today requires that citizens reclaim this very thinking, that they begin to view the world with a broader perspective, keeping in mind the passage of time and a wide variety of issues.

What does the picture of today look like? Where is Europe in time and space? What is the framework of European museums composed of and what responsibility does the cultural sector have? What can be the contribution of museums in helping Europe to recover from a turbulent crisis? These and others, are the questions that need to be answered in order to find a sustainable strategy for museum advocacy in the coming years.

In 1810 the average lifespan of a European was below forty and the average income per year was between a few hundred and three thousand US dollars. In less than two hundred years the world population's life expectancy and average wealth have dramatically changed. Currently, the differences between the world's regions, both in life expectancy and in average income seem wider however. Looking at the transformation following World War II, a clear correlation between a longer life and a higher income exists, except for Africa.

Parallel to this enormous transformation during which the average life expectancy almost doubled, there was also an immense growth of the world population and a substantial change in its influence distribution. While the western world's decisions were shaping world destinies, its population was about 21.5% of the total in 1800 and about 30% in 1900. In 2050 this percentage is expected to drop to about 10% or less. Meanwhile, China and India's share of the global trade will increase from 5% to about 30%.
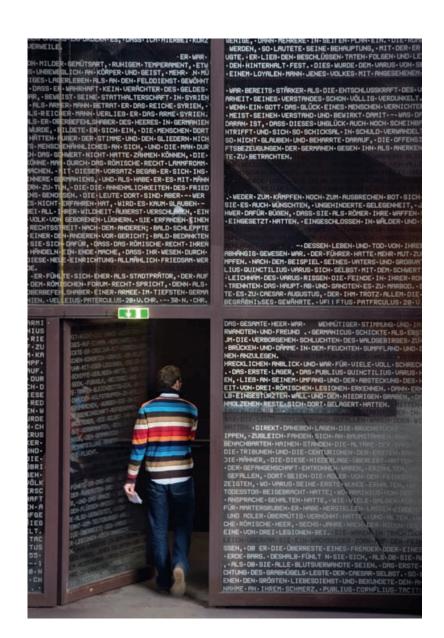
A period of almost continued European domination that lasted centuries, dating back to the early 16th century, is now coming to an end. New emerging transitional players and powers are challenging the role of national states as regulators of citizens' lives, as embodiments of citizens' sovereignty and as

vehicles for mitigating the effects of capitalistic economies on inequality by redistributing global wealth through welfare.

In addition to all of this, Europe is being called on to deal with the impacts of a changed population where the producers are now a shrinking minority. Moreover, long-term unemployment is dramatically impacting large groups of younger generations that find increasing challenges in building their future and seeing themselves as full citizens in a society that largely connects social identity to being recognized as a contributor to GDP.

Since 2008, European citizens have been told they are living in a crisis. They are told that in order to recover from that crisis they must restore the conditions for economic growth on which a basis of fair redistribution of wealth can be achieved. And while Europeans have been told every year since the so-called crisis started, that it would get better, reality has proven differently. What Europeans are not told is that the basis on which they built their prior wealth no longer exists: people are living longer, natural resources are being depleted and traditional job descriptions are becoming scarce.

Most of these conditions are irreversible. There is no going back. From the identity crisis brought about through economic and social

policies, to the crisis of ethics where advances in science increases our ability to influence our destiny, to the environmental crisis where our abuse of the natural world ultimately threatens our survival, our crises are complex and interrelated.

The inconvenient truth is that we are today not living through a crisis but rather through a transition whose outcome is yet to be completely understood. It is also abundantly clear that society's fate will change in complexity. If Europe wants to promote the founding values of the European project such as democracy, human rights and rule of law, equal rights and opportunity for all, peace and prosperity, decent education and standard of living, society must strive for, and bring to life, a new vision and narrative for the future.

This is Europe in the early 21st century: five hundred million people at a turning point. The project and peace of the continent endangered by a growing distrust in its capacity to solve today's problems. This distrust springs not only from the clear and existing limits of EU institutions' abilities to problem solve, but also, and perhaps more so, from the growing influence of the attitudes of national decision-makers and opinion-makers.

For decades in Europe, governments have acted to redistribute accumulated wealth to their citizens in order to mitigate inequalities, support citizens in better fulfilling their needs through public services and to grow private consumption. Nevertheless, over the last two decades inequalities have continued to grow in most European countries, widening the gap between the very few wealthy, and the many whose standard of living slides progressively towards poverty. Cultural participation has also drastically dropped since the so-called crisis began.

Today, new challenges confront European governments: they are called on to ensure the individual and collective well-being of their citizens not only through redistributing economic resources, but also through guaranteeing the necessary conditions for social cohesion and human rights fulfilment.

Culture and Europe: the major asset
The European Union itself is the first and the most ambitious attempt at establishing a new form of democracy where local and global dimensions can coexist. Building a common European identity within the European Union is an extraordinary challenge and is currently under attack. Creating such a common identity requires ancient and deep-rooted nations to reduce their sovereignty not because of the hegemony of one language, culture or

religion, but rather because of a willingness to organise cultural life around an intrinsically complex and diverse identity.

Despite the fact that European integration has prioritised the economic dimension, Europe is first and foremost a cultural and political project. A project whose future depends on cultural factors in a broad sense: on how different nations can come together around a single political, social and economic project based on, and respectful of, cultural diversity, fulfilment of human rights for current and future generations, acknowledgment of the limits to growth and adoption of a sustainable way of life.

This could be the potential future for Europe as it possesses the needed assets, tangible and intangible - democracy, rights, rule of law, freedom of expression, welfare/solidarity, education, environmental sensitivity, public spaces, etc. - and, just as important, has already developed a culture suited to bring this future to fruition. However, it is clear that without a substantial shift toward prioritising the need to build upon our society's shared assets and investing in adequate skills and mindsets, this opportunity will surely be missed.

This implies a completely new approach that is not based only on economic resources. Rather,

such an approach will require investing in the development of social capital, which ultimately depends on the cultural capacity of citizens and on the quality of their everyday life experiences. Enhancing people's cultural capacities such as cooperation and creativity, openness to diversity and curiosity, to lyricism as much as logical thinking, is essential in developing a fully sustainable society where human rights, civil liberty and shared well-being can be achieved. Art and science powerfully contribute to the enhancement of such capacities, as do cultural life, education, research, architecture and civic engagement, to name a few.

It is time for all decision-makers as well as all citizens to be aware that a broader discourse surrounding the development of societal cultural assets is needed, a discourse that concerns not only every citizen, but also most of the policies impacting the public sphere. It is time to better understand the impact of political decisions concerning a wide spectrum of policies on societal cultural assets and capacities, and to make an assessment of their cultural impact, similar to assessing the environmental impact of decisions.

What are the next steps? What is the role for NEMO and museums?
After testing new cooperation methods and partnerships by stakeholders - the EU

'SUCH AN APPROACH WILL REQUIRE INVESTING IN THE DEVELOPMENT OF SOCIAL CAPITAL, WHICH ULTIMATELY DEPENDS ON THE CULTURAL CAPACITY OF CITIZENS'.

Commission, the EU Parliament, Member States and civil society - the launch of the European Agenda for Culture in 2007 marked a turning point in the way advocating for culture and arts is viewed in Europe. Today however, citizens live in a different world. In this period of profound transition, promoting the role of culture calls for changes, including a new way cultural organisations and stakeholders think about culture and its role in society. Culture enables evolution and human development and should be understood as one of the key components towards citizenship and a new social contract.

With regard to policymaking, the world's culture should no longer be identified as a field of action limited on one side by artistic life and on the other by heritage protection. Cultural policy, intended as the set of measures concerning the protection and development of artistic life and heritage, should be replaced by something called Policy for Cultural Development. This would be based on the notion of culture that incorporates a large set of human activities through which individuals and communities could forge and consolidate the capacities and resources essential to compose the social fabric, which is composed of various sectors. Culture plays a role in each of these sectors.
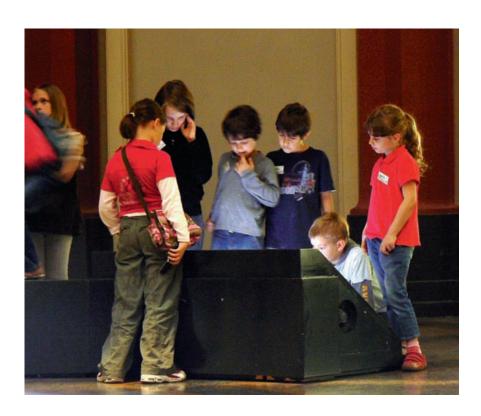
For a long period of time most cultural networks and operators have worked to influence decision-makers by providing advice and valuable knowledge on most matters concerning cultural policy. However, their analysis, debate and action too often evaded focusing on these actors' responsibility towards the society at large, thus progressively disconnecting the sector from the rest of civil society. Taking that into consideration, it should not come as a surprise that a majority of citizens does not consider cultural policy as

a priority, a consideration that prompts major consequences in a period of shrinking public spending.

In order to encourage the notion that culture is a necessary element for development, closer to the core of decision-making and public debate, it is now time for cultural operators and their representative organisations to:

- Place fostering societal cultural development at the heart of their reflections and actions.

- Partner with citizens' organisations and the civil society at large in search of convergences to make a positive difference on the accumulation of social capital.

Museums and their representatives can play a leading role in this endeavour. Museums are made up of public space, communities, competences, research, social processes, learning, art, architecture and much more. They can provide a long-term perspective in relation to the past and the future to empathy,

act as learning environments and challenge the beliefs of individuals or groups; in short, they provide experiences that impact those essential cultural capacities that are the elementary components of social capital.

If understood and managed as complex realities to be fully embedded into the society for its ultimate benefit, museums are a major asset in any policy aimed at paving the way for a new European way of life, one based on the fulfilment of human rights and sustainability. To this extent, existing valuable museum assets must be made known beyond the museum world and be made accessible in order to nurture different contexts, such as libraries, theatres and schools, to name a few.

A new way of thinking about culture is a necessity though it will not suffice to reverse the tide of political and private decision-making that reduce the resources available to cultural activities. Despite good will, political decision-making is still much more about balancing demands from different and often opposed constituencies. Building the case for culture is essential in order to foster new constituencies that recognise themselves as such - as participatory citizens of Europe. In fact, this is the most important condition that will impact decision-making processes.

As stated above, while the past years' discourse over culture was somehow 'self-centred', today's constituency in support of new and more effective policies to foster cultural development is fragile. A new way of thinking about culture will pave the way for the creation of a European-wide movement for culture that is, more than ever, a necessity in aiding society to overcome its depression. Museums, museum professionals, their communities and their representative organisations can play a major role in shaping and promoting this new way of thinking and in influencing the process of creating a European cultural movement.

Beginning in 2014, Culture Action Europe (CAE) is integrating its traditional advocacy into a new larger set of actions. Using a metaphor, CAE will also function as a 'public transport network' (PTN) to facilitate inter-connections between civil society organisations, to foster convergence around common messages and provide support to convey them, and to maximise CAE's global impact on public opinion and decision-making both at the national and European levels.

The PTN will 'follow lines', lines that tackle major societal issues seen through the lens of culture - from learning to citizens rights, from welfare to the human footprint on the planet. The lines' stops consist of activities such as

debates, knowledge building and dissemination, training and expertise, activism and campaigning, communication initiatives and targeted projects, which will provide organisations or individuals with the opportunity to join.

By paving the way for new and stronger partnerships and giving space to experimentation whilst welcoming and integrating newcomers, this structure aims to develop a participatory common agenda with united action expressed by a single voice, the one of culture. The better coordinated those engaged in providing culture the right role in the public sphere are, the better the impact of each and every undertaking will be.

NEMO as an appreciated and influential member of CAE can, and hopefully will, act as a leading partner of that transformation. This is a process of mutual empowerment through which all actors can directly benefit by contributing to the growth of social capital in Europe and eventually to every citizen's well-being.

Conclusion

The presentations have shown how interconnected the topic of society's digital shift is to a new sense and understanding of citizenship. Continued digitisation of our everyday lives is undeniable and irreversible; the young generation does not even talk about 'digital' anymore. The changes we see all around us - from communications, to education, to business and to medicine, just to name a few - might have started and been shaped by the digital shift, but after all are strong indicators of society's changing needs and behaviours.

We still lack a strategic vision for this new setting. There is no one-to-one translation from the analogue world to the digital one. For example, is the assumption that more information leads to more democracy still viable? Or, in the digital world with assumedly all information available, does the abundance of information lead to less democracy? Can the overload of information keep citizens from becoming active citizens because it becomes increasingly difficult to determine relevant information? And, can museums help by making visible and structuring such information?

How can museums contribute to navigating this new analogue-digital world and make use of the great benefits it brings while remaining aware of the challenges arising from it? Can they help to find a new paradigm that responds to today's world?

We - as society, as individuals and as cultural players - must create a new and comprehensive narrative for our lives. This narrative includes basic questions like 'how do we picture our relationship between private and public life?', 'how can we translate "togetherness" into the digital age?', 'how do we want to earn our money?' A review of society's relevant values is needed to create such a narrative, including the definition of cultural values. This narrative should enable our society to reflect, recognize and capture the full range of values expressed through culture, to make explicit a much broader range of cultural, non-monetised values, to view the entire cultural system including all of its

subsystems and to better understand how systemic health and resilience are maintained.

If we begin by examining theses cultural values, we must ask how, and in what ways, museums can contribute to social cohesion and make a positive difference in the lives of individuals and their communities. That means particularly that public organisations must actively and continuously seek input from the public to ensure an organisation's legitimacy and must engage the public as co-creators so that communities can consciously shape their surroundings. This requires active involvement from citizens in the development of a new narrative - citizens who understand their rights and duties as well as the possibilities to influence and shape their environment.

Where does the unique project 'Europe' come into the reframing of our common values and the creation of this new narrative? Is there a European approach at all? How can we keep in mind the bigger questions of how we want to live together in a diverse and democratic Europe while still relating to our immediate surroundings? Certainly, one of the many answers is to connect with and to be aware of the other. Networks can play a leading role in this.

NEMO is working towards this goal. Our network wants to contribute to a European museum sector that exploits its potential to further a broader social agenda, that makes its museum collections as widely accessible as possible to all citizens and that is recognized as an important provider of formal and informal learning and a contributor to Europe's economic development in the future.

Siebe Weide, Chairman of NEMO

Authors' Biographical Details

Luca Bergamo is the Secretary General of Culture Action Europe (CAE). Previously he served as Director General of the Italian National Agency for Youth where he promoted, and later directed, the NMC initiative on sustainable development in collaboration with UNESCO, UNDP, ILO, UNHABITAT, IADB, WB and other non-governmental agencies. He also served as Director General of the 'Global Forum', an international foundation promoting peace dialogue, cultural cooperation and active citizenship in sensitive regions in cooperation with UN Agencies and local authorities worldwide. Mr. Bergamo also served as the Executive Director of Zone Attive, a public-private company fostering cultural innovation in Italy, and worked on the team of the Mayor of Rome, leading the youth policy department.

Paul Klimpel is a practicing attorney at iRights.Law and chairs the iRights.Lab Culture. He also coordinates several projects concerning cultural heritage at the Internet and Society Collaboratory. He moderated an expert group and published the 'Berlin appeal on preservation of digital cultural heritage' in 2013. Previously, Mr. Klimpel worked at the Museum of Film and Television as its Administrative Director and also as the Chief Executive of the German Network of Multimedia Resource Centres. Paul Klimpel studied law in Bonn and Munich as well as philosophy, psychology and social sciences at the Jesuit University of Philosophy in Munich. His doctorate thesis on legal paternalism was published in 2003.

Kimmo Levä is the Secretary General of the Finnish Museums Association and has been the Managing Director of Oy Chronicon Ltd. since 1992. His previous positions have included Museum Director at Mobilia (National Road Traffic Museum) and Mobilia Foundation Commissioner from 1994 to 2011. Mr. Levä is currently a Board Member of ICOM's Committee of Management and Leadership (INTERCOM) and the Vice Chairman and Board Member of the Culture for All Association. In the past he has served on several other boards including the Finnish Museums Association, the Kangasala Tourism Association, the Trafiikki Museum Association and the Finnish Museum Directors Association.

Massimo Negri is the Director of the European Museum Academy. Prior to directing the European Museum Academy, he was the European Museum Forum Director and a jury member of the European Museum of the Year Award. He was also awarded two Fulbright Scholarships at the Pennsylvania State University and at the Smithsonian Institution. Mr. Negri is a member of the Scientific Committee of the Museum of the Cathedral (Museo del Duomo) of Milan and the Scientific Director of the Executive Master Course in European Museology, IULM University, Milan. He is an independent temporary exhibition specialist and an active lecturer on industrial archaeology. He has written several publications in this field and on museological matters in general and also teaches museology at the State University of Padua.

Enrica Pagella is the Director of Palazzo Madama and the Borgo Medievale in Turin. Before becoming Director, Ms. Pagella worked on the new display settings and restoration of Palazzo Madama that opened to the public in 2006. Previously, Ms. Pagella directed the municipal Art Museum of Modena and was responsible for its refurbishing and reopening project. Graduating with a degree in Medieval Art History, Ms. Pagella has devoted a great part of her career to the field of conservation and museum management, with particular attention to accessibility and participation policies. As a member of ICOM, she was nominated as 'Best Curator of the Year' in 2012. She has also taught as a fixed-term lecturer at the universities of Bologna and Turin and published several papers on medieval art, collecting and museum history.

Nick Poole is the Chief Executive of the Collections Trust, a UK based not-for-profit organisation that works with a network of 23,000 museums to open up their collections for discovery and use. Mr. Poole is also the Treasurer of the Chartered Institute of Library and Information Professionals and Chair of the Europeana Network, a network of 800 cultural and creative industry partners across Europe. He was formerly a Trustee of the Museums Association and Chair of ICOM UK. Nick Poole studied modern and medieval languages before working first as a portrait painter and then in investment banking. He has held positions as a Government Policy Advisor and is currently the UK representation to the European Commission on matters relating to culture and technology.

Volker Rodekamp is the Director of the Stadtgeschichtliches Museum Leipzig (Museum of City History Leipzig) and the President of the German Museums Association. He also has various teaching assignments at the University of Münster, Humboldt University Berlin and University of Leipzig. Mr. Rodekamp studied folklore, ethnology and journalism in Braunschweig and in Münster, and received a doctorate with a study focusing on the influences of structural changes on traditional labour work in the 20th century. He is a member of multiple scientific organisations and professional associations such as the Institut für sächsische Geschichte und Volkskunde e.V., the Kulturstiftung Leipzig and the Stiftung Völkerschlachtdenkmal Leipzig.

Margherita Sani is in charge of European museum projects, specifically in museum education, lifelong learning and intercultural dialogue at the Istituto Beni Culturali of the Region Emilia-Romagna. She has led a number of European funded projects, including the Network 'LEM - The Learning Museum', the Grundtvig Multilateral Project 'Lifelong Museum Learning', the Learning Partnership 'Museums tell many stories' and the Grundtvig Multilateral Project 'MAP for ID - Museums as Places for Intercultural Dialogue'. Since 1996, Ms. Sani has organised the annual European Museum Forum Workshop, an international training event in the museological field. She has also been an Executive Board Member of NEMO since 2008 and since 2012, a jury member of the Children's Museum Award. She is one of the European Museum Academy experts and a member of ICTOP (ICOM Committee Training Personnel).

Charlotte Sexton is the President of the Museum Computer Network (MCN), responsible for the organisation's administration and strategic direction. In her previous role as Head of Digital Media at the National Gallery, London, she was responsible for designing digital experiences to engage physical, online and mobile audiences with the Gallery's world-class collection. She successfully developed the National Gallery's Digital Engagement Strategy and transformed the way the Gallery thought about digital and its central role in delivering key organisational objectives. Ms. Sexton has more than fifteen years experience in managing complex digital projects for mobile, online and in-gallery consumption - many of these have been widely recognized and award winning. She frequently lectures in digital media and strategy and has been a visiting lecturer both in the UK and internationally. She has worked independently as an Interaction and Multi-Media designer, was a director of a .com and has been a fine art filmmaker and photographer.

Dimitrios Tsolis is a lecturer at the Cultural Heritage Management and New Technologies Department at the University of Patras and a researcher in its Computer Engineering and Informatics Department. Mr. Tsolis has participated in various European and national projects regarding digital content ingestion processes and technologies for museums, long-term digital preservation, e-Archiving, IPR and DRM systems. He also participates in various committees such as Europeana v1.0 Workgroup 1.2 Legal and the Greek IPR Committee. He is the advisor to the Hellenic Intellectual Property Organisation, the Azerbaijan's Copyright Office and the Copyright Agency of the Republic of Armenia in matters including technical means for protection and management of intellectual property rights of digital works, and digitisation of cultural heritage. He has authored more than seventy research papers.

Jorge Wagensberg is the Scientific Director of the Foundation 'la Caixa' and the former Director of the Area of the Environment and Science at 'la Caixa'. Previously, he also worked as the Director of CosmoCaixa, the science museum of the Foundation 'la Caixa' from 1991 to 2005. In addition to his work at 'la Caixa', Jorge Wagensberg is a professor of Theory of Irreversible Processes in the Faculty of Physics at Barcelona University. He also created and currently directs the series Metatemas published by Tusquets Editores, a collection that is a reference point for scientific thought. Jorge Wagensberg has published over a hundred research works in fields as wide-ranging as biophysics, entomology, mathematics, microbiology, palaeontology, philosophy of science, scientific museology and thermodynamics.

Harry Verwayen is the Deputy Director of Europeana, responsible for the development of Europeana's business with a main focus on the design and implementation of new business models that will support Europeana in fulfilling its mission as 'distributor, facilitator and innovator'. Prior to Europeana, Mr. Verwayen worked at the Amsterdam based think-tank Knowledgeland where he was responsible for business model innovation in the cultural heritage sector. He holds a MA in History from Leiden University and has worked over ten years in the Scientific Publishing Industry. Mr. Verwayen has published several articles including 'Business Model Innovation Cultural Heritage' (2010), 'A business-model perspective on end-users and open metadata' (2011) and the white paper 'The Problem of the Yellow Milkmaid, a Business Model Perspective on Open Metadata', along with Arnoldus, Kaufman (2011).

Henrik Zipsane is the Director of the Jamtli Foundation, a heritage organisation in central Sweden. In addition to his work at the Jamtli Foundation, he is a co-founder and senior researcher at The Nordic Centre of Heritage Learning & Creativity, an R&D organisation for learning through heritage engagement. Mr. Zipsane is a guest professor in heritage learning and regional development at Linköping University and an associate of Pascal Observatory and the Centre for Research and Development in Adult and Lifelong Learning (CR&DALL). He is also an associate of the European Expert Network on Culture and an appointed expert on culture and adult education by the European Commission. Mr. Zipsane is a board member of Culture Action Europe and holds a PhD in education and history from The Danish University of Education.

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