

Digital approaches in cultural heritage: towards a Pan-Baltic cooperation network

Final report

Project "Digital approaches in cultural heritage: towards a pan-Baltic cooperation network"
Funded by the Council of the Baltic Sea States under the Project Support Facility



Project partners



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About project

The project “Digital approaches in cultural heritage: towards a Pan-Baltic cooperation project”, co-funded by the Project Support Facility of the Council of the Baltic Sea States (CBSS) under the priority area “Regional Identity”, was realised from 01.07.2018 to 20.11.2019 by the National Library of Latvia in partnership with the National Library of Sweden, the National Library of Estonia, Rostock University Library and Martynas Mazvydas National Library of Lithuania. The main aim of the project was to seek opportunities to strengthen and expand cooperation among cultural heritage operators in the Baltic Sea Region, focusing on the application of digital approaches in cultural heritage. A horizontal goal of the project was to promote the presence and respect of the incoming generation of young professionals in cultural heritage.

The main objectives of the project were:

- To collect and examine current best practices in the Baltic Sea Region regarding the application of digital approaches in the field of cultural heritage.
- To develop recommendations for increased Pan-Baltic collaboration in the implementation of digital approaches in the field of cultural heritage, containing practical suggestions for cultural heritage institutions in three distinct areas of collaboration.
- To propose a scenario for creating a Pan-Baltic network for cultural heritage professionals working in various institutions dealing with cultural heritage to address issues and opportunities created by the digital shift in cultural heritage and foster Pan-Baltic cooperation in digitisation, digital preservation and access to cultural heritage.
- To embrace the perspective of millennials on cultural heritage.
- To engage young professionals in the field of cultural heritage.

The project was realised through three distinct phases, each with its own goals.

- 1 Phase one – elaboration.** The goal of this phase was to explore the current state-of-art in the application of digital approaches in the field of cultural heritage in the Baltic Sea Region countries and to identify prospects for effective Pan-Baltic cooperation in these areas. That was carried out by four separate expert groups, each focusing on one distinct aspect of the use of digital approaches in cultural heritage, guided and assisted by the steering committee of the project. The work of those groups prepared the ground for further discussions on the proposed approaches during the next two phases of the project.

The expert groups addressed the following themes:

- a) **Preservation of the recent cultural heritage, including born-digital** (Expert Group 1). This expert group focused on issues concerning the preservation and access to the recent cultural heritage, including the born-digital heritage, as well as the long-term preservation of digital cultural materials. As cultural materials are increasingly created and distributed in a purely digital form, there is an increased pressure to find effective ways to ensure that these materials are not lost to future generations. Cultural heritage institutions are becoming increasingly aware of the costs and complexity of the long-term preservation of digital and digitised

cultural heritage. These challenges cannot be effectively addressed on either institutional or national level, and sharing of both competences and services can be very effective. This expert group was led by the National Library of Estonia.

- b) **Use of cultural heritage materials for regional identity building** (Expert Group 2). This expert group focused on opportunities to use cultural heritage materials in digital products and services for general audiences, especially the youth. As cultural heritage is not only local and national, but also regional and global, digital approaches are well suited to effectively raising the awareness about our shared regional culture, history and identity, and jointly developing cross-border digital resources. As this field is very recent and dynamic, there is a lot to learn from each other about the most effective ways to embed cultural heritage materials in digital products and services for education and general audiences, including virtual reality and augmented reality applications. This expert group was led by the National Library of Lithuania.
- c) **Use of cultural heritage materials in research across borders** (Expert Group 3). This expert group focused on opportunities to boost the cross-border use of cultural heritage materials and data in digital research. As research is getting more collaborative in its nature, and there is a big interest in developing innovative research methods and tools, there is a significant potential for cross-border collaboration. The group discussed models of collaboration among cultural heritage institutions, digital research labs, scholars and research institutions, addressing such issues as digital competences of scholars and cultural heritage professionals, design of digital research services and aspects of research data curation. This expert group was led by Rostock University Library.
- d) **Cross-border accessibility of cultural heritage in digital environment** (Expert Group 4). This expert group focused on opportunities to enable wide cross-border accessibility of copyright protected cultural heritage materials, which is being hindered by the varied copyright regimes and licensing practices across the Baltic countries. As the progress in this area is vital for society to fully enjoy the benefits of digitisation across borders for all kinds of uses, this expert group explored the most efficient ways to address these issues, including extended collective licensing deals, the use of the tools provided by the orphan works legislation, the use of separate cross-border licensing deals, etc. This expert group was led by the National Library of Sweden.

Each expert group produced a report, which contained an overview of the existing best-practice in each area across the countries of the Baltic Sea Region and a set of conclusions and recommendations, outlining the opportunities to increase the collaboration between the Baltic Sea Region countries and cultural heritage institutions.

- 2 **Phase two – setting the stage.** During the second phase of the project, the reports of expert groups and their recommendations were presented to and discussed with a wider audience of cultural heritage professionals, policy makers and other stakeholders. To achieve this goal a conference on digital approaches in cultural heritage was held in Riga, Latvia on 21–22 May 2019¹, in the framework of the Latvian presidency of the CBSS. The conference programme was built around the four topics explored by the expert groups, each group presenting its report and recommendations in a breakout session. Feedback of the audience was harnessed via Panel discussions with cultural heritage professionals. Plenary sessions provided the framework for discussion, outlined the issues in the areas explored by the expert groups, discussed the potential to implement the recommendations and explored the ways

1 Conference video archive dach.2019.lnb.lv

to establish a permanent Pan-Baltic network for collaboration. The main audiences of the conference were cultural heritage professionals, with a special focus on young professionals, and policy makers and other stakeholders, such as representatives of the Baltic Sea countries to the Digital Cultural Heritage and Europeana expert group of the European Commission. The results of the conference fed into the final project report, developed during the third phase of the project.

3 Phase three – establishing the way forward. The goal of this phase was to develop and communicate scenarios for establishing a permanent network for Pan-Baltic cooperation in the area of applying digital approaches in cultural heritage. Reports of the expert groups and feedback harnessed during the conference were used to develop the final project report. The report contains the overview of the current best practice and a set of conclusions and recommendations for institutions and policy makers both on national and Pan-Baltic levels.

The report and its recommendations were communicated to the relevant stakeholders, including the CBSS, Baltic Region Heritage Committee, Nordic Council of Ministers, coordinators of Policy Area Culture of the EU Strategy for the Baltic Sea Region, Ministries of Culture of Baltic Sea countries, Digital Cultural Heritage & Europeana expert group of the European Commission and Europeana Network Association.

Preface

Cultural artefacts are increasingly created, distributed and consumed by using digital technologies. These technologies are developing at a breakneck speed and different societal groups are becoming increasingly more adept at using digital tools and used to excellent digital (mostly commercial) services. Audiences are expecting digital cultural experiences unlike the ones cultural heritage institutions are used to offer, as well as more options for direct engagement. Digital economy actors are breaking down the usual cultural consumption patterns and thus creating tensions between the traditional and the new players in the digital era. When it comes to providing digital cultural services and products, cultural heritage institutions have to meet an exceedingly high bar of expectations.

The existing physical collections of cultural heritage institutions are being digitised at an unprecedented pace. At the same time cultural heritage institutions are under pressure to find new and effective ways for acquiring born-digital cultural artefacts and to ensure that they are not lost for future generations. Collecting, describing, preserving and making these new types of culture accessible are challenging not only because of their format or work processes involved but also in terms of cost and complex legal context.

The vast majority of cultural heritage institutions already have some experience in collecting and preserving digital cultural artefacts and making them accessible to their users. Cultural heritage Institutions and professionals recognise that dealing with digital cultural artefacts now is a part of their mission. However, in practice it always comes down to institutional priorities, competencies and budgets to determine whether or how much attention is paid to collecting and dealing with the digital heritage.

It is impossible for any cultural heritage institution to meet the demands of digital age and successfully fulfil its public service mission on its own, considering the vastness of the tasks and limited resources. Therefore, it is of utmost importance for cultural heritage institutions to engage in a meaningful and mutually beneficial collaboration to address those challenges by joining forces and

sharing resources. In fact, most of cultural heritage institutions already collaborate by participating in national and thematic networks of institutions to streamline digitisation processes and to build up competences, for example, national digital libraries and aggregators and transnational professional organisations.

However, to assist cultural heritage institutions with the digital shift, the challenges they are facing have to be well understood by policy makers both on national and international level, so that adequate resources are provided to the cultural sector for dealing with digital challenges and policies are established to overcome these challenges and to allow heritage institutions to thrive in the future.

While the primary goal of any cultural heritage institution is and always will be to preserve the memory of human condition through keeping records of cultural endeavours, there is a growing realisation that cultural heritage is not only about the past, about memories. Humanity is undergoing a swift and tumultuous change – liberalisation of human values, globalisation of both economy and culture, unprecedented mobility of finance, business, people, technologies, ideas, religions, beliefs and cultures, but at the same time – increasing inequality and distrust, climate catastrophe, actors using both advanced technologies and perquisites of human nature to achieve dubious goals. In times of increasing uncertainty and confusion, it becomes evident that culture can be one of the factors that can help to restore the balance and assist in way forward to shape a democratic, law-based, culture-oriented society.

Culture plays a role both in shaping the regional identity and ensuring a sustainable growth – both long-term priorities of the CBSS. It can build bridges across borders and mend social and political differences. Cultural heritage helps to bridge the past and the future, informs the future by looking into the past and provides both inspiration and values for modern cultural life. Recognizing that cultural experiences, just as every other aspect of human life, now are becoming predominantly digital, we believe that digital cultural tools, products and services, developed by joint efforts, will help to further the concept of the Baltic Sea Region identity and a sense of belonging to the Baltic Sea Region through increased engagement and participation.

Digitisation of cultural heritage – policies and challenges

Digitisation has transformed our world and the cultural environment. Information is made available over the Internet and we carry the world in our pockets. Digital access to knowledge by means of the Internet is possible in a wide range of forms and from numerous electronic resources, including Wikipedia, blogs, newspapers, radio, television, and more. The growth of information on the Internet and unlimited access to it create new opportunities. Generations of adults, children, and young people are now accustomed to gaining access to information and knowledge at any time with just the click of a button.

Cultural heritage institutions have been an invaluable part of human history, helping to support equal access to education and propagating culture over the centuries. However, the digital age has transformed information access in ways that few have ever imagined. Massive amount of information is available for free online and easily searchable with Internet search engines like *Google*, which means that the Internet is replacing the cultural heritage institutions as the go-to sources for information.

Individuals have sound and valid reasons for relying on the Internet for their information needs. Internet search engines provide information that is self-service, free, and available around the

clock in one's own home.² Anderson states "Google has succeeded wildly at finding its users the information they want in return for a minimum investment of time and energy."³ Likewise, Timpson explains that for searchers Google offers a one-stop shopping experience and a highly usable interface.⁴

Unlike Google cultural heritage institutions have access to older, analogue material that is being gradually digitalized – books, newspapers, audio-visual works and other materials published and distributed in a given country. As such, the cultural heritage institutions can offer much higher quality information in terms of authority and credibility of the resources: there exists not only an imprimatur of excellence in their resources that simply does not exist with Google sources but also a potentially more interesting and relevant set of resources than those which are available online. This means that researchers, students, journalists, and other interested parties in society face a challenge in respect of their relationship to sources and criticism of sources.

Other technology companies are innovating in the area of digital services, developing new ways to package and provide access to information and shaping the trends in user experience of digital services that the audiences are now expecting all and any digital services to provide. Amazon, Netflix and Spotify have mastered the art of providing customized packaging of content based on their recommendation engines; Facebook, Twitter, YouTube and Instagram thrive on connecting people across the globe, creating unprecedented networks for content discovery and distribution. A range of clever technological start-up companies are pushing the envelope even further, devising new ways to experience content, from innovations in gaming and design to Virtual Reality (VR) and Augmented Reality (AR) applications.

This trend presents a great challenge to cultural heritage institutions. Is there any possibility for cultural heritage institutions to perform the function they have had for centuries in the digital realm? Unlike global technological actors, cultural heritage institutions are seriously challenged by access to funding and ability to attract top-notch talent, not to mention the obligation to strictly conform to the requirements of legal acts of a given country.

The concept of cultural heritage is mainly associated with certain governmental institutions, which are dealing with their respective areas of responsibility regarding heritage, be it monuments, documents, various tangible artefacts or library materials. The digital reality has challenged these previously clear divisions of responsibilities and pulled everyone to work together. To its credit, the cultural sector as a whole understands these challenges and responds in a number of ways. Some try to use the services of the big technology actors to their advantage; others are devising services that provide unique added value for society not offered by the commercial sector. In general, cultural heritage institutions have moved past the trivial approaches of "mass digitisation" and "digitisation for preservation". They are now increasingly looking into ways to provide societal value, support both educational and research sectors and appeal to general audiences, especially youth, as the digital approaches provide excellent opportunities to explain our history, culture and identity.

Digitisation of cultural heritage and co-operation in this field has been on the agenda for both policy makers and cultural heritage sector itself since Lund Principles and Lund Action Plan were adopted in 2001 during the Swedish presidency of the Council of European Union. One of the goals at that time was to "bring cohesiveness and shared vision to what is currently a fragmented area

2 Anderson, R. (2005). The (uncertain) future of libraries in a Google world: Sounding an alarm. *Internet Reference Services Quarterly*, 10(3/4), 29-36. doi:10.1300/J136v10n03_04

3 Anderson, R. (2005). The (uncertain) future of libraries in a Google world: Sounding an alarm. *Internet Reference Services Quarterly*, 10(3/4), 29-36. doi:10.1300/J136v10n03_04, p. 32

4 Timpson, H., & Sansom, G. (2011). A student perspective on e-resource discovery: Has the Google factor changed publisher platform searching forever? *Serials Librarian*, 61(2), 253-266. doi:10.1080/0361526X.2011.592115

of activity". A lot has been accomplished during the last two decades on European, regional and national levels – both in terms of the amount of digital cultural heritage materials available online and digital services, infrastructure and competence maintained by the cultural heritage sector.

Among the policymakers there seems to be a growing realisation that the European Union cannot be an economic project only. Without a strong cultural component, the EU project lacks heart; without addressing the issue of European identity, the EU is bound to become something that is easy to embrace on pragmatic grounds but impossible to love. The same, to a degree, can be said about the reasons why cultural cooperation should become a staple for the Baltic Sea partnership.

Culture has always been on agenda also for the EU, even more so during last years. A striking example is the Bratislava declaration of 2016, in which the EU leaders call to do more, through culture and education, to build cohesive societies and offer a vision of an attractive European Union⁵. This sentiment is echoed by the European Commission Communication on Strengthening European Identity through Education and Culture⁶, which recognises that it is in the shared interest of all Member States to harness the full potential of education and culture as drivers for jobs, economic growth, social fairness, active citizenship as well as a means to experience European identity in all its diversity.

The Communication of the European Commission "A New Agenda for Culture" of 2018 underlines that Europe's rich cultural heritage and dynamic cultural and creative sectors strengthen European identity, creating a sense of belonging. Culture promotes active citizenship, common values, inclusion and intercultural dialogue within Europe and across the globe. It brings people together, including newly arrived refugees and other migrants, and helps us feel part of communities. Culture and creative industries also have the power to improve lives, transform communities, generate jobs and growth, and create spillover effects in other economic sectors. Culture is a transformative force for community regeneration.⁷

Among other things, the Communication addresses also the digital challenges for the cultural sector, offering to develop a distinct strategy – *Digital4Culture* – in this area by 2020. It notes that the digital revolution enables new and innovative forms of artistic creation, broader, more democratic access to culture and heritage, and new ways to access, consume and monetise cultural content. Thus it proposes, among other actions, to create a network of competence centres across the EU to safeguard the knowledge of endangered heritage monuments through large-scale digitisation, set up a Pan-European network of Digital Creative and Innovation Hubs to support digital transformation, as well as to stimulate cross-overs and collaboration between art and technology for sustainable innovation on industrial and societal levels.

In response, the European Council adopted Conclusions on the Work Plan for Culture 2019-2022⁸, where it is noted that digitisation is an important horizontal issue for culture, creating new and innovative possibilities for art and culture in terms of access, expression, preservation, dissemination and consumption.

To highlight the importance of cultural heritage in and for Europe, the European Year of Cultural Heritage took place in 2018, considerably raising public and political awareness about culture and heritage in Europe, and the importance of taking this momentum forward to tap the full potential of the social and economic value of culture for Europe.

5 Bratislava declaration, September 2016. consilium.europa.eu/en/press/press-releases/2016/09/16/bratislava-declaration-and-roadmap

6 COM(2017)673. eur-lex.europa.eu/legal-content/FR/TXT/?qid=1524663124515&uri=CELEX:52017DC0673

7 A New European Agenda for Culture. ec.europa.eu/culture/sites/culture/files/commission_communication_-_a_new_european_agenda_for_culture_2018.pdf

8 Conclusions. eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XG1221%2801%29

On the policy level, the European Commission recommendation on the digitisation and online accessibility of cultural heritage and digital preservation of 2011 still defines the European level policy towards digitisation of cultural heritage.⁹ One of the recommendations is that Member States should consider ways to optimise the use of digitisation capacity and achieve economies of scale, which may imply the pooling of digitisation efforts by cultural institutions and cross-border collaboration, building on competence centres for digitisation in Europe, as well as reinforcing national strategies for the long-term preservation of digital material, updating action plans implementing the strategies, and exchanging information with each other on the strategies and action plans – a sentiment, which strongly resonates with the ideas behind this project.

Moreover, in April 2018, 26 European countries signed a declaration of cooperation on advancing digitisation of cultural heritage, pledging to work more closely together to better use state-of-the-art digital technologies in addressing risks that Europe's rich cultural heritage is facing, enhancing its use and visibility, improving citizen engagement, and supporting spillovers in other sectors.¹⁰ It notes, among other things, that emerging technologies such as big data, artificial intelligence and extended reality offer numerous possibilities to further process and use digital cultural heritage, and pledges to mobilise national and regional networks to bring advanced technologies to enable innovative use of digitised cultural resources, knowledge extraction and more engaging experience of heritage content, enhance cross-sector, cross-border cooperation and capacity building in the sector of digitised cultural heritage, including supporting the capacity of heritage professionals to manage the digital shift by acquiring and developing digital skills and knowledge.

This resonates also with the goals of the EU Strategy for the Baltic Sea Region and its Policy Area Culture, which focuses, among other topics, on the preservation and the presentation of the Baltic Sea Region cultural heritage and strengthening the cultural identity of the region, as well as developing an efficient framework for the Baltic Sea Region cultural cooperation.

These goals mirror the goals of the CBSS, with its long-term priority of regional identity as a means to bring together young people, develop and foster a sense of belonging to the region, including thorough cooperation in fields of cultural heritage and contemporary culture. For this, the CBSS has set up various regional partnerships and two specialised bodies – ARS BALTICA and Baltic Region Heritage Committee. However, CBSS also recognises that culture cannot be regarded in isolation; it needs to be integrated into other fields, mainstreaming it into all relevant policies.

There still is, however, a lot of untapped potential when it comes to effective collaboration among cultural heritage operators across borders. Since culture and identity can hardly be bound to the confines of national borders, cooperation is vital to jointly explore the regional history, culture and identity.

The countries and people in the Baltic Sea Region have a lot in common, probably more than we realise in everyday life. Besides the shared geographic, political and business space we share a long rich history of diverse cultural heritage, which to some extent is dispersed across the national borders. In the 21st century, we are all living even closer together, as in the digital world we are all immediate neighbours. There are hardly any borders in the digital space – save for legal issues regarding the cross-border accessibility of materials protected by copyright. Good neighbours always care not only for their personal space but also for their immediate surroundings, for nurturing shared common resources. This principle should apply also to the digital space.

The demand for the access to cultural heritage is growing. Researchers in history, economy, culture, art, etc. need digitised material. Other public sectors (for example, education) as well as the private

⁹ Recommendation. ec.europa.eu/digital-single-market/sites/digital-agenda/files/en_4.pdf

¹⁰ Declaration. ec.europa.eu/newsroom/dae/document.cfm?doc_id=58564

sector need digitised material. We are obliged to deliver it. Therefore, providing cross-border access to culture heritage is possible and it is a necessity for the Baltic Sea area.

As the cultural heritage sector faces an increased pressure to digitise its physical collections and preserve recent heritage, including born-digital materials, ensure long-term preservation of digital and digitised materials, and create engaging, trustworthy and innovative digital products and services for different target groups, especially young audiences, it is becoming increasingly clear that no institution – or country, for that matter – alone can be expected to tackle all these issues on their own.

Last year the Baltic Region celebrated 20 years of heritage cooperation. Initially built as a platform for reconnecting the region, to overcome the development gaps and to harmonize the heritage policies, the heritage cooperation in the Baltic Region has reached the stage when new horizons should be opened. The cultural heritage sector today goes far beyond the traditional conceptual frameworks, circles of experts or professional communities. Addressing innovations brought about by the globalisation, IT developments and mobility will be a valuable contribution to the cultural and historical integrity and joint human resources of the region.

Therefore, it is imperative to develop a sustainable network of cultural heritage institutions and professionals around the Baltic Sea Region to address these issues in cooperation, sharing their expertise and best practice, approaches and tools, and working towards new joint projects to expand their competence, share costs and work towards developing a shared Baltic identity.

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Digital preservation of cultural heritage materials

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Digital preservation of cultural heritage materials

This chapter of the report presents the common challenges faced by cultural heritage institutions when managing the digital heritage, showcases examples of successful collaboration in the Baltic Sea Region that have helped institutions to overcome vexing digital curation problems, and suggests actions for enabling new collaborative efforts on both national and Pan-Baltic level.

Current challenges

The cultural heritage institutions are increasingly tasked with the collection of cultural heritage, which is born-digital, as a part of their public service mission. This development introduces a range of challenges of both technical and legal nature, as well as other issues regarding both capacity and competence of cultural heritage institutions.

This report uses the term “born-digital content” to denote resources that are created and managed in digital form only, without an analogue original or equivalent. Examples of such cultural heritage materials include:

- digital documents as public records handled by archives;
- e-mail archives;
- e-books and audiobooks, as collected and preserved by libraries;
- digital photographs, the fastest growing type of born-digital content;
- digital video and TV;
- digital music produced and disseminated over internet-based platforms;
- websites, blogs and web-based content, harvested and preserved by web archives;
- digital art collected by museums and galleries;
- oral histories as recorded and collected by museums;
- digital datasets, both static and dynamic, e. g., research data produced by academic institutions and collected into open data archives; or government datasets managed as public registry databases;
- digital media publications, mostly published on the web;
- 3D images, e. g., scans of monuments and buildings;
- computer and video games collected in some countries as part of legal deposit;
- virtual reality simulations in form of games and learning objects, as well as reconstructions of historic contexts;
- software that may fall under the legal deposit rules, acquisition policies of memory institutions or be necessary for rendering some digital objects usable over the long term.

These developments affect different types of institutions to a different degree, with archives and national libraries being among the most heavily affected when it comes to preservation of born-digital cultural artefacts. Other cultural institutions, on the other hand, are mostly concerned with using digital services that provide access to cultural materials to enhance their services. For example, public and university libraries increasingly expand their collections with materials – often in form of subscription – published and distributed in digital form, to provide researchers, students and the general public with access to current information. Both publishers and authors on the one hand and readers on the other hand have gradually come to accept public libraries “lending” e-books; universities and university colleges have a long history of acquiring licences to databases of research publications from publishers. The number of physical collections, on the contrary, is decreasing.

National libraries, as well as archives, however, have no choice when it comes to preservation of published materials as a part of their public service mandate. They are in no position to favour digital materials over physical ones, or other way around – they have to find ways to collect and preserve both. This includes preserving digital materials way beyond the point the commercial parties preserve the digital publications themselves – similarly as in the analogue world national libraries serve as repositories of out-of-print material.

This requirement introduces a range of legal uncertainties and technical challenges. For example, e-books and audiobooks generally are treated as services, not publications, making them exempt of requirements of legal deposit schemes. Digital music disseminated exclusively through streaming platforms is not collected by heritage institutions because of the lack of workable mechanisms for capturing this type of content. Some digital data types, like dynamic datasets, app-based digital media publications (magazines, newspapers, games, etc.) and streamed content are sometimes too complex or expensive for heritage institutions to handle. Moreover, as the mandate of national libraries and archives is generally limited to national interest, it is clear that such a collection cannot be limited to material of domestic material only, especially in the digital world, where materials of national interest are routinely published on digital platforms operating outside the national jurisdiction, which puts an onus on solving the issues of cross-border preservation of cultural materials.

The phenomenon of preserving born-digital heritage has been under scrutiny internationally for some years. More recent studies have had to repeat the conclusions that the OCLC first reported after carrying out surveys in the US, Canada and the UK and Ireland (in 2010 and 2013), which found that born-digital collections were “undercollected, undercounted, undermanaged, unpreserved, and inaccessible” (OCLC 2010; OCLC 2013). The Dutch National Coalition for Digital Preservation (NCDD) surveyed the situation in the Netherlands and concluded that “the collection and sustained storage of born digital heritage by heritage institutes in the Netherlands is still in the early stages. Both the amount of material collected and the ways in which it is managed and preserved differ markedly between domains, and a uniform approach spanning all domains is, for the moment, impossible. Within domains, too, there are large differences between individual institutes on the approach taken to the problems associated with born digital heritage. There is a need for active domain-based knowledge centres and networks.” (NCDD 2015). The 2017 New Zealand study concluded that “the vast majority of New Zealand GLAMs are collecting or expect to soon be collecting born-digital material, far fewer have the policy, staffing, and infrastructure in place to care for these collections” (NLNZ 2017). A key theme running throughout various surveys and analyses and across institutional types and sizes has been the lack of staff with the knowledge and expertise to manage born-digital heritage material.

A taxonomy of main issues with digital preservation of recent and born-digital cultural heritage content emerging from these international studies is the following:

- Institutional capacity to handle growing volumes of digital content:
 - Lack of staff with the necessary training and expertise;
 - Time to plan and prepare for new types of content making its way into archives;
 - Scarcity of funding – both institutional and external for developing new services for born-digital content;
 - Lack of institutional mandate, strategies, policies and regulations that cover new types of digital content;
 - Lack of institutional infrastructure to support the acquisition and management of rapidly growing volumes of digital content.

- Methodological issues in areas where best practice is yet to emerge:
 - Appraisal of new types of digital objects and media for archiving;
 - Machine-actionable preservation policies, rights and access controls;
 - Use of software emulation tools for preservation and access;
 - Planning the cost of acquisition and preservation of born-digital collections.

- Collaboration:
 - Need for further research and best practice policies on emerging complex, dynamic materials (e. g., mobile apps, databases, web objects, objects treated with proprietary compression algorithms, files that require proprietary software to be rendered or accessed, etc.);
 - Need for ways to encourage further collaboration and avoid reinventing the wheel;
 - Need for collaborative training and guidance to overcome the skills gap.

- Legal:
 - Need for collaborative research and policies regarding the rights situations surrounding preservation of and access to born-digital objects and software;
 - Legal situation of web archives in terms of both collecting as well as making the archives accessible.

- Technological:
 - Lack of accessible technology tools for processing born-digital objects, for example, description, compliance testing, migration, streaming data access;
 - Lack of in-house technological infrastructure or lack of funding for buying infrastructure as a service solution to support the storage and management of rapidly growing digital collections;
 - Lack of digital asset management system in smaller institutions.

The two top-ranking challenges internationally are staff expertise and availability of technical infrastructure that lend themselves easily to collaborative projects and service development. The next ranking issues of institutional support, workflows and business processes are to be solved on the institutional level, although best practice case studies and success stories can be used for advocacy.

To confirm the correspondence of the perceived problem field between international studies and situation across the Baltic Sea Region, as a part of project a survey of Baltic Sea cultural heritage institutions was performed, sourcing opinions of those institutions regarding their concerns with preserving contemporary cultural heritage materials. These resonated largely with the documented international experience.

Shortage of competencies

According to the survey, the most challenging issue in the context of digital preservation in cultural heritage institutions across the Baltic Sea Region reportedly is the lack of competencies and staff.

For example, the National Library of Estonia reportedly has engaged 20 full-time equivalent (FTE) positions in activities of archiving and digitising of cultural heritage. However, only two staff members are involved specifically in digital preservation and preservation planning, and four are web-archiving specialists. The National Archives of Estonia has three FTEs involved in digital preservation and three FTEs on IT side. Other Estonian memory institutions have on average one or two FTEs envisaged for digital preservation. Despite a fair number of specialists being involved in digital archiving and preservation workflows, this certainly is not a sufficient number to cope with the oncoming quantity of digital content.

In Latvia, as the survey has revealed, there is either none (17 answers) or only one (15 answers) FTE position at an institution responsible for working with born-digital collections. Only a handful of larger institutions report having two or more FTE positions for this task.

Institutional priorities

In many institutions in Estonia, digital preservation does not have as high a priority internally as it deserves, being the core service in support of user access services. This is reflected in and connected to other issues like inadequate funding, lack of competencies, and insufficient numbers of staff.

In Latvia, most of the institutions represented by the respondents intend to start paying more attention to collecting or managing oral history, audio-visual and other data sets over the next two years, as well as to continue on collecting or managing photographs, publications, reports and other born-digital archival materials.

When asked about documented policies or workflows for digitisation programme, only seven respondents reported existing written policies or workflows for digitisation. Four more respondents are planning to develop and implement them. However, an overwhelming majority of respondent institutions (35) have no documented policies or workflows for their digitisation programmes.

A clear majority of the respondents (41) report that their institution does not have a digital content management system, a digital asset management system, a digital preservation management system or an institutional repository. Only representatives of six institutions indicate that they do use using some kind of digital asset management system, out of which two use a digital preservation management system and one uses an institutional repository. A university e-resources repository and an institution record keeping system also were mentioned as preservation systems.

Scarcity of funding

Financial resources to develop and expand digital preservation services should be commensurate with the growth of digital content and demand for its use. However, the approach to funding in many cultural heritage institutions still is predominantly geared towards “analogue” or traditional

services, e.g., traditional services that have been running for decades are still continued at the same scale and level of guaranteed funding, whereas the “new” digital services need to justify their existence and often are required to attract funding from external sources.

Technological difficulties

Where there are digital preservation systems in cultural heritage institutions, they have been implemented for quite a long time and no longer meet the preservation needs of new types of born-digital objects and the ever-more complex access control requirements. Digital archive software implementation project requires thorough analysis and takes several years of focussed effort that comes at a significant cost. The National Library of Estonia, for example, is currently in the process of procuring and implementing a new digital preservation system. Even such internal projects could potentially lend themselves to fostering cooperation in the area of digital preservations, as the National Library of Estonia would happily share the analyses it conducted while preparing the public tender documentation.

There are also integration problems between software solutions that create digital objects and those that archive them. For example, it is complicated to import digital documents from document management systems into digital archives as the document management systems rarely are developed in a way that supports the export of documents into another system.

Legal restrictions

Some types of digital objects are not yet being collected and preserved by cultural heritage institutions. Digital music and audio is the most notable example. Most often covered by legal deposit legislation, it has fallen out of the remit of libraries that collect legal deposit simply because there is no effective way of collecting the music files that are disseminated globally across the Internet. As the more traditional methods of music distribution – CD, DVD, LP – are decreasing, libraries are failing to collect, describe and preserve a significant share of contemporary music production. The legal deposit legislation is often limited to hard-copy music carriers only and libraries have not succeeded in negotiating a voluntary deposit of digital files with the rights owners. In many countries, legal deposit legislation still does not cover e-books and audiobooks, and is vague about the web archiving responsibilities.

All of the national libraries in the Baltic Sea Region archive national web resources according to the Legal Deposit Laws of the respective countries, while archives collect certain types of born-digital archival content, which sometimes leads to partial duplication of efforts. For example, while the National Library of Latvia archives the content of websites published in .lv domain, the National Archives of Latvia preserves websites as a whole of liquidated state and municipal institutions, including its technical files and databases.

Other institutions collect born-digital archival content according to their collection policy; for example, they collect web resources as a part of local history research efforts. Few institutions collect materials from sources other than national websites when collecting the web content – for example, *Twitter*, *Facebook*, *YouTube*, blogs and even websites from other countries. The majority of respondents (42), however, indicate that their institution neither collects born-digital archival content, nor does web archiving.

In an effort to step up the preservation of heritage materials in digital format, Estonia has recently updated its legal deposit legislation which allows to collect not only e-books but also the digital versions of all printed publications. A similar model is operational for academic publications in Sweden.

In addition to these already well-known issues, the following new concerns were raised during the survey:

Workflow and quality issues

The born-digital material that has already been archived varies significantly in quality and technological complexity. Digital archivists have to be confident that all required metadata are present and included with the material; however, it often happens that only digital files themselves are handed to the archive, without any metadata describing its original context. If metadata are lost, no proper long-term digital preservation can be performed.

Confusing terminology

Some professionals have indicated that terminology of archiving and preservation poses a problem. For example, an Estonian professional notes that there is no clear agreement on what exactly does 'long term digital preservation' mean, as in practice it is often implemented as simple file storage. This dissonance is especially evident when discussing long-term preservation with professionals in the IT sector, who tend to think that storing back-ups of documents for five years can already be considered long-term preservation. That terminology is important indeed is signified by the fact that in Latvia the librarians and archivists are working on a common terminology of digital preservation.

Education and curricula

Several institutions, for example, the National Library of Estonia and the National Library of Latvia, report the shortage of advanced technical training and professional development opportunities for their preservation staff. Despite the digital curation being included in university curricula, the new graduates rarely end up taking jobs in heritage organisations, therefore institutions have to train their staff by themselves or through professional training courses, which, however, are not readily available on the local market.

A need to converge the curricula that cover digital preservation between universities and departments within universities that teach this subject was also identified. For example, at the University of Tartu, digital preservation is covered by both the Department of History, as part of archival studies, and the Social Sciences Department, as part of information studies.

Software preservation

Preserving smartphone apps and computer software that we all use on daily basis should be part of the remit of memory institutions – today it is hard to imagine our life without mobile applications and at least some of them deserve to be preserved for future generations. For example, the National Archives of Estonia understands the necessity to collect computer games and other software, but is unable to do so due to the lack of resources. National libraries tend to collect various software and multimedia products that are included as inserts into publications on different storage media (e.g., CDs and DVDs) and as a part of their web archiving efforts. Many of these products, however, require specific software to be used or viewed, e.g., browser plug-ins for viewing dynamic content or even adverts on older websites. It can be expected that in the future libraries will receive more books with augmented reality components and books that could be read only by using a certain app.

Preserving the context

Museums typically collect only items of museological value, e.g., items with a narrative that is related to the preserved item. In this case both the object and its context are valuable

and must be preserved. However, in cases the item is too fragile or has not survived, even a description on its own is of value and can be used to construct a virtual or augmented reality representation. Similarly, oral history recordings form a significant body of evidence in the field of intangible heritage.

Co-ordinating digitisation efforts

As many cultural heritage institutions hold a copy of the same item – this is especially true for libraries, but refers also to museums – it would make sense to co-ordinate the digitisation plans between institutions so as to avoid duplicating work and decrease the usage of resources, including those necessary for preservation.

In summary, the highlighted issues show that a collaborative approach to how and what to collect, as well as guidance and assistance in developing processing workflows, would aid in better preserving and providing access now and in the future to our born-digital cultural heritage. Many of the problems listed are quite narrow and specific to institution or data type. Moreover, cultural heritage institutions, as the data of survey reveal, are not particularly geared up for collaboration, especially regional cooperation with relevant institutions across border. However, there are also some best-practice stories, presented in the next chapter of the report.

Best practice

There are numerous examples from all the Baltic Sea Region countries of cultural heritage institutions collaborating around the topics of digitisation of cultural heritage and within their particular domains (i.e. libraries, archives, museums, galleries). Several institutions have also been active in European and international networks on digital preservation topics (e.g., *Digital Preservation Coalition*, *Open Preservation Foundation*). Some institutions have participated in EU-funded research and development projects connected with digital preservation (e.g., *4C*, *EoD*, *NEO*, *eARK*, *Preforma*, *DCH-RP*, *DC-Net*, *Nestor*). There are, however, very few examples of collaboration between cultural heritage institutions in digital preservation around the Baltic Sea area.

Only the national level institutions – national libraries and archives, larger museums, universities and their institutes – indicate that they have cooperated with institutions of other Baltic Sea countries in the field of digital preservation. The majority of respondents (45), however, state that their cooperation with other institutions of Baltic Sea countries is low or non-existent.

National cooperation as a prerequisite

Despite the abovementioned there is a certain potential to develop regional cooperation among cultural heritage sectors, one of the reasons being the already existing collaboration networks on the national level. For example, all three Baltic States have set up national-level digitisation programmes for cultural heritage that follow defined roadmaps and systematically digitise collections that are agreed between memory institutions and vetted for duplicates.

Developing a full digital preservation capacity at every cultural heritage institution with preservation mandate is an expensive and time-consuming endeavour, requiring significant investment into both skills and competence, as well as software and hardware resources. In smaller countries, a more even level of service across the sector can be achieved if institutions make use of digital preservation services of other institutions. Typically, larger national-level heritage organisations can act as competence and service centres for smaller institutions that are less generously funded but

still have a preservation remit. Becoming a service provider requires a different mind-set and new capabilities from institutions that have been developing digital preservation capability to meet their own needs. Estonia and Latvia have recently carried out the analyses to define a nation-wide service architecture for digital preservation that relies on competence centres as service providers for other institutions. The analyses also touch upon the possibilities of relying on public and commercial cloud service providers for some layers of the preservation services. In Finland, the state-owned IT service provider CSC is already providing digital archive and preservation service to larger memory institutions as a cloud-based service, demonstrating the viability of this model.

Smaller scale collaboration

The Baltic Sea Region's cultural heritage institutions have been known to collaborate around some smaller topics, such as linked open data or education in digital preservation.

National archives of Sweden, Estonia and Iceland have collaborated with research and business partners to develop competences and services around linked open data (LoD) in archives. The project called YEAH and funded by *Vinnova* in Sweden, with support of the governments of participating countries, produced a handbook for memory institutions on using linked open data to make their digital collections more visible and to support digital humanities researchers. It highlighted the possibilities of LoD with three pilot projects that involved further institutions from outside the project (the Stockholm City Archives and the National Library of Estonia). The finding aids of several of these institutions have by now been published as linked open data on their respective national open data portals.

University of Tartu and the National Archives of Estonia collaborated in developing and running an e-learning course on digital archiving. It is offered for a fee through Open University and has proved popular not only in the heritage sector but also among data management specialists. Digital preservation experts of the National Archives of Estonia are also leading the course on digital preservation at the University of Latvia.

Recommendations

Looking at the analysis of issues and successes described above, it follows that in the area of preserving contemporary digital heritage, active domain-based competence centres and networks would be easiest to achieve. At this stage of maturity, domain-specific solutions are easier to implement, and relatively limited efforts can yield significant impact for many institutions. Competence centres that share knowledge and are ready to provide also practical services can and should work across borders.

Institutional level recommendations

All participants of the interviews and the focus groups consider it important to raise the priority of digital preservation topics in cultural heritage institutions. The popularity of digital collections among users is constantly reaching new heights – digital archiving and preservation should be in place to support easy access to digital collections today and tomorrow. To achieve this goal, cultural heritage institutions should prepare their policy frameworks and plan for funding in the coming years for these emerging requirements:

- Software tools for digital archivists and preservation specialists should become more user-friendly and simpler to manage also by staff members who do not possess high level IT skills. This calls for new generation of digital archive and preservation systems to be implemented in institutions, or reliance on preservation services from other institutions.
- Memory institutions should be ready to archive and preserve new, sometimes experimental file formats and multi-format complex digital objects that are entering everyday use, for example, multimedia objects, 3D objects, augmented reality objects, and virtual reality objects.
- Memory institutions have to upgrade their digital user services to support emulating older software platforms, user interfaces, web browsers and computer games. Emulation solutions can keep digital preservation costs under control and provide more authentic user experience.
- Memory institutions need to train the staff involved in digital preservation. As the amount of digital content to be preserved is swiftly increasing, it can be safely predicted that soon there will be a serious lack of competent staff. Options for continued education are also necessary, as skills have to be regularly updated to follow the latest advances in technologies.
- Memory institutions must encourage international cooperation in the sector. The Baltic States are small and there are not many specialists in the field, therefore the international and/or the Baltic Sea cooperation would be a great option for the future. That also means that the institutions in each country have to grant the financial means for international cooperation.
- Apply for grants in the field of digital preservation. Grants and projects would help to implement smaller projects: create preservation policies, organize meetings, training programmes and conferences for the experts, conduct digital humanities projects (text and data mining, automated keywording, tagging, etc.).
- Raise awareness of policy makers of the issues of digital preservation. Better understanding of the importance of digital preservation by policy makers should help to ensure the sustainability of project results and raise the profile of digital preservation activities within the cultural heritage sector and general society.

National level recommendations

On the national level, service architectures based on competence centres with already existing capabilities for digital preservation should be considered as a means of ensuring that digital heritage content is archived and preserved continuously. Such centralised service centres can be domain based (e.g., a large library providing services to other libraries or an audio-visual competence centre offering preservation services to all memory institutions with audio-visual digital collections). A successful example of a national centralised digital preservation service exists in Finland. To follow this lead and to empower memory institutions, national level initiatives should:

- Encourage and support cooperation between memory institutions to agree upon and set technical requirements for the preservation service that they require.
- Encourage the formation of competence centres that have the capacity to keep digital preservation specialists in their employment and then build services for other institutions.
- Request that skills related to digital curation are included in the curricula of universities and professional training courses, not only as part of archive and library education but also for data managers, data scientists and digital humanities.

Recommendations for co-operation in the Baltic Sea Region

Despite the infrequent collaborations that memory institutions in the Baltic Sea area have had around digital preservation topics in the past, there are networks, like *Bibliotheca Baltica*, and topics that future co-operation can be built around. Although there is very little inherently regional in digital preservation, our shared history, similar legal frameworks and principles of what heritage types are collected by which type of organisation allow making some suggestions for improving the state-of-art in digital curation in the Baltic Sea Region.

As many respondents of the survey reveal that they lack in digital preservation competencies, the most obvious first step would be to create a virtual Baltic Sea Region competence centre in digital preservation, enabling effective pooling and transfer of knowledge and best-practice.

The first steps in creating such a centre would be:

- Support the creation of a network of digital preservation specialists of the Baltic Sea countries that can exchange best practice, discuss emerging topics and technologies, agree on standards, policies and terminology in this field on a regular basis.
- Invest in collaborative analysis of emerging technologies and types of digital objects that will be reaching cultural heritage institutions in the nearest future, to produce common approaches to safeguarding the new types of born-digital heritage. The results of such analyses would be made available to all countries in the form of guidelines and actionable roadmaps.
- Encourage and support the development of shared regional guidelines for appraisal, collection development and management of digital cultural heritage. For example, agreeing on which apps and software should be collected and preserved by which type of memory institutions, agree on ways to support emulation platforms for using complex digital objects.
- Support the creation of a joint training programme for preservation specialists in the Baltic Sea countries. The training programme should encompass not only e-learning but also professional visits to other institutions in neighbouring countries and result in a certificate of achievement.
- Support the creation and maintenance of active domain-based knowledge centres and networks that share the same digital data types and concerns about preserving them.
- Encourage cooperation aimed at developing new curricula in digital preservation at universities and other higher education institutions.

The Baltic Sea Region is large enough to have a variety of materials and small enough to ensure that all the specialists can work together. We share the same challenges from the past but still have a lot to learn from each other.

II

Digital cultural heritage for strengthening a regional identity

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Digital cultural heritage for strengthening a regional identity

This chapter of the report deals with options to use digitised cultural heritage materials for strengthening a regional identity across the countries of the Baltic Sea.

Considering heritage it is important to explore how the very process of making heritage accessible transforms instinctive consciousness itself, and to investigate not only how technology has played a role in these processes, but also to reassess the importance of regionality in all these discussions.

The instinctive consciousness that we call “heritage” seems to display some very clear and basic markers. We take possession of it, we safeguard it, with all due respect to the plethora of digitization projects launched on an almost daily basis, we pass it on most effectively not with the help of new platforms and new technologies, but, first and foremost, through conversation. As Sherry Turkel, one of the foremost contemporary authorities on the social aspects of science and technology, has postulated, our greatest challenge may not be navigating new technical innovations and providing access to a yet more comprehensive materiality, but rather reaffirming the power of talk and reclaiming conversation. Cultural heritage seems inextricably bound to conversation, which facilitates a knowledge base secured primarily by the participants’ ability to detect emotional and behavioural patterns.

This does not mean that we should trivialize the close connection between technology and heritage, and not only in the digital age, but even historically. In almost every generation, technology has cut off children from adults. As the clinical psychologist Peter Fonagy has observed, paradigm shifts brought on by technology have a tendency to disrupt crucial learning relationships, such as cross-generational face-to-face contact. One need only to look around to realize that the socializing agent for a young person today most frequently is another young person, presumably not a circumstance for which our brains were designed. The digital is not the problem in our heritage discussion, but rather what the digital pushes out. Heritage is suddenly more problematic when its processional aspect is personalized to such a degree that it becomes isolated and thus loses its sustainability.

However, it must be recognised that the Baltic Sea Region has for centuries been steeped in orality. Issues of cultural heritage have not always been steered by technologies of literacy, but rather by direct physical engagement and contact. This means that heritage was always been open to adjustment and reinterpretation, while at the same time characterized by participation and interactivity. As long as oral communication channels were open and accessible, individual and group identities intermeshed and intertwined. Oscillating between innovation and habituation, between novelty and stability, in itself inherently repetitive, orality has built-in means of selection, which gains its strength from the tension between radicalism and conservatism. Orality encourages expanding the limits of the allowed, yet clearly tempers excesses. Not challenged by set canons, oral cultures are difficult to reign in even with strict censorship.

Technical paradigm shifts serve as catalysts for the creation of authoritative heritage discourses. As soon as these discourses are codified, the mechanisms of orality are marginalized, creating what we can regard as secondary orality – orality with an element of self-consciousness, based on writing and print, with an emphasis not primarily on transmission, but rather the notion of inheritance itself. Content gains the upper hand. The process itself is depreciated. Heritage steered by technologies of literacy has trouble with the notion of “the living”, with “the contemporaneousness”, with “existing in the present moment”, and “currently in use”.

Technologies of literacy have created deep tension. This tension simply does not disappear. All attempts to marginalize orality meet up not only with resistance, but also seem to give rise to modern innovative cultures of communication that utilize communicative patterns that are fundamentally oral.

Concept of cultural heritage

Cultural heritage is part of almost all political areas in the European Union, for example, regional policy, agriculture, common market, and environment. Cultural heritage is a far-reaching concept that affects many areas of everyday life. On the one hand, there are definitions of publicly recognized institutions of cultural heritage, like libraries, archives, museums, and other smaller or larger institutions of the culture of remembrance. The definitions are often “essential,” in other words, not taken from the processes of tradition.¹ E.g., they are described as “unique,” “most notable,” providing a paradigmatic witness of a special period or landscape, and so on.

Looking from the perspective of cultural theory, other definitions exist. In German “Volkskunde”, adaptation of folklore for touristic goals has been discussed under the label “Folklorismus.”² The official cultural heritage is a matter of power, politics, and advertising, if not propaganda.³ It is easy to notice how quickly the definition of cultural heritage changes with the change of political systems.

Official cultural heritage is thus ordered “from above”, but individuals pass on tradition. In early folklore studies, tradition had not actually been associated with individuals. The speech came only from tradition bearers (German: *Traditionsträger*). As Tim Tangherlini suggested, tradition bearers should be better referred as “tradition participants,” because individuals are not only passive actors, but actively intervene in the tradition.⁴

This aspect has been overlooked or underestimated in the official definitions of cultural heritage. The acceptance of the cultural heritage by the population, which consists of different social groups, networks, and individuals, is decisive. In this sense, cultural heritage is the result of a selection process. Only what is of benefit to the individuals is traded, no matter how and where this “benefit” exists. Many families hold special objects, photos, or other artefacts, with certain stories connected to them.⁵ They are passed along from one generation to another generation, until someone, who does not consider them important, throws them away. This would not have happened if the artefacts had been previously given to an archive or museum. Would they still make sense in this changed context?

One of the greatest achievements of the 20th century has been the recognition of fundamental human rights and freedoms. Societies and individuals have the full rights to take part in cultural life, to practice and openly share with others their cultural expressions, to enjoy culture and to participate in shaping their cultural heritage and obtaining benefits from it. Yet, in spite of the many

1 Tauschek, Markus: *Kulturerbe. Eine Einführung*. Berlin 2013, pp. 26 sq.

2 See eg. Assion, Peter: *Historismus, Traditionalismus, Folklorismus. Zur musealisierenden Tendenz der Gegenwartskultur*. In: Jeggle, Utz et al. (edd.): *Volkskultur in der Moderne. Probleme und Perspektiven empirischer Kulturforschung*. Reinbek 1986, pp. 351-362.

3 See Kirshenblatt-Gimblett, Barbara: *Theorizing Heritage*. In: *Ethnomusicology* 39, pp. 367-380; ead: *Destination Culture. Tourism, Museums, and Heritage*. Berkeley, Los Angeles 1998; Berger, Karl C.; Schindler, Margot; Schneider, Ingo (edd.): *Erb.gut? Kulturelles Erbe in Wissenschaft und Gesellschaft*. Wien 2009; Hemme, Dorothee; Tauschek, Markus; Bendix, Regina (edd.): *Prädikat HERITAGE. Wertschöpfungen aus kulturellen Ressourcen*. Berlin 2007.

4 See Tangherlini, Timothy R.: *Interpreting Legend. Danish Storytellers and their Repertoire*. New York et al. 1994, p. 32.

5 See e.g.: Tuomi-Nikula, Outi: *Perintönä perinnön vaikeus. Keskusteluja kulttuuriperinnöstä saksankielisellä alueella*. In: ead., Riina Haanpää and Aura Kivilaakso: *Mitä on kulttuuriperintö?* Helsinki 2013, pp. 31-58.

splendid success stories of individual digitalisation projects, cultural heritage, especially at the regional level, is still a little exploited means of enabling sustainable development and contributing to the welfare of the local communities.

Sustainable development and the welfare of people is affected by and depends on the extent to which people are able to understand and interact with their environment, preserve and share their values, uphold that which is special while adding new experiences, and react to current challenges. All this embodies heritage – in sense of remembering, retelling, enacting, practicing, performing, listening to, learning, recalling, etc. – thus shaping individual emotions and multi-faceted identities. While nation states are responsible for mobilising their heritage as a resource which enhances national identity and sense of self and belonging, it is besides promoting dominant heritage discourses that awareness of regional heritage discourses shall be developed and promoted to expand the processes of remembering, sharing and discussing values and experiences.

Recognition of the integrated and complementary character of all the heritage categories, especially paying attention to values that are of significance on regional level to other regional communities, offers a unique tool for nurturing local narratives, promoting increased involvement and providing space to all the layered emotions, experiences and memories

Such a view changes the very conception of heritage and memory institutions – heritage is no more a passive subject to conservation measures, collecting or management, nor is it a limited list of accepted heritage objects, nor interlocked in debates of experts and politicians. Heritage can also be defined as a meaning-making process that recognises the diversity of the individual components that make up the environment and the particular characteristics that contribute to the regional.

Cultural heritage is a result of a negotiation process between the interests of individuals and preserving institutions, which have imposed guiding principles of preservation. Cultural heritage is a matter of acceptance of tradition. The official cultural policy can only try to control the processes of acceptance in the sense of ethical educational principles (however, they often only serve to preserve political, economic, and other power relations).

Concept of national and regional identity

Sense of identity plays a central role in defining sense of commonality, place, belonging, streamlining values, beliefs, behaviours. Culture and heritage are integral to identity and to perceptions of this identity. Moreover, heritage practices and promotion of culture help individuals and communities to become more aware of their own roots and of their cultural and social identity, and at the same time highlight the role of these aspects as crucial for their self-awareness and realisation within community. Mastering this, people engage in constructing identities for themselves by using the process of heritage management, remembering and practising of traditions as a bridge to understand one's past and to develop visions for the future.⁶

Recognising this weight, since the 19th century culture and heritage have played a major role in the discourses of nationalism as they help to bind communities and to legitimise certain power structures and establish certain defined representations of a nation⁷. Indeed, promotion and emphasis on certain selected memories, sites and symbols have helped to foster a sense of

6 Epstein N., Heritage as an Object and Product of Identity – Conditions for Using World Heritage in Education in Albert M.-T., Gauer-Lietz S. (eds.), *Perspektiven des Welterbes. Constructing World Heritage*, IKO Verlag für Interkulturelle Kommunikation, Frankfurt am Main, 2006, pp. 38 – 47.

7 Smith L., *Uses of Heritage*, Routledge, New York, 2006, p. 18.

cohesion and consensus within a community⁸. Heritage serves to establish common grounds that validate certain values yet it also frames the development of new experiences and memories⁹ that can never be fully controlled, fixed in quantity, limited or frozen in time. However, such an approach by definition ignores the diversity of various sub-cultural and social experiences as well as the recognition of all the diversity of cultural expressions¹⁰ leaving this an aspect to be solved, if ever, on either local, national, regional or international level.

Identity is a social process. Considering national identity, the attributes defining it are community, history, territory, citizenship, common values, and traditions¹¹. According to the British policy theory professor David Miller, "a nation is a community (1) constituted by shared belief and mutual commitment, (2) extended in history, (3) active in character, (4) connected to a particular territory, and (5) marked off from other communities by its distinct public culture. The modern idea of nationality is distinguished from older beliefs about cultural differences between peoples by its emphasis on collective self-determination. Although national identities involve elements of myth, this does not show that it is irrational to embrace them. Nor do they prevent individuals making their own choices about how to live."¹²

The key question in understanding regional identity is not how the individual and the society are integrated in space, but how can the socio-spatial be conceptualized in the 'production' of the individual / collective and vice versa.¹³ Based on the theory of the British social geographer Edmund William Gilbert, "region is therefore understood primarily as a set of cultural relations between a specific group and particular place; it is a people-bound category, though not inevitably bound with individuals but rather connected with social communities."¹⁴

Links between cultural heritage and identity are often codified in national level policy documents, for example:

Lithuania:

- Cultural heritage is perceived as a resource that determines each person's identity; the heritage is actualized in the form of active dialogue between all stakeholders.

Sweden:

- Cultural policy is about promoting living and independent cultural heritage. This area covers the conditions for cultural practitioners and people's access to culture in all its forms, and how cultural heritage is to be preserved, used and developed.

Germany:

- Holds an agreement on the identity-creating value of cultural heritage and on the benefits of its digitization, which above all are:
 - making it available and communicable and securing it;
 - digitisation should help to overcome barriers such as the boundaries between professional and amateur actors of science and culture.

8 Byrne D., *Heritage as Social Action* in Harrison R, Fairclough G., Jameson Jr. J. H., Schofield J., (eds.), *The Heritage Reader*, Routledge, London and New York, 2008, pp. 148. – 173.

9 Smith L., *Uses of Heritage*, Routledge, New York, 2006, p. 81.

10 *Ibid.*, p.29.

11 Smith A. *Nationalism and Modernism*, 1998, New York: Routledge, p.29.

12 Miller D. *Ethical Significance of Nationality*, In: *Ethics*, Vol. 98, No. 4, 1988, p. 648.

13 M. Michael; *constructing identities*. London, 1996, p. ..

14 E.W. Gilbert and B. Litt, *Geography and regionalism*. In : G. Taylor (ed.) *geography in the twentieth century*. London, 1960, p. 345-371

Latvia:

- Cultural heritage is perceived as a cultural capital that is to be used to promote the sense of belonging and participation of the society in cultural processes. The task of cultural and cultural heritage institutions, as well as cultural education institutions, is to promote individual growth and education and to unlock the creative potential of any person, as well as participation of as large audience in cultural processes as possible.

Best practice

As cultural heritage is viewed primarily as resource for defining national identity in the national cultural policies, digital cultural heritage resources are usually developed with national – and often local – audiences in mind. There are just a handful of examples where cultural heritage institutions of the Baltic Sea Region have collaborated in creation of digital resources with intent to explore shared regional heritage. In the absence of such examples, we looked into the most usual ways the cultural heritage institutions are making available their digitised materials and explored the options to potentially use those resources for interest of people in other parts of the region.

In general, there are two types of digital resources of cultural heritage – universal or sectoral resources of national significance and smaller collections targeted at special interest groups. Both can be extended in their use to target audiences outside the originally intended groups.

Resources of national significance

All of the Baltic Sea countries have developed national level digital cultural heritage resources, in most cases funded by the central government, often with a help of the EU structural funding, and run by cultural heritage institutions of national importance. Though the sectoral coverage and organisational model of those resources vary, they typically offer digitised collections of more than one institution, cover a wide variety of object types and offer different services for users.

Lithuania

The Virtual E-Heritage System (VEHS, epaveldas.lt) is the main national digital cultural heritage resource in Lithuania that provides fast and easy access to thousands of works of art, books, newspapers, manuscripts, maps, and audio recordings. It introduces to a unique and rich Panorama of Lithuanian cultural heritage. VEHS is equipped with an integral thesaurus containing historical places, names and chronology, which serves as rich repository of information and as an effective semantic search tool. Currently VEHS is undergoing a number of improvements as a part of the project “Developing of a Virtual Cultural Space That Corresponds to the Public Needs: The Gateway to the Digital Cultural Heritage, 2018-2020” in order to broaden the scope of digitized content and increase the number and quality of the services provided. The main challenge is to ensure the high quality of the data for users and solve the problem of under-utilization of the VEHS and the portal ePaveldas for the dissemination of the digitized cultural heritage.

The focal point of the project is to modernise the VEHS system by improving organizational and technical conditions for coordinated and high-quality digital cultural heritage preservation, introducing a single access point for searching of information in various e-resources, improving the accuracy of search results, creating new services for new groups of users and adding significant amount of digitised cultural heritage objects.

An important aspect of the project is introducing processes that are more streamlined and centralising the infrastructure behind them, linking the existing information systems to a single network and accessing them through one gateway to optimize search of cultural and historical content and help to carry out monitoring and management of digitization processes at national level.

For the benefit of users, nine new digital services will be introduced as a part of the project to support such use scenarios as content linking, content management, content analysis and research, creation of personalised virtual exhibitions, map display, playing of sheet music, as well as virtual and augmented reality exposition.

Latvia

Currently, the biggest online repository of digitised materials is the Latvian National Digital Library (digitalabiblioteka.lv) created by the National Library of Latvia. Its aim is to ensure wide availability of Latvian cultural heritage to society in the digital environment, to serve as a basis for strengthening national identity, developing cultural, scientific and knowledge society and creative industries, and ensuring the long-term preservation of national cultural heritage in digital form, creating opportunities for the reuse of the digital cultural heritage in new products and services, as well as its integration into a unified European and global cultural digital space. At present, the Digital Library holds digitised collections of newspapers, maps, books, sheet music, audio recordings, and pictures.

Currently, the repository is being expanded by implementing a project funded by the European Regional Development Fund (ERDF) with a goal both to expand the digital collections and to improve its services. The project is implemented by the National Library of Latvia together with its partners – the National Archives of Latvia, the National Cultural Heritage Board and the Cultural Information Systems Centre.

During the project, 3 075 000 pages of text, 117 000 maps, photographs, surveys of cultural monuments and other visual materials, 223 000 minutes of audio recordings, 245 000 minutes of video footage, 37 500 minutes of cinema footage, 70 000 museum objects, as well as a small amount of 3D- digitised cultural monuments (10 units) will supplement the holdings of the Digital Library. The project will also develop further the information systems behind the Digital Library and establish a single access point for search of digital cultural heritage materials. At the same time, the organisational model for managing the digitisation processes in Latvia will be reviewed and two competence centres will be established to coordinate all the processes related to digitisation, digital preservation and making the digital cultural content available to public.

The National Library of Latvia also develops new services for using its digital resources in research. The vast digital resources give unique opportunity for researchers both from Latvia and abroad not only to read e-books and periodicals, but also to enable computerised research and data processing within the collections of Latvia's digitalized texts. The National Library of Latvia has begun to offer individualised services for researchers in order to take into consideration the individual requirements regarding the contents, format, scope and other parameters of the information needed.

The National Library of Latvia is the national aggregator for and on a regular basis within various projects of the inject data and resources into Europeana, contributing also to the editorial content of the platform, e.g., projects "Rise of Literacy" and "Migration".

Estonia

The National Library of Estonia's digital archive DIGAR stores online publications, print files and digitized copies of publications (digar.ee). DIGAR contains books, newspapers, journals and magazines, maps, sheet music, photos and postcards. Archived publications can be searched via the e-catalogue ESTER and bibliographic databases created by the National Library of Estonia. The National Library of Estonia supplements the digital archive DIGAR pursuant to the Copyright Act. The material stored in the archive contains works whose author or copyright holder is unknown.

The National Library of Estonia and four academic libraries are engaged in digitizing their collections on a systematic basis. The National Library, Tartu University, the Estonian Literary Museum, Tallinn University of Technology and Tallinn University digitize annually on average 2.1 m pages. The libraries have agreed on quality criteria and description of digitization of printed material. There is also collaboration and service provision between the partners, based on scanner types and special requirements of the analogue material and some collaboration on digitizing other media as video, sound and photographs. There are agreements in place on long-term digitization plans as part of the national roadmap for digitization. The library consortium ELNET owns the national-level shared access portal for cultural heritage, e-varamu.ee that the National Library of Estonia is a member.

As in other Baltic States, the National Library of Estonia currently is implementing a number of projects aimed at improving the services of DIGAR and expanding its content.

Sweden

The national aggregator of digitized cultural heritage objects—Swedish Open Cultural Heritage, or SOCH—is a platform and an API service that collects all digitized cultural heritage objects in Sweden (ksamsok.se/in-english). SOCH is a service provided by the Swedish National Heritage Board under the Ministry of Culture.

Through SOCH (as the national aggregator), many cultural heritage organizations in Sweden deliver their data to Europeana. SOCH follows the same copyright rules as Europeana for the data they receive from cultural heritage institutions. Having a long history of openness in the Swedish society and public sector, the cultural heritage institutions in Sweden deliver their data as openly licensed as possible. A general thought in the cultural heritage sector in Sweden is that what one produces with the taxpayers' money belongs to all of the society and shall be open and accessible to everyone.

The government has committed the museums to digitize and make Swedish national cultural heritage as available as possible. It comes down to the European Open Data and Public Sector Information (PSI) Directive, which Sweden has implemented and follows government.se/about-the-website/psi-data.

Norway

The National Library of Norway (NLN) is a national memory bank that provides a multimedia knowledge and focuses on archiving and distribution (nb.no/search). To achieve this vision, the NLN has undertaken to become a modern digital national library – and thus acquire a new form of national library.

The new library users will be able to enjoy access to a large variety of digital content from wherever they are located and whenever they want. This means the NLN's digital collection must be available in both the National Digital Library and through other online services. The NLN collection is being digitized in accordance with the requirements laid down for long-term archiving of digital content.

The NLN is establishing the required standards for this in collaboration with a number of international organizations. The digital objects are enriched with metadata and sustainable identifiers, which will increase the opportunities for archiving, use and reuse over the next millennium. The NLN facilitates diverse and varied use of the collection's content. The content is published in an attractive format.

Digital content no longer covered by copyright will be made available to everyone in the digital library. The entire digital collection will be available for research and documentation on the NLN premises. The NLN will otherwise enter into agreements with beneficial owners regarding the right to grant online access to researchers, students and the NLN users in general.

The NLN also offers its metadata and digital content as part of other online services. This allows users to access material in their preferred environment. This is achieved by offering services that other service suppliers can easily integrate into their own services, and generally making the metadata and the digital content available to search engines and other online service providers.

Germany

Germany's national portal for the presentation of digitized objects from libraries, archives, and museums is called the "Deutsche digitale Bibliothek" (DDB) (deutsche-digitale-bibliothek.de). Its implementation started in 2007, and a Beta-Version started in 2012. The DDB is being funded by the federal government, its 16 federal states and by Germany's municipalities. The institutions that provide for the DDB are responsible for costs, care, review of the copyright and, respectively, user rights.

Because the DDB functions the same way as Europeana, national libraries, central libraries of the federal states, university libraries, larger archives, and museums are the actual pacemakers of digitization. They also help to preserve databases of digitized heritage, e.g., the University Library of Rostock is responsible for the long-term archiving of WossiDiA, the digital Wossidlo Archive (see below).

Finland

Finna.fi provides free access to material from Finnish museums, libraries, and archives. The National Library of Finland bears the main responsibility for developing and maintaining Finna, but the actual work on its development is carried out together with Finna partners. Finna was created as a part of the National Digital Library project (2008–2017) of the Ministry of Education and Culture. Finna is a collection of search services that include several sites in addition to the nationwide finna.fi site. The content included in any organization-specific site is usually limited to the material of the organization in question.

Finna is continuously evolving, and it is gradually replacing the user interfaces of all Finnish libraries, archives and museums. Now, more than 300 organizations are involved in Finna, the following of which have opened their own Finna search functions.

Specialized digital collections

Though not all cultural institutions are in a position to develop and maintain their own digital services, many do, particularly when it comes to providing extended services for a specific type of cultural resource, specific region or specific target audience. Some examples are listed below.

Lithuania

Aruodai.lt is a comprehensive digital collection of sources on Lithuanian culture (aruodai.lt). It provides means to preserve and analyse language, folklore and ethnological, archaeological, and historical data in a modern way. This compendium of sources on Lithuanian culture serves educational, creative, and other purposes important to the Lithuanian world community and helps its members maintain their national identity under conditions of globalization. The classified index contains keywords in English; therefore, the data stored in the repository are available both to Lithuanian users and to users from other countries.

Germany

The digital Wossidlo Archive (wossidia.de) can be considered the “best practice” example in Germany. It is a freely accessible digitized landscape collection on oral traditions. There one can find classical fields of folk tradition (legends, fairy tales, customs, songs, riddles, rhymes, old children’s games, ethnobotany, ethnozoology, place names, descriptions of old craft techniques, etc.). It tells of the culture and the way of life of the Mecklenburgian rural and maritime population. The Wossidlo collection documents the Mecklenburgian dialect and is the basis for the seven-volume Wossidlo/Teuchert: Mecklenburgisches Wörterbuch is one of the biggest dialect dictionaries in Germany.

WossiDiA is aimed at both professional scientists (ethnologists, dialectologists), as well as scholars from other subjects and the general public of Mecklenburg-Vorpommern. The latter is using WossiDiA for information and for building local or regional identity. Even students have started to discover WossiDiA (in Mecklenburg-Vorpommerns the mediation of the Low German Language is offered from elementary schools to some selected secondary schools).

The problem (and innovation) of WossiDiA is that it contains handwritten archival material in the original dialect (about two million scans of handwritten material). Therefore, it is not enough to publish the sources digitally—it needs to be transcribed, translated, and explained to the public and even scholars. Amateur groups help to transcribe and translate the archival material. Crowd-Sourcing projects could help to explain these documents of cultural heritage to the public, especially the younger ones.

Since 2017, WossiDiA takes part in the transatlantic project ISEBEL (Intelligent Search Engine for Belief Legends) (see isebel.eu; theomedier.nl/VilniusISEBEL.pdf). The main goal is to create an international search engine that would enable to harvest data from several folktale databases. Currently, Dutch, Danish and Low German traditional folktales are linked in cross-border research.

Sweden

A virtual tour of the Hallwyl Museum in Stockholm, Sweden (sketchfab.com/TheHallwylMuseum) that features objects in 3D format and is accompanied by the audio guide is another interesting example of how to use the digital platform for the dissemination of objects stored in a museum.

Once the home of Walther and Wilhelmina von Hallwyl, the residence was built and completed in 1898 as a winter home for the immensely rich couple. Because Wilhelmina had ties with Germany, the curators of the virtual tour made sure to include a few links to the German cultural heritage.

The tour is accessible to the general public all around the world; the curators published it on Sketchfab – a platform that can be used to publish, share, and discover 3D, VR and AR content.

Latvia

The website “The Latvian Culture Canon” (kulturaskanons.lv) created by the National Library of Latvia is a digital collection that covers various most significant Latvian cultural areas over the centuries. It is a collection of the most outstanding and significant works of art and cultural heritage. The Culture Canon includes the treasures of Latvian culture in various fields that we are proud of and which should form the basis of the cultural experience and sense of belonging to Latvia for every resident of Latvia. Covering seven spheres, the Culture Canon comprises 99 cultural treasures.

Created in 2017, the website provides broad access to information on Latvian national cultural values and includes links to diverse cultural treasures housed at various Latvian memory institutions, which constitute the cultural canon, as well as the knowledge accumulated in recent years on the values of the cultural canon within various projects and activities. The website contains links (periodicals and external resources) that allow the general public to explore and search for the information it needs, get to know different sources of information, and find out if there is a free access to information in cultural institutions, including libraries and archives. The creators want the website to serve as a door to the cultural world by explaining the importance of cultural values and inviting to look deeper into each individual value through different formats: video, photo, text, books, maps, images, etc.

The portal “Cross Border E-archive” (earchive-estlatrus.eu) offers online viewing of the 19th century documents from the archives of Estonia, Latvia and Russia. These documents pertain to the entire territory of the Republic of Estonia, city of Riga, Vidzeme and Latgale regions in the Republic of Latvia, and to the city of St. Petersburg, Pskov and Leningrad regions in the Russian Federation.

The objective of the portal “Cross Border” is to maintain the historical and cultural heritage of trans-border territory accumulated in the archives of Estonia, Latvia and Russia as well as to provide the residents of the three countries with free access to this heritage. Important information related to Estonia, Latvia and Russia was selected and new collections of digital materials were created in the course of the project. Information that is freely available to all resident groups is used in compiling the collections: therefore the digital collections in the portal will be available for the residents of the involved countries, as well as other interested parties.

The portal was created by the Culture Information Systems Centre in the period 2012 – 2014 within the Cross Border Cooperation program for Estonia, Latvia and Russia from 2007 to 2013 within the framework of European Neighbourhood and Partnership instrument in cooperation with the partners – the National Archives of Latvia, the National Archives of Estonia and St. Petersburg Information and Analytical Centre, as well as involving the associated partner – Archival Committee of St. Petersburg.

Estonia

Rode Altarpiece virtual exhibition (rode.ekm.ee) was created as a part of a large-scale project that aimed to research and conserve the altarpiece of the high altar of St. Nicholas’ Church in Tallinn with support from the EU funding, and realised by the Art Museum of Estonia. The altarpiece was completed in the workshop of the well-known Lübeck master, Herman Rode, and is one of the most impressive examples of late medieval Hanseatic art in Europe.

The results of the work have been brought together in a web-based media portal. It offers the opportunity to compare two distinguished pieces of sacral art by Herman Rode – the retable of the High Altar of Tallinn’s St. Nicholas’ Church (1478-1481) and St. Luke’s Altar retable of the Painter’s

and Glazier's Guild in Lübeck (1480's–1490's), including high resolution and infrared photographs of the painting. This excellent online presentation ensures that the results of the study are open and accessible to the general public and specialists the world over, and brings together the heritage zheritance of Estonia and Germany.

Europe

Though not created in any of the Baltic Sea States, an excellent example of bringing together cultural heritage objects from all over Europe on a single topic is the Europeana World War I collection (europeana.eu/portal/en/collections/world-war-i). Created by Europeana together with its partners through a series of collection days throughout Europe, it offers a close-up and personal glimpse on the event that reshaped all of the Europe's history. It allows exploring untold stories and official histories of World War I, blending cultural heritage collections and personal items contributed by European citizens.

Recommendations

The artefacts of cultural heritage are gradually moving into the digital space. More and more possibilities in exploring, analysing, comparing or creating new products based on them have arisen. All cultural heritage keepers must look into and properly evaluate not only the preservation of such objects, but also how to use them in an attractive way.

Considering the fact that the age of users of the digitized cultural heritage content is relatively young and that their ability to use modern technologies is high, all the proposed services related to the methods of dissemination of cultural heritage have to be modern and attractive.

Cultural heritage institutions undoubtedly ensure the completeness and reliability of the data available. It should become an essential incentive to use it. Currently, attention should be paid to the development of services attractive to consumers. The following potential needs could be distinguished in the general audience (especially the youth) consumer group when analysing digitized cultural heritage artefacts usage services.

Cognitive interest

The interest of some users is cognitive; therefore, the main attention has to be paid to the exact search and access to already curated collections. Creating collections, a close attention should be paid to the following aspects:

- The completeness of the content must be ensured;
- Content linking (geographic locations, historical place names, historical names, map display services) should be ensured;
- A special emphasis should be put on curated collections that serve as an effective tool in the process of dissemination of the digital heritage.

Educational purposes

A significant part of consumers use cultural heritage artefacts for educational purposes: students use this type of material to perform independent tasks; teachers actively use this content for educational programs.

Therefore, it is important to emphasize:

- Preparation of comprehensive metadata;
- Possibility of copying and using the content;
- Possibility of developing educational programs.

Creative industries

It is also important to acknowledge users for whom cultural heritage objects serve as creative tools for producing new services or products. In this case, a couple of possibilities should be emphasized:

- Convenient content selection tools (text, picture, sound, and video documents);
- Clear and detailed document usage-licensing policy.

Research

The use of digital material gives new opportunities not only within the humanities, but also within all disciplines, not to mention interdisciplinary ones.

Many different research questions could be addressed by use of digitized material, whether it is news press, journals or fiction/novels, or others. Questions can be related both to processes stretching over time, or related to a specific and given time in history. For example, it would be possible to study development of themes or networks of people, and their transformation over time. One could study how public discourse changes in relation to major social, political, demographical or economic transformation. Through a qualitative reading of (limited amount of) news media, such hypothesis has been studied and tested, but with the digitization of a vast amount of news media there are new opportunities to study such themes quantitatively, on a large scale. The same goes with other source material.

Interesting is the combination of quantitative and qualitative methods to study large volumes of text material. The quantitative approach gives one-entry points to qualitative reading and interpretation, and vice versa.

Some more specific examples of topics, where the use of digital material has and will be useful, may also be the following:

- Cultural myths and stereotypes across times and cultures;
- Social roles and attitudes towards genders;
- Attitudes towards neighbouring countries and ethnic minorities;
- Anthropology of food;
- History of place-names;
- Family names across cultures;
- Attitudes towards animals and nature in general;
- Folk beliefs about health and traditional medicine (both in history and now);
- Places in literature (how the space is perceived, how large the world for some culture is in any given time in history);
- Research of particular authors, analysis of their style, comparative studies of authors;
- Cultural and social history in 18th – 19th century manuscripts (such as Herrnhuter manuscripts)

All these topics can be explored in various sources – news sources, scientific discourse, cookbooks, statute books, literary fiction, photography, and others. In the context of digital approaches, most topics benefit from the keyword search – the simple possibility to look for concepts in digital libraries. In cases where places and names are being explored, researchers benefit from the text where named entities are marked (annotated corpora). In several cases, georeferencing (applying of GIS) can be used (place names, family names, places in literature). Analysis of style in discourse requires further text mining approaches – analysis of word frequencies, topic modelling, and other.

Research of manuscripts and other archival materials hugely benefits from digitization combined with crowdsourcing initiatives that allow transcribing them and making them machine-readable as a result.

Creating community-based content

Another way to attract the general audience is to invite it to contribute to the collection or exhibition. In such case, clearly identified administrative rules for content selection and presentation are important. Both content providers and portal editors have to adhere to clear rules on how to collaborate and create new content.

An invitation to collect heritage collections through the user-friendly artefacts is a good way to attract the general audience.

To summarize the recommendations for using the digitised cultural materials for strengthening the sense of regional identity it is important to highlight the following:

- Development of international and interdisciplinary cooperation among cultural heritage institutions and the importance of a continuous dialogue in implementing the policy of deepening the concept of regional identity;
- Ensuring the consistency and the sustainability of the activities in this area;
- Providing comprehensive information on neighbouring countries' practices in the field;
- Developing the already existing and emerging cooperation networks (i.e., Bibliotheca Baltica);
- Implementing research-based digital cultural heritage content projects and cooperation with academic-research institutions on national and regional level.

To conclude, online exposure of cultural heritage materials can offer a lot for exploring regional commonalities across the Baltic Sea Region and building helpful narratives for developing a shared regional identity. In an increasingly fragmented information space, it is vitally important to build cultural bridges across neighbouring countries sharing common heritage and values to increase resilience of societies. So far, cultural heritage institutions have mostly focused on revealing their collections online, both for general and specialist audiences; national digital library initiatives have made big efforts to create a critical mass of digitised cultural materials and make them easily accessible through single-entry access points allowing users to explore the treasure troves of national cultural heritage. Now it is the time to take the next steps in making the digitised heritage available to public in a more meaningful way, both by creating specific services for narrow target audiences and developing useful narratives for strengthening of regional identity.



Use of cultural heritage materials in research across borders

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Use of cultural heritage materials in research across borders

This chapter of the report is devoted to the options to increase the use of cultural heritage materials in research across borders, identifying both obstacles currently restricting the use of cultural heritage materials in research across borders and possible solutions for overcoming these obstacles.

Challenges for using cultural heritage materials in research

Libraries and other cultural heritage institutions have traditionally been part of both cultural, educational and research ecosystems, providing a strong foundational infrastructure for researchers. However, in recent decades the role of cultural institutions in research ecosystem has noticeably shifted as the nature of research has changed considerably. Research practices are becoming increasingly international and collaborative in their nature, information sources for researchers have moved mostly to digital environment, thus the collections of cultural heritage institutions have gradually lost their competitiveness. While cultural heritage institutions have invested a lot of effort to make their collections more appealing and easy to use for researchers, many challenges persist.

Discovering relevant collections

It is often difficult to locate relevant material and to communicate with cultural heritage institutions, as many institutions do not provide comprehensive information on existing sources as well as on digital collections and services online. In many cases, information is provided only in the national language(s) and thus not easily accessible for most international researchers.

Access to digital collections

Digital access to collections is often restricted by many institutions' limited capability to process international digitization request, to digitize source material on demand quickly and cost effectively and by policies that prevent the provision of rights-free material for publication and reuse. Further obstacles exist for rights-protected materials.

Provision of digital research services

Over the past decades, libraries have accumulated large collections of digital resources. Their potential for research and education, however, is not fully deployed. Libraries lack the necessary infrastructures, skills, and knowledge that would enable them to provide digital research services while researchers do not have access to library collections to use their digital tools for metadata mining, text analysis, application of GIS, and data visualization.

Dispersion of materials and collections across borders

Over the centuries, the countries of the Baltic Sea Region have been closely linked by cultural, academic, economic and demographic links. As a result, collections have been dislocated or dispersed on many occasions, for a variety of reasons – including shifting patterns of economic and cultural exchange, territorial reorganization, dynastic developments, as well as wars, revolutions, political repression and forced migration. During the 20th century, in particular, vast amounts of cultural heritage materials were lost and dispersed during and after the two World Wars.

Best practice

Despite the abovementioned challenges in providing fit-for-purpose services for researchers, there are also many best practice examples that shine a light upon prospects to increase collaboration between cultural heritage and research sectors.

Facilitating the discovery of source material for cross-border research

The main challenge for many researchers in the Baltic Sea Region is the discovery of relevant source material across borders. In many cases, not enough information is accessible online. Frequently, there are language barriers, as access to material is only through the national language or national languages. Even where substantial catalogues or databases of holdings are online, it can be difficult to identify relevant corpora or collections of materials, as most databases – at least in libraries and museums – are organized according to item-level descriptions.

A good example of an institution that provides collection-level descriptions is the Herder Institute for Research on East Central Europe, based in Marburg, Hesse, Germany. Its Central Description of the Collections (CDC) (herder-institut.de/holdings/?lang=en) provides a bilingual German/English overview of the analogue and digital collections available at the Herder Institute – including both books as well as special materials such as newspapers, press clippings, printed music, pictures, maps, archival documents, research data, etc.

Its main aim and function is to provide a common access point to the diverse holdings of the institute's rare or even unique holdings, thus overcoming the classical distinction between library, archive, image and other holdings. Wherever possible, the CDC is linked to the materials/sources themselves and/or their verifications in the catalogues and collection databases of the various service areas of the Herder institute. This is particularly important when holdings (e.g., the library holdings) are catalogued in union or other meta-databases (the Hessian Library Information System HeBIS).

The CDC database, which was launched in March 2019, is still a prototype under construction. Its main features, however, have already been successfully implemented. The data model of the Central Description of Collections is based on LIDO and the definition of holdings follows the category E78 Curated Holding of CIDOC-CRM. It is also important to stress that the CDC's entries generally use authority record IDs. This is made possible through the high editorial status of the Herder Institute's Library within the German Joint Authority File ("Gemeinsame Normdatei GND") which makes it possible to create new authority records within a very short period. The CDC user interface is available in German and English.

Application of FAIR principles enables free use of materials for research

An important obstacle for researchers in the Baltic Sea Region is that not all copyright free digital material is available in a way that permits free reuse for research. This is because in many countries, large digitization initiatives were organized by or in collaboration with private companies, and many research institutions cannot finance the for-profit licensing costs for such databases.

The "FAIR Guiding Principles for scientific data management and stewardship" (go-fair.org/fair-principles) are envisaged to improve the reusability of scholarly data in research with a special emphasis on machine-actionability. The FAIR principles recommend that research data shall be findable, accessible, interoperable, and reusable.

The ongoing initiative “Cultural Heritage Data Reuse Charter” (datacharter.hypotheses.org/77) is working on the implementation of the FAIR-principles in the arts and humanities domain. It aims to improve the use and re-use of cultural heritage data issued by cultural heritage institutions, studied, and enriched by researchers. Therefore, six basic principles have been set up that researchers and cultural heritage institutions should commit to: Reciprocity, Interoperability, Citability, Openness, Stewardship, and Trustworthiness.

Openness of cultural heritage institutions to support research-driven initiatives

DIAMM, the Digital Image Archive of Medieval Music (Digital Image Archive of Medieval Musik: diamm.ac.uk), is a leading resource for the study of medieval manuscripts based at the Faculty of Music of Oxford University, England, UK. It presents more than 60 000 images (pages) and scholarly metadata for almost 4 000 manuscripts drawn from collections in more than 40 countries across Europe and the world.

The specialist resource has built the corpus drawn from individual sources and manuscripts. Setting out as a digital image collection, it now also provides a home for scholarly resources and editions, undertakes the digital restoration of damaged manuscripts and documents, publishes high-quality facsimiles. Crucial to its success is the willingness of cultural heritage institutions across the world to provide digital copies of their material for inclusion in this open access academic resource.

Special information services for researchers across borders

Accessing digital and analogue materials across borders is a challenge for many researchers, especially if the material is rights-protected.

One innovative project that supports researchers in this field is the German Specialist Information Service Northern Europe (“Fachinformationsdienst Nordeuropa”, short FID) (vifanord.de), based at Kiel University Library in Schleswig-Holstein, Germany. It acts as an information broker for German researchers on Northern Europe.

The FID is part of a system of Specialist Information Services (FIDs) on different subjects and geographic areas funded by the German Research Foundation. The FIDs main task is to enable German researchers to access all materials they need respective to their subjects, regardless of their home university.

One of the FIDs central services is cross-border acquisition of scientific literature from and about the Northern European countries independent of its form of publication. The FID Northern Europe is very innovative in this field and provides a variety of “cross-border services” that permit researchers to access materials. The research portal vifanord (Virtual Research Library Northern Europe) contains the data derived from the Northern European National Library databases and is developed in cooperation with them.

In addition to national and international interlibrary-loan systems, a cross-border digitization on demand service was established in cooperation with two Swedish partners, *Litteraturbanken* and Gothenburg University Library. Through this cooperation, the FID provides digital copies of copyright-free materials from all Swedish libraries. Digitization itself is done in Gothenburg and the relevant metadata are created in Kiel. It is envisaged that this system should be extended to other Northern European countries as well as other institutions such as archives and museums.

In order to observe DFGs rules, all services address exclusively researchers. Given this background, the FID has created and administers a trusted list of German researchers with the focus on Northern

Europe who are allowed to use the service. The list is worked out and is continuously updated in cooperation with the FIDs advisory board and related professional associations. By that, the FID is enabled to offer researchers the access to northern European online resources such as e-journals, full-text databases and, of course, Digitization on Demand.

Research-friendly licensing agreements permitting cross-border access

Currently, research communities abroad can only access copyrighted legal deposit materials on-site due to practice, technology and licensing issues. This is a major obstacle to international research in born-digital and audio-visual materials, especially for research into materials in languages other than English that are less well represented in global media services.

The National Library of Sweden in cooperation with the Åbo Academy (Swedish-medium University in Turku/Åbo, Finland) and the collective management organisations of both countries – Copyswede (Sweden) and Kopiosto (Finland), launched a pilot project in 2016 that aims to overcome these obstacles. It aims to provide cross-border remote access to the collection of audiovisual materials of the National Library of Sweden for researchers.

The cross-border effect was achieved through national licensing in Finland and Sweden respectively. A prerequisite was that both countries had similar ECL provisions for education and research. By way of the pilot study, 40 researchers at Åbo Academy had remote access to the National Library of Sweden's entire collection of television programmes produced by Swedish Television (SVT) between the years 1960–1969.

Re-connecting dispersed collections through joint cataloguing and digitisation initiatives

Over the past three decades, libraries have begun to work together to reconstruct dispersed collections and make them accessible for research.

One important project of relevance for the Baltic Sea Region is the portal *Hofmusik in Dresden – Dresden Court Music* based at the Saxon State and University Library in Dresden, Saxony, Germany (hofmusik.slub-dresden.de/en). The project has successfully documented the musical scores of the Dresden Court Church and the Royal Private Music Collection from the period of the Union of Saxony and Poland (1697-1763). The musical sources were catalogued in the international musical source reference database RISM (opac.rism.info). In addition to the sources preserved in situ in Dresden, the project also includes sources made available by libraries in Berlin, Brussels, Halle, Hamburg and Leipzig, as well as 150 manuscripts that were taken to the Soviet Union as war trophies after the end of the Second World War. These materials are now in the Russian State Library in Moscow and were catalogued and digitised as part of the project initiated by the German-Russian Library Dialogue (preussischer-kulturbesitz.de/priorities/cooperation/deutsch-russischer-bibliotheksdialog/?L=1).

Another example of a portal successfully reconnecting dispersed collections is the portal *Hereditas Baltica (HerBalt)* (leibniz-transfer.de/einrichtungen/geisteswissenschaften-und-bildungsforschung/herder-institut/hereditasbaltica-herbalt), a cooperation project of archives in the Baltic States and Germany to create a digital reading room for dispersed archival collections.

HerBalt forms a bridge between the Baltic Germans, who were resettled in Germany during the Second World War, as well as their written heritage on the one hand and the archival institutions in the Baltic States on the other. The aim of the project is the digitization and provision through the Internet of Baltic archival materials stored in the major archives of Estonia, Latvia and Lithuania, as well as in Germany and other countries (e.g., Denmark, Sweden, Finland, Russia, and Poland).

The virtual pooling of holdings separated due to their war and post-war destinies makes it possible to gain easy and quick access to this cultural heritage, irrespective of its place of storage and its state of preservation, as well as the preservation and maintenance of the cultural heritage by preserving the originals. The major motivation behind this project, which received external funding from 2010 until 2016, was to underline the fact that in the digital age dispersed collections (and also collections which contain original and microfilmed materials like the collection of microfilms of the Tallinn City Archives which was created in 1940 against the backdrop of the resettlement of the Baltic Germans) can be virtually united without changing the place of their physical storage.

This is particularly important because some of the originals were lost in the following decades and thus the microfilms became the only existing copies. It is also worthwhile stressing that the results of the project are still fully available after the end of the external funding thanks to careful planning for the time after the initial project.

Building digital research services

In future, digital research services should be considered core services of cultural heritage institutions, providing both high-quality source data as well as tools to analyse and edit this source material.

Several prominent cultural heritage institutions across the world have installed digital research labs or centres for digital research and innovation; they have developed specific services and/or have collaborated with other institutions to develop platforms that enable in-depth analysis of digitised collections.

As it is hardly possible to establish cutting-edge digital laboratories in all institutions in the short to medium term, a set of comparatively simple and useful standard practices should be introduced in all institutions that host digital collections. These practices should be considered as core services. They include data level access to databases and digital collections that provide customers with access to raw data, or development of API that enables customers to access digital objects and perform operations of digital analysis and visualisation.

Ideally, the national institutions in every country should develop digital labs and function as competence centres; smaller institutions would introduce well-tried solutions. Not all countries are currently on the same level, hence it is important to share experience and knowledge between the countries and, subsequently, between institutions of a particular country.

Several international organisations host special interest groups with the aim of advancing digital services and digital competencies in cultural heritage institutions, such as the Digital Humanities & Digital Cultural Heritage Working Group in LIBER (libereurope.eu/strategy/digital-skills-services/digitalhumanities).

Another (currently informal) network that seeks to bring together all digital humanities laboratories, including library, archive, museum, gallery, and university laboratories, is the "Building Library Labs" initiative that has been established in September 2018 by the British Library Labs (glamlabs.io). It operates as a network that organises regular meetings, employs mailing lists, wikis, and other means of communication to share information relevant to the labs. To reach audiences that are not active members of the core group of this initiative, the British Library Labs aims to produce publications and to highlight successful projects.

Recommendations

Based on the analysis of a number of best practice examples we have developed a set of recommendations for different stakeholders, including policy makers on both national and regional levels, as well as research communities, funding agencies with a national and international remit and national and regional institutions and individual cultural heritage institutions.

The aim of the recommendations is to facilitate the achievement of the following goals:

- To make collections more visible for international researchers on the web;
- To permit international researchers to access and use the collections effectively – both in the original and the digital form;
- To promote the development of collaborative digital research services in cultural heritage institutions;
- To expand and enhance staff's skills, especially in the fields of digital research services and the creation of standardized machine-readable metadata;
- To support the cohesion between larger and smaller institutions and collections with the help of competence centres on national and, in some cases, regional level.

General recommendations

All stakeholders should work together:

- to promote the adoption and implementation of common technological and metadata standards;
- to make existing digital resources more interoperable;
- to expand projects for full-text generation;
- to strengthen the links between research communities and cultural heritage institutions;
- to establish and connect national infrastructures.

Institutional level recommendations

More needs to be done to make cultural heritage materials accessible for international research and to overcome obstacles that currently restrict or prevent effective access to data. To achieve this goal, cultural heritage institutions should implement the following recommendations:

- Every cultural heritage institution should have a designated research liaison officer and a designated access point for researchers easily identifiable on the institution's webpage. This access point should be efficient to handle requests in as many relevant international languages as possible, including English.

The research access point should be able to handle questions concerning the access and use of materials, including digital and physical reproductions for research and publication, as well as being able to facilitate the communication with relevant specialized staff in the institution.

Major cultural heritage institutions should also have designated staff to handle research queries in Digital Humanities.

- Cultural Heritage Institutions should have research-friendly digitization policies aimed at providing researchers with digital copies of cultural heritage materials within an acceptable time and cost frame. They should avoid public-private partnerships that create new rights restrictions on the dissemination of cultural heritage materials.

Institutions should implement an efficient workflow for research-driven digitization on demand or cooperate with other institutions to provide such services.

- The discovery tools aimed at researchers (including online catalogues, websites and finding aids) should be freely accessible. As far as possible, they should be tailored to the needs of the relevant research communities and should ensure multilingual access in all relevant languages including English.

In order to facilitate international access to materials, institutions should contribute their metadata to relevant international or national databases.

Machine-readable information in standardized formats should be available for all digital resources and as many analogue materials as possible. The metadata should implement relevant authority files, preferably internationally interoperable authority files that are published as linked open data.

In addition to item-level descriptions – and especially in cases where larger collections are not documented by item-level metadata in electronic form – the publication of collection level descriptions are recommended, preferably implementing internationally interoperable authority files.

- Cultural heritage institutions should work together to improve access to dispersed collections and materials, ideally, by developing and providing joint digital access.

Recommendations for national and regional institutions

All countries of the Baltic Sea Region have diverse networks of cultural heritage institutions – libraries, archives, museums, research institutions – that are collectively responsible for collecting, preserving and providing access to a wide range of materials.

The organisation of the cultural heritage sector, however, varies considerably between the individual countries, reflecting different constitutional and legal arrangements as well cultural traditions and separate organisational traditions within the different branches of the cultural heritage sector. However, in all countries there are national institutions with a mandate to organize and support collaborative efforts within their institutional remit.

In a number of countries, notably the Federal Republic of Germany and the Russian Federation, in addition to institutions with a national or federal remit, there are regional institutions with a similar mandate for all or some of states or regions. In most countries, there are also autonomous regions and ethnic, religious, cultural or linguistic communities that maintain their own cultural heritage institutions.

In many cases, these institutions already have a mandate to coordinate digitization activities in their field or to provide services to smaller institutions with their remit. It is recommended that these activities should also include measures to provide better cross-border research access to collections and both digital and analogue materials.

In addition to the recommendations for individual cultural heritage institutions, national and regional institutions should implement the following recommendations:

- The research access points should be equipped to handle research questions concerning the access and the use of materials to assist researchers in identifying and connecting with other relevant collections and institutions. They should support or maintain a network of research liaison officials and Digital Humanities contacts in their field.

- National or regional institutions should be mandated and funded to create a system of digital competence centres with the aim of supporting smaller institutions that cannot provide a full set of services on their own.
- In order to facilitate international access to materials, national institutions should endeavour to build interoperable national union databases or discovery portals, especially in the field of special collections, and promote international access by participating in international databases or portals.
In order to promote and facilitate research-driven digitization activities, national and regional institutions should work together to develop an international system for inter-institutional digitization on demand.
- National and regional institutions should work together with other institutions across the Baltic Sea Region to facilitate the cross-border inclusion of digital materials from other countries and institutions in national digital collections. This involves developing exchange mechanisms for metadata, digital images and derived digital data.
- National and regional institutions should support research communities in other countries that require access to their material and should work together with and support the development of research infrastructures such as the *Fachinformationsdienste (FID)* in Germany or the *Collections d'excellence (CollEx)* in France. This includes providing cross-border access to rights-protected research data through trusted registries or authentication systems for international researchers.
- National institutions should collaborate to develop and implement a standard set of core services for digital research based on common principles.

Recommendations for policy makers and funding agencies

- Policy makers throughout the Baltic Sea Region should work together to create a legal framework within the European and national copyright systems that permits both on-site and off-site access for research into copyrighted legal deposit material held by national and regional libraries in born-digital and digitized form including provisions enabling cross-border access by researchers.
- Policy makers and funding agencies should:
 - provide national and collaborative international funding mechanisms to permit the digitization of relevant source material held in other countries, and
 - should fund pilot projects to provide cross-border access involving collective agreements with copyright management organizations
- Policy makers and funding agencies should ensure that all results of all publicly funded digitization activities are provided according to the FAIR principles¹

1 go-fair.org/fair-principles

IV

Cross-border accessibility of cultural heritage in digital environment

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Cross-border accessibility of cultural heritage in digital environment

This chapter deals with opportunities to enable a wider cross-border accessibility of copyright protected cultural heritage materials. No cross-border access equals silos – i.e. source material is confined to one country and cannot be accessed by all potentially interested parties. As progress in this area is vital for society to fully enjoy the benefits of digitisation across borders for all kinds of uses, this expert group explored the most efficient ways to address these issues, including extended collective licensing deals, use of the tools provided by the orphan works legislation and use of separate cross-border licensing deals.

Principal challenges from a copyright perspective

If a cultural heritage institution wants to digitise its collection and make it publicly available over the Internet it must clear the rights of any copyright-protected works. Clearing one work at a time is not only impractical, it is impossible. Hence, when an institution wants to digitise large quantities of material and make it publicly available on the Internet, it needs a collective licence. Historically, licences have only covered works of rightholders represented by the collective rights management organisations, which have precluded works authored by rights holders who do not belong to such organisations, as well as orphan works.

In this context, it is important to go back several years to look at a major dispute in the United States between *Google* on the one hand, and publishers and authors on the other. *Google* had commenced comprehensive digitisation of books at the US universities without the approval of the rights holders. The (US) Authors Guild and the Association of American Publishers sued *Google* for damages, but the parties ultimately drafted a proposed settlement with inspiration from an unexpected source – Scandinavia.

The problem facing the parties was that it was not possible to identify all rights holders and obtain their approval for the digitisation and public availability. In Scandinavia, however, that problem was solved 60 years ago by introducing collective licences with an extended effect – the so-called extended collective licences (ECLs). The model of ECLs appealed to *Google*, which, together with the Authors Guild and the Association of American Publishers, presented a proposal for settlement. However, the judge rejected that proposal; one reason for the rejection was that it was contingent upon amendment of the US Copyright Act.

Around the same time, a discussion began in the European Union regarding the problem of orphan works, which ultimately resulted in the Directive 2012/28/EU of the European Parliament and of the Council of 25 October 2012 on certain permitted uses of orphan works (the Orphan Works Directive). However, this piece of legislation failed to resolve the core issue of mass digitisation of cultural heritage objects – inability to effectively clear rights, orphan or otherwise, in conjunction with mass use.

At the same time the European Commission initiated a dialogue between the libraries and the rights holders to discuss how books and research journals, which were no longer available in commerce, could be digitised and made available to the public. The dialogue led to a Memorandum of Understanding, which was signed in Brussels on 20 September 2011.¹ One of the basic principles defined by the Memorandum is that libraries have to negotiate an ECL or ECL like licence, underpinned by legislation to provide the extended effect of the licence, if they desire to make available digitized out-of-commerce materials. The Memorandum did not lead to a significant

uptake of this principle, however, it helped to soften the views of policy makers towards ECL, and now the principles of the Memorandum and ECL have been codified in the Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC (The DSM Directive).

There was, however, a significant difference between the Orphan Works Directive and The Memorandum of Understanding. The Orphan Works directive implies that any orphan work that is recognised as such should have its status recognized within confines of all the European Union Member States, ensuring a cross-border accessibility within the EU. The extended effect of the ECL, on the other hand, is usually confined to the territory of the country in which the ECL legislation is enacted. The MoU on out-of-commerce books and learned journals did not provide solution to the challenge of ECL and territoriality.

On 14 September 2016 the European Commission proposed for a Directive of the European Parliament and the Council on copyright in the Digital Single Market COM/2016/0593 final – 2016/0280 (COD). In Articles 7-8, it proposed an ECL based out-of-commerce solution with true cross-border effect. The same year, the National Library of Sweden entered into an ECL pilot based on joint licensing with two CMOs, *Copyswede* (Sweden) and *Kopisto* (Finland), to give access to television broadcasts in the collection of the NLS at Åbo Akademi in Finland.

These two avenues, i.e. joint licensing by CMO's in two or more countries providing an ECL, on the one hand, and true cross-border effect of the adopted DSM Directive Article 8-11, on the other, may be available for cultural heritage institutions which desire to make available their collections across the border. In addition to these two options, there is an additional solution, which is described below (Finland – Finnish National Gallery – Virtual National Gallery).

Additional legal aspects – digital cultural heritage and data protection

Apart from copyright and licencing issues, there is a considerable risk that another piece of legislation – that on personal data protection – will potentially hamper the application of digital technologies for cross-border use of digital heritage materials.

Pursuant to data protection law, processing of personal data must always be lawful, meaning that a data controller meets its legal obligations regarding the processing of personal data. In the context of the European Union, this means, for example, that the data processing adheres to the conditions set forth in the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation), in the following referred to as "GDPR"), especially the articles setting forth the legal grounds for processing, as well as Articles 7 and 8 of the Charter of Fundamental Rights of the European Union and Article 8 of the European Convention of Human Rights.¹ The data processing must also comply with all of the other general principles of the data protection law.

A central goal of the GDPR is to promote a stronger and more coherent data protection framework at the EU level. Intended as a wide-ranging and far-sighted reform to strengthen and harmonize data protection in the digital age, the regulation updates most of the existing rules and introduces new ones. To some extent, the GDPR may be supplemented by national legislation.

¹ Data Protection Directive, Article 7; European Union, Charter of Fundamental Rights of the European Union, 26 October 2012, 2012/C 326/02 (the "EU Charter"), Articles 7 and 8; Council of Europe, European Convention for the Protection of Human Rights and Fundamental Freedoms, as amended by Protocols Nos. 11 and 14, 4 November 1950, ETS 5 (the "ECHR"), Article 8.

At the very outset of the regulation, the GDPR states that “technology has transformed both the economy and social life, and should further facilitate the free flow of personal data within the Union and the transfer to third countries and international organisations...”² At the same time, however, in Article 45 the GDPR sets forth the so-called “adequacy” requirement. This rule requires that Member States may only transfer personal data to a third country (i.e. a non-European Union Member State) where the third country ensures an “adequate” level of protection.³ The GDPR explains that the adequacy of the level of protection afforded by a third country shall be assessed in the light of such things as “the rule of law”, “respect for human rights and fundamental freedoms” as well as “relevant legislation, both general and sectoral.”⁴ The objective of the adequacy requirement is to prevent that the high level of data protection that is provided for within the EU from being undermined when data flows extend beyond the European Union’s territorial borders.

Data protection is no doubt a global issue. Research is conducted internationally and depends on the global network. Hence, the potential of future research is very much dependent on to which extent data can be derived from research and cultural heritage institutions and be utilized in the Digital Single Market and even more so on a global level.

Best practice

Finland – Finnish National Gallery – Virtual National Gallery

An Agreement – which may be considered a landmark case – was concluded on September 30, 2014 between the Ministry of Education and Culture of Finland, *Kuvasto* (visual artists’ copyright management organization), *Kopiosto* (an umbrella copyright management organization, representing photographers), and the Finnish National Gallery.

The objective of the Agreement is the creation of a Virtual National Gallery, accessible worldwide, covering all works of Finnish visual artists and photographers contained in the collections of the National Gallery. In this virtual gallery, works are freely accessible to the public in the open information networks, such as the Internet. Within the scope of the Agreement there are approximately 1 000 visual artists or their heirs, and 11 000 works.

The Agreement is based on the provisions on the ECL in the Copyright Act of Finland, and it thus is applied to authors who are not represented by the CMO. The non-represented authors and photographers have a right to prohibit the use of their works under the Agreement. The Parties of the Agreement have received no prohibitions during the first years of application.

The scope of the Agreement extends to all works of Finnish visual artists and photographers contained in the collections of the National Gallery, which are still protected by copyright. The agreed term covers the rights until the end of the term of protection. The National Gallery acquires the right for photographs specifically made for the Virtual Gallery.

The National Gallery receives through the Agreement the right to make the works available to the public over the Internet, and to make the necessary reproductions of the works. The National Gallery admits the public access to the web pages without payment of a fee. The Gallery may not transfer further any rights under the Agreement.

2 GDPR, Recital 6

3 GDPR, Article 45

4 GDPR, Article 45(2)(a)

The Parties have observed in the Agreement that private users frequently use reproductions on their own web pages of works found in the web pages of the National Gallery. The National Gallery has assumed the obligation to encourage the users to indicate on the Internet the name of the author, as well as the source of the works (e.g., "from the collections of the National Gallery").

The State (Ministry of Education and Culture) paid for the rights / licence a considerable lump-sum remuneration that covers all works within the scope of the Agreement, for the remaining term of copyright protection of all the works. The National Gallery pays a lump sum for the new works yearly added to the collection. *Kuvasto* sees to that the remunerations are distributed to authors and photographers entitled to remuneration. *Kuvasto* applies equal treatment in the distribution of remuneration to all rightholders.

A similar Agreement arrangement is being developed for the rest of the museums of visual art in Finland. Museums that are members of the Finnish Museums Association may join this contractual arrangement. For the moment, 22 museums are parties to the Agreement, and eventually 68 museums are eligible to join it. The rate of digitalization of works in Finnish museums today is 70 per cent.

The Bookshelf service

The Bookshelf service is a free service that gives users digital access to books published in Norway until and including the year 2000. The service is provided by the National Library of Norway, and is based on an extended collective licensing agreement with the Norwegian rightholder organization *Kopinor*.⁵ As of today there are 250 000 titles made available on the National Library of Norway's website for users with Norwegian IP addresses. The Regulation on cross-border portability of online content services in the internal market will enable users to join and access *the Bookshelf* service, for example, if they are temporarily staying in another EEA country in connection with a business trip or holiday.⁶ The service includes a wide range of works and not only literary works. For example, in several books there are musical works in the form of notes in songbooks, as well as illustrations and photographs. Furthermore, sound recording, film, etc. fall outside.⁷

The Bookshelf service was first launched in 2009, and was considered a pilot project based on previous experiences with the so-called *High North Project* in 2007. The *High North Project* consisted of the collaboration between the National Library of Norway and Norwegian rightholders on digital access to literary works on the Internet. In addition to the wish to explore the opportunities offered by digitalization and the Internet in relation to dissemination of knowledge, the purpose of the project was to provide real experience with the use of digitized literary works on the Internet. Approximately 1400 literary works were made available in full text on the Internet. Of these, 395 books and 248 journals were cleared of rights. In relation to rights clearance, one had to clear the use with individual rights holders to obtain consent to their work being published. Works by authors who were not represented by the rights holder organization fell outside of the High North Project.

The results of the High North Project provided the basis for a desire to discuss a continuation in an expanded form, and the first *Bookshelf* pilot agreement was signed in 2009 and covered approximately 50 000 books from the 1690s, 1790s, 1890s and 1990s. A new, permanent agreement in 2012 included books published up to and including the year 2000. In 2018, journals were also included through an additional agreement.

5 Kopinor is Norwegian collective management organization, representing authors and publishers in a total of 22 rights-holder organizations.

6 Regulation (EU) 2017/1128 of the European Parliament and of the Council of 14 June 2017 on cross-border portability of online content services in the internal market.

7 kopinor.no/articles/bookshelf-contract

The Bookshelf service aimed at making available works by a very large number of rightholders, both for literary and other works represented in the relevant books. The experiences from the *High North Project* showed that digital dissemination of works on the internet led to increased use of the works, and it was important to ensure that the rightholders received a satisfactory remuneration for the expanded accessibility. At the time, The National Library of Norway had legal grounds to digitize all works in its collections for preservation purposes, and to make the digitized material available via terminals in its own premises, cf. the Regulations to the Copyright Act § 1-3, third paragraph. However, to be able to make the works accessible on the Internet via the user's own computer, permission from the rightholders had to be obtained. Due to the large volume of works, individual right clearance was in practice impossible.

In addition to the challenges related to individual rights clearance of copyright protected works, another question was how to clear the rights of works from unknown authors, i.e. works whose rights holder cannot be identified or located (orphan works). At the time, work was being done at a European level to create common standards for which surveys must be done before a work can be classified as orphan or out of commerce, and developing common clearance mechanisms. However, the work in Europe had not resulted in any final legislation, and it was not until 2012 that the European Parliament adopted the Orphan Works Directive. Nevertheless, it could be questioned whether the Orphan Works Directive would have provided any sufficient solutions to the rights clearance challenges in relation to the content covered by *the Bookshelf* project.

The solution for the National Library of Norway in relation to the above mentioned problems was to enter into an extended collective licensing agreement with *Kopinor*, which made it possible for the National Library of Norway to make content available on the Internet from both members of *Kopinor* and rightholders not represented by *Kopinor*, irrespective of whether the author was known or if the work was on sale. Due to the fact that the effect of Norwegian statutory provisions on collective licensing agreements is limited to Norwegian territory, *the Bookshelf* material could only be made available via the National Library of Norway's webpages for users with Norwegian IP addresses.

ECL remote access pilot projects in Sweden

Because no concrete steps were taken under *Licences for Europe* – a stakeholder dialogue convened by the European Commission in 2012 to enable cross-border access to audio-visual works – in 2013 the National Library of Sweden initiated a study on applying ECL to enable mass usage of library collections on national and cross-border level.

In September 2015, the National Library of Sweden entered into a memorandum of understanding and regarding the principles, which would form the basis for an extended collective licence (ECL) agreement with the collective management organisations *Copyswede* (Sweden) and *Kopiosto* (Finland), in order to make cross-border remote access possible.

The National Library of Sweden commenced a national pilot program to enable remote access to audio-visual works during 2015. The national pilot program was expanded in September 2015 through cooperation with Åbo Akademi in Finland – with the aim of providing researchers and educators with digital access to the National Library's audio-visual materials and, ultimately, also to its printed materials. This cooperation was unique because the access was envisaged to occur across borders via remote access and would be based on extended collective licensing agreements. The MoU between the National Library of Sweden and *Copyswede* and *Kopiosto* was followed by an ECL agreement in the fall of 2016 (see below).

Pilot Contract for cross-border making available of certain audio-visual content on demand

In the fall of 2016 the National Library of Sweden entered a pilot agreement with the collective management organisations *Copyswede* and *Kopiosto* on behalf of themselves and on behalf of the rights belonging to their member organizations and co-operation partners.

One of the National Library of Sweden's ancillaries is the *Svensk Media Databas/Swedish Media Database (SMDB)*, a partly digitized database, consisting of audio-visual and audio media delivered to the National Library of Sweden by virtue of the decree. SMDB is available to researchers at the National Library of Sweden's premises, but access to the content can also be given through interlibrary loan. Here, interlibrary loan means a remote ordering in SMDBs search service resulting in the National Library of Sweden's staff copying the requested content to CD/DVD that is sent to the requesting researcher via traditional postal mail and that the researcher is obliged to handle in a certain way.

The National Library of Sweden's ambition was to replace the described interlibrary loan system. The intention was to create a system of making materials available over the Internet with a streaming method, which requires copyright permission. With the aim to create convenient conditions, the selected archives and libraries to be able to obtain such permission, the Finnish and Swedish Copyright Acts have respectively been amended with special provisions for ECL regarding making available the material in the collection of the archive/library.

The agreement covers the re-use of copyright protected contributions to audio-visual works included in Sveriges Radio AB's (presently Sveriges Television AB's and henceforth SVT's) in-house productions that have been broadcast for the first time in the 1960s.

The agreement covers the rights of authors, performers and producers, who represent *Copyswede*'s member organizations respectively and, by International Federation of the Phonographic Industry (IFPI) and the Film Producers Rights Association (FRF) as well as the SVT. The agreement covers the rights of authors and performers, who represent *Kopiosto*'s member organizations. Through commission, the rights of these member organizations have been assigned to *Copyswede* and *Kopiosto* respectively. The latter ones have an agreement of mutual representation regarding inter alia the making of audio-visual works available to the public for scientific research, which is the form of use that *Kopiosto* licenses with this agreement. In addition, SVT, FRF and IFPI have assigned their rights to *Copyswede*.

In accordance with Section 26 of the Copyright Act, the Ministry of Education and Culture approved *Kopiosto* on 20 December 2012 to act as an ECL organisation in this area on behalf of the rights holders of audio-visual works, with the exception of the producers' special right (section 46 a) and the broadcasting company's right to television broadcasts (section 48).

For the period of the pilot agreement, *Copyswede* and *Kopiosto* grant the National Library of Sweden the right to make available audio-visual works at the request of 40 researchers at Åbo Akademi (the recipient), through a special access service linked to the National Library of Sweden Internet domain (the remote access service).

The parties agreed that the agreement, in respect of the use of part thereof that occurs on their territory respectively, should be endowed with extended collective licensing effect to the widest possible extent in respect of works or other contributions of the kind which are granted by the agreement. Notwithstanding this, the rightholder has, in accordance with the legislation and / or the agreement, a right to opt-out from the application of the agreement.

Pilot agreement for remote cross-border access on demand of certain books

A pilot agreement between the National Library of Sweden on the one hand and organizations representing literary and visual rights, i.e. the Visual Copyright Society in Sweden (*Bildupphovsrätt*), the Swedish Writers' Union (SFF), the Swedish Publishers' Association (SvF) and Copyright Society of Malawi (COSOMA), on the other, was entered in the November 2018.

One of the main objectives of the pilot agreement was to illustrate how the ECL legislation, which originates in Sweden and traditionally has been perceived as requiring a Scandinavian mind-set to be used, has also been implemented in a country with a different legal tradition – Common Law – and eventually combined with the Swedish ECL legislation and the ECL agreements through joint licensing to show on the conceptual level that cross-border access can be achieved between a country in the EU and a country outside of the EU, thus indicating the ECL can enable cross-border access on a global level.

The National Library of Sweden holds a large collection of books. The National Library of Sweden's vision is to facilitate access to its collections on a global scale. The aim is to investigate the possibility to transform the existing national interlibrary loan system in exchange for digital access. The intention is to investigate what is required to provide access to digitized books over the Internet using the streaming method. Such access requires copyright authorisation pursuant to a specific procedure. In order to create practical conditions, which make it possible for the designated archives and libraries to obtain such authorisation; a specific provision has been introduced into the Copyright Act regarding ECL for the access described above.

Within the framework of this agreement, what is meant by the term "research" is the scientific work being conducted by Ph.D. students and researchers with a Ph.D. affiliated to an institution of higher education or a research institute at one (1) or two (2) universities in Malawi.

The pilot agreement covers the reproduction of and making available in Sweden the copyright-protected books published between 1940 and 1959. The source material (titles) to be included in the pilot agreement has been published by a Swedish publisher and in the Swedish language. The pilot agreement covers licensing of rights vesting in authors of literary and visual material in the source material whose affected rights represent the organizations mentioned above.

For the period of the pilot agreement *Bildupphovsrätt*, SFF, SvF and COSOMA grant the National Library of Sweden the right to make the source material at the National Library of Sweden available at the request of researchers, at one or two universities in Malawi (the recipients), through a special access service linked to the National Library of Sweden's Internet domain (the remote access service).

The parties agree that the agreement is accorded with the ECL in the broadest possible sense with respect to works of the type licensed through the agreement. Irrespective of the above-stated, however, affected rights holders may, in accordance with the legislation and/or the terms and conditions stated in the agreement, give notice of prohibitions against the use of their materials.

It is noted that any time under the term of the contract, the members of *Bildupphovsrätt*, SFF and SvF can opt out and prohibit the use of parts of the repertoire or in whole. One purpose of the pilot agreement is to identify the relevant and adequate mechanism for such an opt-out to safeguard the interest of the said rightholders, as well as to minimize the transactions costs for all parties involved.

The contract is under the Swedish law (Copyright Act Section 42 A and B) and Malawi Copyright Act 2016, and Section 58) accorded extended effect as to the rightholders not represented by *Bildupphovsrätt*, SFF and SvF based on mandates (the extended effect of the ECL).

Pilot agreement on access of broadcasts, audio-visual and image materials

On 24 May 2018, the National Library of Latvia and the National Library of Sweden signed a Memorandum of Understanding (MoU). The purpose of signing the Memorandum was to explore possibilities for users at the respective libraries to have remote cross-border access to certain collections. The parties to the MoU have agreed, as a first step, that the copyright issues that have to be addressed will be elaborated on in a pilot study to show how the access to Swedish materials could be provided under a bilateral representation agreement, using the legal devices for facilitated rights clearance available in Latvia and Sweden respectively. The purpose would be to verify whether additional instruments might actually be necessary to achieve cross-border uses in the fields of non-commercial research and higher education of cultural heritage.

Dependent on relevance and rights clearance three collections might be initially possible for the pilot agreement.

– Latvian radio broadcasts produced by Swedish Radio 1989-1993

The National Library of Sweden holds a collection from the years 1989-1993 of broadcasts in Latvian. The Swedish Radio produced the programme under the name Radio Sweden. There are no records of the programme, only the documentation about the broadcast UTC time in the Latvian language. There is no information about participants or description of the broadcast content. Exactly how many programmes there are is difficult to assess. If the information at hand has been correctly interpreted, there is one file per day except Saturday and Sunday with Latvian starting on 23.03.1989 and ending 19.01.1993. Furthermore, some dates might be missing due to individual programmes not being recorded.

The tests were made with automatic takeout. After the checks conducted by the National Library of Latvia it could be concluded that the start and end times shift. Fine-tuning is needed, which can only be done if download is allowed. Considerable amount of manual tuning is necessary in order to make the collection available.

– Latvian film recordings from the 1920's

The National Library of Sweden holds a collection of newsreels called Journal Digital. The focus of the collection is on towns, cities, handicrafts, society, and the pre-1910 movies. The collection encompasses the materials of the period from 1897 to the 1960s. The collection contains, a number of films from the 1920s filmed in Latvia. All films from Latvia have already been digitized and have proper metadata.

The holder of the copyright is the Swedish public broadcaster Swedish Television (SVT). SVT has already allowed access to the collection on the National Library of Sweden and Swedish Film Institute joint collaboration site *filmarkivet.se*. Although every film made available on the site is additionally checked for clearance on an object-by-object basis, it is neither sufficient nor adequate. The reason is that such a rights clearance is very time-consuming and does not enable the library to make orphan works available, and thus it is not suitable for mass digitization and making it available on the Internet.

For the purpose of project at hand, the National Library of Sweden would favour the rights clearance, which would have more longstanding (sustainable) effects on the possibility to give access to the collection that, after all, is the overall purpose.

– *Material from Ansis Rozenbachs collection*

The National Library of Sweden holds the private film archive of Ansis Rozenbachs. It contains private films from 1957 – 1975. There are no action descriptions, although Ansis' son has briefly described the content. These descriptions form the base of the metadata. Further information is found on the film boxes in Latvian. According to Ansis' son, the photographer has mainly been his father Ansis Rozenbachs, born 1924, who came to Sweden as a refugee in 1950. The film material is related to Latvian refugees' life and culture in Sweden. The films also include visits to Latvian friends outside Sweden. The films have been digitized. The material includes unknown rightholders. The permission to include the collection in this project would also be needed from the successors in the title of Ansis Rozenbachs.

All three collections are of possible interest to Latvian audiences and they would at first glance require different rights clearances. However, from a mass usage perspective, it may be inappropriate to differentiate the three collections from each other or the rest of the National Library of Sweden's collection as far as the rights clearance is concerned.

First, to separate the radio broadcasts from other broadcasts in the National Library of Sweden's collection is immensely time-consuming and the metadata are sparse. An issue to explore within this collection of radio programmes is the possibility to clear the content when the documentation and records are incomplete or lack essential information regarding, for example, music pieces that are used. Regarding the newsreels, Journal Digital of the National Library of Sweden would favour the rights clearance, which would have more longstanding (sustainable) effects on the possibility to give access to the whole collection, which, after all, is the overall purpose. Finally, the private film archive of Ansis Rozenbachs includes the rights of unknown as well as known rightholders.

Even if most users may have an interest in accessing only certain collections, as in this case, neither Library can foresee which part of the collection a user might be interested in. The approach should therefore be that the user is one of many users and that the kind of usage, which should be addressed, is the one usually referred to as mass usage.

What has been said above regarding rightholders and metadata has obvious indications on rights clearance – both as a kind of licence, which is required, as well as rights management (compare Directive 2014/26/EU of the European Parliament and of the Council of 26 February 2014 on collective management of copyright and related rights and multi-territorial licensing of rights in musical works for online use in the internal market).

Direct licensing is not suitable for enabling mass usage. Since many works are orphan and finding rightholders who have not mandated a CMO to represent them is not only immensely time-consuming but also simply not a realistic enterprise, rights clearance utilising Extended Collective Licenses would be preferred.

The copyright regime in Sweden enables licensing of copyright protected works through the Extended Collective Licence, which encompasses rightholders not represented by a CMO. In Latvia, on the other hand, no such scheme exists. Licensing in Latvia would be based on risk management, i.e. by an agreement between the library and the Latvian CMO, and the CMO undertakes to remunerate also rightholders not represented by a CMO, under the so-called indemnity clause. When licensing in the same country, such a scheme is feasible, but when licensing across the border, risk management is not a favourable solution neither for users nor for CMOs.

The risk management of the right clearance of foreign works or audio-visual materials with many different rightholders means that the risk must be minimized to the greatest extent possible. Therefore, the repertoire, which can be licenced, is most likely narrowed down to works that were predominantly in-house productions. Hence, risk management is less attractive for the user since less content can be made available. It is also less attractive for the CMO since transactions costs increase when engaging in risk management. Such costs have ultimately to be borne by the user, i.e. the library.

The ECL, on the other hand, means legal certainty and, consequently, transactions costs are lower and the repertoire is more diverse. Thus, the cross-border effect of the Extended Collective Licence cannot be achieved by joint licensing by CMO's in two countries providing an ECL in one country and traditional collective licensing in combination with risk management in the other.

Furthermore, when entering into a risk management contract, the question to be addressed is who should bear the risk, i.e. indemnify the rightholder and pay the premium? As always, it has to be the party of the contract who benefits from the risk, in this case, the National Library of Latvia.

Implications of the DSM directive

Apart from the abovementioned best practice cases, the new Directive (EU) 2019/790 of the European Parliament and of the Council of 17 April 2019 on copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC (DSM Directive) have to be analysed in order to gain an insight into the avenues of further expanding cross-border access of digitised cultural heritage materials under the copyright protection.

The DSM Directive was adopted on April 17, 2019. The Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with the DSM Directive by 7 June, 2021. It addresses a number of issues mentioned above, including out-of-commerce works and licencing.

Out-of-commerce works

We have elaborated above on the copyright conundrum of non-represented rightholders who are not or cannot be represented by a CMO, which is the rationale behind ECL. In the DSM Directive, this issue is addressed in Recital 30 regarding the so-called out-of-commerce works:

“The particular characteristics of the collections of out-of-commerce works or other subject matter, together with the amount of works and other subject matter involved in mass digitisation projects, mean that obtaining the prior authorisation of the individual rightholders can be very difficult. This can be due, for example, to the age of the works or other subject matter, their limited commercial value or the fact that they were never intended for commercial use or that they have never been exploited commercially. It is therefore necessary to provide for measures to facilitate certain uses of out-of-commerce works or other subject matter that are permanently in the collections of cultural heritage institutions.”

According to the DSM Directive, “the cultural heritage institutions should benefit from a clear framework for the digitisation and dissemination, including across borders, of works or other subject matter that are considered to be out of commerce for the purposes of this Directive” (Recital 30). This is the reason for introducing the out-of-commerce licence legislation in Articles 8–11.

The DSM Directive states that “All Member States should have legal mechanisms in place allowing licences issued by relevant and sufficiently representative collective management organisations to cultural heritage institutions, for certain uses of out-of-commerce works or other subject matter, to also apply to the rights of rightholders that have not mandated a representative collective management organisation in that regard.” (Recital 31).

But what if it is not possible to obtain a licence? This scenario is also addressed in the DSM Directive (Recital 32):

“As the case may be the provisions on collective licensing of out-of-commerce works or other subject matter introduced by the DSM Directive might not provide a solution for all cases in which cultural heritage institutions encounter difficulties in obtaining all the necessary authorisations from rightholders for the use of out-of-commerce works. That could be the case for example, where there is no practice of collective management of rights for a certain type of work or other subject matter or where the relevant collective management organisation is not sufficiently representative for the category of the rightholders and of the rights concerned. In such particular instances, it should be possible for cultural heritage institutions to make out-of-commerce works or other subject matter that are permanently in their collection available online in all Member States under a harmonised exception or limitation to copyright and related rights. It is important that uses under such exception or limitation only take place when certain conditions, in particular as regards the availability of licensing solutions, are fulfilled. A lack of agreement on the conditions of the licence should not be interpreted as a lack of availability of licensing solutions.”

One of the examples in Recital 32 of a situation when a licence cannot be obtained is where the relevant CMO is not sufficiently representative for the category of the rightholders and of the rights concerned. This example is relevant from a broader perspective, i.e. the requirement of a CMO to be sufficiently representative to be able to provide an ECL. The DSM Directive elaborates on this issue of principle importance (Recital 33). It says: “Member States should, within the framework provided for in the DSM Directive, have flexibility in choosing the specific type of licensing mechanism, such as extended collective licensing or presumptions of representation, that they put in place for the use of out-of-commerce works or other subject matter by cultural heritage institutions, in accordance with their legal traditions, practices or circumstances. Member States should also have flexibility in determining what the requirements for collective management organisations to be sufficiently representative are, as long as that determination is based on a significant number of rightholders in the relevant type of works or other subject matter having given a mandate allowing the licensing of the relevant type of use.”

The DSM Directive leaves it to Member States to determine what the requirements for collective management organisations to be sufficiently representative are, as long as that determination is based on a significant number of rightholders in the relevant type of works or other subject matter having given a mandate allowing the licensing of the relevant type of use. It is likely that the result of Member States’ legislation and best practices will vary and as a result, it will be ultimately for the Court of Justice of the European Union to determine when a CMO is sufficiently representative.

It is important that existing best practices, primarily in the Nordic countries, be taken in consideration when Member States implement the DSM Directive in this respect. Otherwise, we could end up with an interpretation, which could potentially have a very negative effect on ECL overall and result in lock-in effects since the exception for out-of-commerce works is not applicable for other than cultural heritage institutions. For example, a Private Partner in a Public-Private Partnership could potentially not be able to obtain an ECL, which would be a precondition for the Public-Private Partnership as such.

To support adequate best practice in the European Union, CMOs ought to cooperate and learn from the more experienced CMOs. Moreover, this ought to apply for Member States in their transposition of the DSM Directive. We believe a CMO should be representative for the rights concerned regardless whether or not e.g., a literary work has a professional writer as an author. The CMO should be representative if the organisation represents people who are authors regardless of their "professional title" or if they are not professional creators, but rather merely amateurs. The law does not distinguish between different kinds of works based on the kind of person who created it.

What kind of works and other subject matter could be made available under the out-of-commerce licence and the exception? As we interpret the DSM Directive (Recital 37), it should be understood as all kinds of work permanently in the collection of a cultural heritage institution, including where they have never been commercially available. "Never-in-commerce works can include posters, leaflets, trench journals or amateur audio-visual works, but also unpublished works or other subject matter, without prejudice to other applicable legal constraints, such as national rules on moral rights." (Recital 37). Is it required that the work or other subject matter has been made available to the public with the consent of the rightholder? The DSM Directive is silent on this topic. Does that imply there is no requirement of such kind and that a CMO can licence out-of-commerce works and other subject matter, which have been made available to the public, e.g., donated to the library to be made available for study and research?

The DSM Directive states that, in addition to the requirement of the work and other subject matter to be out-of-commerce, Member States may provide for specific requirements, such as a cut-off date (Article 8.5.2) "in order to reflect the specificities of different types of works and other subject matter as regards modes of publication and distribution" (Recital 37).

The idea that a work and other subject must be out-of-commerce for a cultural heritage institution to digitise and make them available is a novelty in the European Union law. The ECL scheme on which the out-of-commerce works licence is modelled does not require works or other subject matter to be out-of-commerce. The background of the out-of-commerce licence has been elaborated on above. The MoU on Out-of-Commerce Works is not elaborate as the DSM Directive on how to determine whether a work or other subject matter is out-of-commerce. The bureaucracy required when "operating" an out-of-commerce licence is likely to prove to be cumbersome and costly. In the following, we quote the relevant recitals in full.

"(38) When determining whether works or other subject matter are out of commerce, a reasonable effort should be required to assess their availability to the public in the customary channels of commerce, taking into account the characteristics of the particular work or other subject matter or of the particular set of works or other subject matter. Member States should be free to determine the allocation of responsibilities for making that reasonable effort. The reasonable effort should not have to involve repeated action over time but it should nevertheless involve taking account of any easily accessible evidence of upcoming availability of works or other subject matter in the customary channels of commerce. A work-by-work assessment should only be required where that is considered reasonable in view of the availability of relevant information, the likelihood of commercial availability and the expected transaction cost. Verification of availability of a work or other subject matter should normally take place in the Member State where the cultural heritage institution is established, unless verification across borders is considered reasonable, for example in cases where there is easily available information that a literary work was first published in a given language version in another Member State. In many cases, the out-of-commerce status of a set of works or other subject matter could be determined through a proportionate mechanism, such as sampling. The limited availability of a work or other subject matter, such as its availability in second-hand shops, or the theoretical possibility that a licence for a work or other subject matter

could be obtained should not be considered as availability to the public in the customary channels of commerce.”

“(39) For reasons of international comity, the licensing mechanism and the exception or limitation provided for in this Directive for the digitisation and dissemination of out-of-commerce works or other subject matter should not apply to sets of out-of-commerce works or other subject matter where there is evidence available to presume that they predominantly consist of works or other subject matter of third countries, unless the collective management organisation concerned is sufficiently representative for that third country, for example via a representation agreement. That assessment could be based on the evidence available following the making of the reasonable effort to determine whether the works or other subject matter are out of commerce, without the need to search for further evidence. A work-by-work assessment of the origin of out-of-commerce works or other subject matter should only be required insofar as it is also required for making the reasonable effort to determine whether they are commercially available.”

“(41) Information regarding the ongoing and future use of out-of-commerce works and other subject matter by cultural heritage institutions on the basis of this Directive and the arrangements in place for all rightholders to exclude the application of licences or of the exception or limitation to their works or other subject matter should be adequately publicised both before and during the use under a licence or under the exception or limitation, as appropriate. Such publicising is particularly important when uses take place across borders in the internal market. It is therefore appropriate to provide for the creation of a single publicly accessible online portal for the Union in order to make such information available to the public for a reasonable period before the use takes place. Such portal should make it easier for rightholders to exclude the application of licences or of the exception or limitation to their works or other subject matter. Under Regulation (EU) No 386/2012 of the European Parliament and of the Council (11), the European Union Intellectual Property Office is entrusted with certain tasks and activities, financed by making use of its own budgetary means and aimed at facilitating and supporting the activities of national authorities, the private sector and Union institutions in the fight against, including the prevention of, infringement of intellectual property rights. It is therefore appropriate to rely on that Office to establish and manage the portal making such information available.

In addition to making the information available through the portal, further appropriate publicity measures might need to be taken on a case-by-case basis in order to increase the awareness in that regard of the rightholders concerned, for example through the use of additional channels of communication to reach a wider public. The necessity, the nature and the geographic scope of the additional publicity measures should depend on the characteristics of the relevant out-of-commerce works or other subject matter, the terms of the licences or the type of use under the exception or limitation, and the existing practices in Member States. Publicity measures should be effective without the need to inform each rightholder individually. ”

As is evident from the text quoted above, this is a kind of prescriptive legislation. As such, it is very different to the ECL legislation, which is based primarily on a contract by which the parties determine the repertoire to be licenced. The out-of-commerce works licence requires in addition to the contract the works and other subject matter to be out-of-commerce. Why this measure has been introduced when you have the contract and opt-out for both the represented rightholders (opt-out under the contract) and non-represented rightholder (opt-out under the law) is not evident. In this sense, the out-of-commerce licence deviates significantly from the “ordinary” ECL under Article 12. One could argue that the kind of “diligent search”, although the word is not used in the DSM Directive, which is required to conclude for a work to be out-of-commerce, should not be required. The CMO that licences the works and other subject matter must be sufficiently representative for

the rights concerned. Some CMOs also have as members, e.g., authors' organisations. In addition to mandates from such members, mandates could be acquired by entering into cooperation agreements with other organisations, e.g., organisations representing producers in order to achieve a higher degree of representation. These represented rightholders usually are the ones that have an active interest in the rights concerned. If they opt in to the contract, it should be sufficient. It is unclear if the precondition of a work to be out-of-commerce has been introduced to safeguard the non-represented rightholder or not. Those rightholders nevertheless already have a safeguard – the opt-out under the law. That safeguard ought to be sufficient.

As to the cross-border uses, the DSM Directive has two options depending on if a licence can be obtained or not (Article 9):

“1. Member States shall ensure that licences granted in accordance with Article 8 may allow the use of out-of-commerce works or other subject matter by cultural heritage institutions in any Member State.

2. The uses of works and other subject matter under the exception or limitation provided for in Article 8(2) shall be deemed to occur solely in the Member State where the cultural heritage institution undertaking that use is established.”

Article 9.2 on the cross-border aspect of the exception for making out-of-commerce works available is clearly based on copyright relevant action deemed only to take place in the Member State where the cultural heritage institution is situated.

There is no explicit reference to the Country of Origin Principle as to the licences granted in accordance with Article 8 of the DSM Directive. The DSM Directive just states the licence should cover all Member States, but does the DSM Directive nevertheless imply a legal fiction?

What is the relationship between ECL and out-of-commerce licencing? The DSM Directive states (Recital 43) that the latter licence scheme “should be without prejudice to the use of out-of-commerce works or other subject matter under other licences with an extended effect, where such licensing is not based on the out-of-commerce status of the covered works or other subject matter. Those measures should also be without prejudice to national mechanisms for the use of out-of-commerce works or other subject matter based on licences between collective management organisations and users other than cultural heritage institutions”.

Nevertheless, the interpretation of requirements such as the CMO to be sufficiently representative is clearly related to the interpretation of the same requirement for a CMO in Article 12 regarding ECL. It is too early to conclude anything regarding the interplay between Articles 8–11 and Article 12. The DSM Directive regulates both schemes. This is of fundamental importance since the MoU on Out of Commerce Works, which subsequently lead to Articles 8–11 in the DSM Directive, has its origin in the Nordic ECL legislation. Is the out-of-commerce scheme to be perceived as *Lex specialis* and should it not in any respect have an effect of ECL? One thing is certain though, i. e. that there is a relationship between the two schemes. When the European Commission submits the report on ECL in the first quarter of 2021 (Article 12.6), e.g., the cross-border use of ECL, the relationship between these two schemes will most likely be of some relevance. The bureaucracy required when “operating” an out-of-commerce licence can very likely prove to be cumbersome and costly. If such a requirement is introduced for ECL, it may very well be contra productive to the overall purpose of Article 12, which is “Given the increasing importance of the ability to offer flexible licensing schemes in the digital age, and the increasing use of such schemes...to provide

for licensing mechanisms which permit collective management organisations to conclude licences, on a voluntary basis, irrespective of whether all rightholders have authorised the organisation concerned to do so” (Recital 46).

Extended Collective Licencing

The DSM Directive Article 12 regulates national ECLs and it states (see Recital 46): “Given the increasing importance of the ability to offer flexible licensing schemes in the digital age, and the increasing use of such schemes, Member States should be able to provide for licensing mechanisms which permit collective management organisations to conclude licences, on a voluntary basis, irrespective of whether all rightholders have authorised the organisation concerned to do so. Member States should have the ability to maintain and introduce such mechanisms in accordance with their national traditions, practices or circumstances, subject to the safeguards provided for in this Directive and in compliance with Union law and the international obligations of the Union.”

In contrast to Articles 8–11 of the DSM Directive, the ECL is not exclusively an option for cultural heritage institutions. It can also be used by other entities than cultural heritage institutions, including commercial enterprises. As such, it is suitable for Public-Private Partnerships. This aspect of ECL is very important since the demand for cultural services may change over time and could very well involve or even require for financial reasons a Private Partner.

What are the implications of the DSM Directive (Article 12) on the ECL for the Finnish National Gallery, if any? The wording of the DSM Directive (see Recital 46) is “the use within their territory”. The act of making available to the public definitely takes place in Finland. Moreover, the availability extends to the whole world. The mere act of having access though is not relevant for the purposes of copyright. This was a simple philosophy (country of origin) behind the ECL for the Finnish National Gallery.

Does the DSM Directive say anything that could be an obstacle for the Norwegian initiative? In Article 12.1. it is stated that “Member States may provide, as far as the use within their national territory is concerned...” In Recital 46 it is stated: “Such mechanisms should only have effect in the territory of the Member State concerned, unless otherwise provided for in Union law.”

For the moment, there is only limited legal support in Union law for national ECL schemes as far as the extended effect of a licence to have legal effect in any country other than in the Member State in which the ECL licence was provided by a CMO is concerned (see Article 5.3, 8 and 9 of the DSM Directive). Thus, it would require an EU Directive or EU Regulation to achieve any extraterritorial effect of a national ECL in respect of the extended effect of the said licence.

Notwithstanding the above, with a treaty between the Nordic countries one could have achieved the validation required but it would have presupposed that the receiving country had enacted a law by which the extended effect of an ECL provided in the other Nordic country was legalised – reciprocity to achieve the desired cross-border effect between the Nordic countries (by explicit mutual recognition in the respective countries). But the Directive does not seem to establish the basis for such practices. However, in fact, the whole idea to close the markets to national territories seems to be contrary to the whole idea of the DSM Directive and the European Digital Single Market.

Other aspects should also be addressed in this context. Member States will be neither inclined, nor encouraged to initiate any cooperation in this area because the Union will be in control of the concept of ECL (Article 12) and follow up on national developments in this field of licensing. CMO will most likely be reluctant to engage in any kind of ECL licensing, which is in the “grey” zone and not legally explicitly accepted by Union law, i.e. the DSM Directive.

This is unfortunate, and should be mended, when the European Commission reports on the use of the ECL in the Member States, and makes a legislative proposal, if appropriate, including as regards the cross-border effect of such national mechanisms.

Finally, what if any of the implications of Article 12 of the DSM Directive on the model for cross-border licencing referred to in the ALAI Opinion and put into practice in the Swedish cross-border pilot projects with Finland and Malawi, i.e. a traditional collective licencing based on reciprocal agreements (implying exchange of repertoires) and national ECL provisions extending the effect of the collective license to non-represented rightholders? Since this model does not require extraterritorial effect of the ECL in such cases, it is not in conflict with Article 12 of the DSM Directive.

Recommendations

To enable wider cross-border accessibility of copyright protected cultural heritage materials across the Baltic Sea countries it is necessary to achieve interoperability as far as technology and legal solutions are concerned. If the infrastructure in respective countries is not interoperable, no access is achieved. The same is true for legal aspects of cross-border accessibility such as copyright and data protection – the key element is interoperability.

The DSM Directive and its implementation will have a crucial effect on the cross-border access to works and subject matter of related right in the European Union. At this junction, there is a reason to emphasize that the necessary interoperability may only be achieved by a coordinated process of implementation of the Directive, embracing all Member States as well as the EEA States. The national solutions in the implementation should be similar, if not the same, and compatible with each other, in order to provide a possibility to establish a European area of access and accessibility for cultural institutions and other market operators and at the same time not creating new barriers to third countries.

Out of Commerce licences

Under an ECL, the repertoire to be made available by the library is determined by the parties in the contract. In addition to the contract, the out-of-commerce licence requires that works and other subject matter must be out-of-commerce, which disqualifies simultaneous licencing of works still in commerce. This is, of course, an impediment and makes the out-of-commerce licence less attractive. The transaction costs will most likely be higher with the out-of-commerce licence considering the cumbersome and costly administration of the licence and the “diligent search” of in-commerce-works, which have to be excluded.

As concluded above, both schemes enable cross-border access. The out-of-commerce scheme though might incur less cost for the CMO since no reciprocal agreements would be required compared with the model applied in the National Library of Sweden pilot projects.

The ECL schemes in the National Library of Sweden’s ECL pilot projects are conducive for other audiences as well, e.g., students and the public at large. Such a scheme would be possible to put in place in the Nordic countries with a long tradition of ECL licencing and with CMOs with reciprocal agreements. Nevertheless, in other Member States with not as well organised CMOs and no experience of ECL the out-of-commerce scheme might be favoured.

Notwithstanding the above discussed, the out-of-commerce ECL could at first glance be perceived as an adequate alternative even in a country that has a long tradition of ECL, if the purpose is to provide a literature canon for its citizens when they are abroad in the European Union, be it for vacation or work temporarily or for a longer period of time. One substantial drawback though is that the canon would have to exclude all in-commerce-works. Such a repertoire would, of course, not be as meaningful.

With an ECL, the entire repertoire could potentially be made available. It would be decided in the contract between the library and the rightholders. The licence fee would compensate the rightholders for the usage. Even though a flat rate is paid, it could be differentiated depending on the kind of literature made available to the patrons, e.g., in-commerce books.

In countries with no experience of ECL and with CMO's, which lack the necessary reciprocal agreements with CMOs in other countries, the out-of-commerce ECL in the DSM Directive (Articles 8–11) may be to recommend. Such a scheme may induce less transaction costs on behalf of CMOs compared to the ECL/joint licensing. On the other hand, it is still not known how much work will be required to perform to conclude if a work is out-of-commerce. However, perhaps still more important for research, to exclude in-commerce works would be an impediment, and the only valid alternative would be an ECL (DSM Directive Article 12).

ECL agreements

There are five possible approaches to overcome the supposedly territorial conundrum of ECL:

- No copyright relevant action takes place outside the country of the cultural heritage institutions, i.e. the extended effect of the ECL is not desired because it is not required.
- If objections were to be raised that copyright relevant actions are taking place outside the country of the cultural heritage institutions one could argue that the compulsory exception for temporary copies in Article 5.1 Infosoc Directive applies and should be introduced on a global scale. This is, of course, subject to that the relevant use is "lawful use", which includes cases where the use is permitted under a limitation or exception.
- Only one copyright relevant action takes place in the European Union (compare the DSM Directive Art. 5.3, 8 and 9.2 and Art. 3 Directive (EU) 2019/789 of the European Parliament and of the Council of 17 April 2019 laying down rules on the exercise of copyright and related rights applicable to certain online transmissions of broadcasting organisations and retransmissions of television and radio programmes, and amending Council Directive 93/83/EEC).
- The fourth solution could be as referred to in the ALAI Opinion and put into practice in the Swedish cross-border pilot projects with Finland and Malawi, i.e. a traditional collective licensing based on reciprocal agreements (implying exchange of repertoires) and national ECL provisions extending the effect of the collective license to non-represented rightholders.
- The fifth solution could be as referred to in the ALAI Opinion through a bilateral or multilateral arrangement between states, although not in the EU where it would be more likely that the European Commission would consider a directive or a regulation (mutual recognition in analogy with the Orphan Works Directive), or by a specific provision in an international treaty.

We elaborate below on these solutions to enable wide cross-border accessibility of copyright protected cultural heritage materials in the Baltic States in relation to different kinds of source material, user groups and the potential friction with the primary market.

– **No copyright relevant action takes place outside the country of the cultural heritage institution**

The Finnish ECL referred to above (see Finnish National Gallery – Virtual National Gallery example) enables access in all countries of the world. The perception is that no copyright relevant action takes place except in Finland, or in other words, no extraterritorial effect is desired because it is not required.

Compared to traditional collective licence, which can be granted by the rightholders to provide global access, the only restriction would be the licence fee, i.e. not a copyright issue but a question of how to consider all aspects of the wide potential audience, and to fund the making available of works.

Should an ECL be perceived as no different to a traditional collective licence? That the extended effect of the ECL is required only in the country where the cultural heritage institution is situated to clear all relevant rights and the targeted audience abroad can access the virtual cultural heritage institution on-line and “walk into” the cultural heritage institution (server), which is situated in the country of the cultural heritage institution. In such cases, no copyright relevant action takes place outside of the country where the cultural heritage institution is situated. Thus, the Finnish National Gallery – Virtual National Gallery model, which is understood to have no extraterritorial effect of the ECL, is not against the condition stated in the DSM Article 12, Paragraph 1.

This kind of ECL is recommended for the kind of works described above, i.e. fine art and photographs as well as manuscripts and other documents of the same kind, i.e. a document with one author or very few rightholders such as the heirs of the author. But is the scheme conducive for licensing of, e.g., daily newspapers or broadcasts with complex layers of rights which could include non-represented rights holders from another Member State or a Third Country? Would such works rather require the extended effect in the receiving country? Would it be so that joint licensing (the National Library of Sweden’s cross-border pilot agreements on broadcasts) or out-of-commerce ECL scheme (see Articles 8–11 of the DSM Directive) would be favourable? This will be elaborated upon below. As to Article 8-11 of the DSM Directive it should be mentioned that to the extent a licence cannot be provided by a CMO there is an exception for out-of-commerce works in the Directive that provides a fall-back solution.

– **A compulsory exception for temporary copies**

If objections were to be raised that copyright relevant actions do take place outside the country of the cultural heritage institution one could argue that the compulsory exception for temporary copies in Article 5.1 Infosoc Directive applies in the EU – how else could one *Google*? In addition, such an exception should be introduced on a global scale through a WIPO treaty to provide legal certainty since a global dimension is default.

– **No copyright relevant action takes place outside the country of origin**

Broadcasters traditionally distribute ‘linear’ broadcast television and radio content. Users can access ‘linear’ content services only at the particular time they are offered and on the particular TV channel which they are presented. The main characteristic of ‘non-linear’ content services (VOD or catch-up services) is the autonomy they offer to the user to decide what they want to watch, where, when, and on which device they want to watch it.

Television and radio broadcasting content incorporates a variety of copyright protected content (including audio-visual, musical, literary or graphic works). Because of the principle of territoriality – under which copyright is normally acquired and protected on a country-by-country basis – broadcasters transmitting online television and radio programmes need to clear the rights for the relevant territories before making their online services available across borders. This means that they must obtain authorisation to transmit and make available the protected content for all of the Member States in which they transmit their programmes, often from a multitude of rightholders and in a short time frame.

Such copyright clearance requires engaging in a complex process to obtain the online rights (given the national disparities in provisions on copyright), and generates high transaction costs, which in turn reduce the broadcasters' incentives to provide cross-border services. As a result, TV broadcasters often make their online services available in a single Member State and put measures in place that prevent cross-border access to these services, such as geo-blocking of IP addresses from other territories.

A library corpus includes many audio-visual works as well as newspapers with complex layers of copyright protected works and other subject matters. Libraries are therefore confronted with the same challenge as broadcasters although not a rightholder (broadcasters often have their own producers' rights, as well as rights acquired from the different groups of rightholders).

The experience from the European Union legislation on this matter is the one of friction between stakeholders. In September 2016, the European Commission proposed a Regulation to facilitate the licensing of rights for certain online transmissions of broadcasters and retransmissions of television and radio programmes. As part of the political agreement reached on 13 December, 2018, the EU co-legislators agreed to turn the proposed regulation into a directive, which are finalized and adopted. The legislation has been watered down from a regulation on all content to in-house news broadcasts. The reason for this is predominately the potential friction with the primary market and perceived potential threat such friction could pose to some rightholders.

The potential friction with the primary market is a very important aspect, since ECL should only be applied in cases when traditional collective licensing is typically onerous. The approach of the broadcasters was that the regulation would enable the access in the entire EU to broadcasters' archives. Such an access would inevitably create a friction with the primary market. It is consequentially very important for the legislator to be diligent when introducing new ECL legislation to safeguard the primary market from unwanted competition from libraries. The risk is potentially more obvious with the broadcasters' approach in the regulation than the final directive.

If a cultural institution targets certain user groups (audiences), which typically do not constitute an existing market or a potential market for commercial content, an ECL could be very useful for making a virtual library accessible outside the country of the cultural heritage institution. The key element is the contract, which, on the one hand, requires the rightholders to opt-in and, on the other hand, provides a safeguard, the opt-out. The opt-out provides the safeguard for the rightholders who opted into the contract to opt-out of the same under the terms and conditions set out in the contract and for the outsiders – i.e. the rightholders not represented by the CMO – to have a legal right to opt-out of the scheme. These mechanisms provide the adequate safeguards for the ECL to enable access without creating friction with the marketplace.

The reason why the ECL has of yet not been accepted to be applied along the lines of the new Broadcast / online Directive in other sectors of the society may be that many rightholders / stakeholders have less or even no experience of ECL and thus take a safe standpoint and say no to such a scheme to be introduced, rather than engage in a discussion on how ECL could supplement

traditional licencing. Launching pilot projects could be a way forward engaging all rightholders and building trust as well as new best practices.

It is to be noted that the DSM Directive creates an extraterritorial effect (Article 8.1, with the support of Article 9, which introduces and applies the country-of-origin principle and which both require the extraterritorial aspect to be implemented in each Member State's legislation).

– **Reciprocal agreements and national ECL provisions extending the effect of the collective license to non-represented rightholders**

ECL agreements based on national ECL provisions may be used under certain conditions in cross-border situations and the cross-border effect of the ECL, or a combined ECL effect, may be achieved by joint licensing by CMO's in two or more countries providing an ECL. Although on a greater scale this model could be perceived as complex, artificial and too much dependent on to what extent CMO's in different countries are willing to cooperate and take a potential risk. Examples of this kind of uses of cross-border ECL are the Swedish National Library's cross-border pilot schemes regarding broadcasts and books.

The benefit of such a solution is that the repertoire, which can be licenced, is not hampered as with out-of-commerce ECL or the alike licencing by excluding in-commerce works. The National Library of Sweden pilot schemes are especially useful for research, be it studying source material or applying technology such as TDM for granting lawful access (see DSM Articles 3 and 4). Any exclusion of works, such as with out-of-commerce ECL, is detrimental for scientific research. In the field of scientific research, the default should be all works and for such usage, the ECL schemes in the National Library of Sweden's ECL Pilot projects are recommended.

– **Bilateral or multilateral arrangement between states or by a specific provision in an international treaty**

It should be stressed that the DSM Directive will have no relevance for making available culture heritage outside of the EU. This may very well be of the greatest relevance for research and higher education but it could also be of importance to other categories of user groups.

Research is to a great extent performed on an international level. Higher education in countries outside of the EU may desire to access source material in the Baltic States. One example is the Scandinavian Studies Department at different universities outside of the European Union, which have an interest to access the material from the Scandinavian countries. As to other user groups, one could use Latvia as a potential candidate for granting access to its culture heritage to persons of Latvian ancestry who reside in the United States of America.

Thus, even with the DSM Directive enacted it will still be relevant to apply ECL according to the scheme in the National Library of Sweden's Pilot Agreements unless a global treaty is entered under the auspices of WIPO or treaties between nations are entered with the effect that the extended effect of national ECLs will have legal effect in the receiving country.

A new EU regulation on mutual recognition

An additional solution, albeit somewhat premature, considering that the DSM Directive has yet to be implemented, would be a new EU regulation, which would have a direct effect in each Member State, proclaiming extraterritorial effect of national ECL agreements in the Union. Such a regulation could be construed as follows:

“An ECL agreement which is intended to be applicable in the entire Union or in specific Member States is applicable only if the following requirements are met or a reference is made to Article 12 of the DSM Directive.”

The advantage of this approach would be that it would work within the European Union as well in relation to third countries. However, the DSM Directive Article 12.1 is very specific that it will require the European Union legislation to achieve such an effect. Thus, an EU Directive could stipulate that each Member State could or should, impose legislation that stipulates that another Member State agreement on digital accessibility (with ECL-effect) will also have effect in the country concerned. Or even better if a European Union regulation stipulates the same, i.e. a Member State agreement on digital accessibility (with ECL-effect) would also have effect in any and all Member States all depending on what the contracts stipulate – in some cases it may for financial reasons not be desired to give access in all Member States because it would incur high licence fees.

Data protection

Assessing the tension between digital cultural services and data protection leads to a number of different questions: How can both researchers and libraries utilize digital cultural services in order for cultural heritage institutions to improve information services and offer new insights into their collections while at the same time comply with data protection laws? To what extent do cultural institutions process “personal data” within the meaning of data protection law in the first place? Which data protection principles or rules cause the main obstacles to digital cultural services? How can digital cultural services be made compliant with the data protection law? What kind of data handling processes constitute “best practices” within the given context? Do any of these rules cause excessive obstacles for the use of digital cultural services, which can be avoided by using other legal protection mechanisms?

We recommend that a follow up study is commenced to identify possible obstacles in relation to data protection in making digital cultural content available across borders. We believe that cultural institutions across the Baltic Sea Region should engage in developing draft codes of conduct (GDPR Article 40) and best practices, i.e. Standard Operating Procedures (SOP). A draft code of conduct that relates to processing activities in several Member States will by default involve the European Data Protection Board. SOPs have been in use, e.g., in the pharmaceutical and food industry, for a long time to ensure quality as well as adherence to regulatory legislation. With the GDPR and the DSM Directive libraries are being at least indirectly regulated, which is something of a paradigm shift. Up until now cultural institutions have to a great extent regulated themselves, e.g., metadata standards, cataloguing, etc. At the same time libraries have the opportunity to engage in establishing codes of conduct and, possibly, to change the legislation.

When launching such a study it would be useful to consider copyright and the recommendations to best practises of licensing models provided in this report to assess whether or not the suggested best practises are still valid considering data protection.

It has to be stressed that a copyright relevant action is in all cases relevant also to data protection. The question to be answered is – can works in libraries be licenced under the suggested best practices while respecting the GDPR and supplement Member State legislation on data protection. In some Baltic Sea Region states, supplementing national legislation has been decided or is a pending decision or has yet to be investigated by a public inquiry. Therefore, we recommend a follow up report to be commenced during 2020 and for the reasons referred to above to include copyright and data protection.

Business models for making cultural heritage available on the Internet

The kind of “business model” for making the cultural institution’s materials available on the Internet across borders cannot be decided irrespective of copyright or other aspects such as data protection and information technology.

A licence for making cultural materials available in, e.g., all Baltic Sea states for all would be more expensive than a licence that differentiates between categories of users and material. Furthermore, applying a market-oriented approach, i.e. to let the user decide what content is relevant for the user, is focused on user benefit. This approach is useful as far as access to source material is concerned, but not in respect of services such as TDM, simply because, when applying such technology as TDM, a user is better off to have access to as many works as possible.

One business model for scientific research may very well require that all content in an institution is made available for the said purposes. Another business model is possibly more conducive for education as students are supposed to use the same literature for their studies. Yet another business model would most likely be useful for the general public. Unless an institution has the funding to digitise the entire collection and pay licence fees to enable the Internet access, a different approach is more likely, i.e. the one used by Public Broadcasters when providing access to their archives. In the latter case, the institution would decide what is to be digitised if it has not yet been digitised and if it is reasonable to pay the licence fee.

Besides copyright, another legal constraint to be considered is data protection. IT-infrastructure, required metadata and economical constraint have to be addressed, too. How much would different schemes incur as far as costs for staffing and technology are concerned?

When considering cross-border access and the related issues,, it will have to be done in dialogue with representatives of each participating stakeholder, including rightholders and CMOs. Depending on which model of cross-border licencing you opt for, the CMO must be interoperable, i.e. have reciprocal agreements, and the ECL legislation must be of the kind that the extended effect of a licence has the same desired effect; otherwise the repertoire in question cannot be licenced.

Furthermore, a very important factor is how to finance these endeavours, i.e. who will finally pay for the licence. If no CMO were available, the fall back exception would be applied. However, the exception would require the necessary staffing at the institution. How much costs the exception would incur is uncertain at this point. We do not know of any analyses or assessments of costs having been made. However, one could assume that the exception will not be without costs and thus it may be a hurdle to overcome if the funding is lacking. If it is concluded that it is not possible in the near future for cultural heritage institutions in the Baltic Sea Region to digitise their entire collections, an on-demand business model may be the solution before all collections have been digitised.

Several years ago, the National Library of Sweden and the Estonian National Library joined the *eBooks on Demand* consortium. It comprises 87 research and national libraries in Europe, which

have created a business model for digital public availability of those books, which are not protected by copyright. Anyone in the world can order a digital copy. The principle is one of digitisation upon the request of the person who is interested in reading the book. In 2013, the consortium initiated a discussion about how the service could be expanded to include copyright-protected books as well. To this end, a memorandum of understanding was reached through which the consortium began work to see how such a vision could be realised.

By developing an on-demand model where digitisation takes place gradually based on demand, the costs become moderate and fall within the parameters of the existing copyright situation. If cultural institutions of the Baltic Sea States do what the *eBooks on Demand* consortium has done and join forces to share the costs of a cross-border solution, which can manage the copyright problems and the financial burdens, the opportunity arises to make the knowledge in the cultural institutions of the Baltic States publicly available.

In its initial phase, this could be launched as a project between some cultural institutions such as national libraries in the Baltic Sea countries to test how the schemes described in this report work across borders in the region, but eventually also in the European Union and then outside the European Union. The long-term goal should be a global digital library, rather than a library confined to a certain region. Institutions will be able to take on the copyright and data protection challenges in cooperation with each other and their foreign counterparts, but this is unquestionably contingent on work based on a nationally and globally interoperable model.

Conclusions

Conclusions

Most of the existing cooperation between the cultural heritage organisations and specialists runs along the traditional lines of sectoral and regional cooperation – historically there are strong grassroots level cooperation traditions among institutions and professional NGOs of different cultural sectors – libraries, archives, museums, audio-visual archives, heritage organizations – between the Nordic countries and among the Baltic States. There seems to be a political support to the idea that culture is one of the main bonding engines in the Baltic Sea Region, supported by vehicles such as Policy Area Culture of the EU strategy for the Baltic Sea Region and committees and other bodies of the CBSS, Nordic Council of Ministers, Baltic Council, Baltic Assembly and so on. A notable recent example of increased cooperation in the region is the creation of the Baltic Culture Fund.

However, the digital activities of cultural heritage institutions are still rarely perceived as an integral part of their work, therefore a sustained support in this area is often lacking. In a way the fact that digitisation is an integral and cross-cutting horizontal priority for the whole of cultural sector works against promoting it more strongly. Actions that seemed innovative and cutting-edge ten years ago now seem mundane for policy makers. Certainly, a lot of public investment has been made over the years into digitisation of cultural heritage, and this policy area has therefore lost some of its appeal. It might easily seem to outsider that all the digitisation issues should have been solved by now. But this view does not take into account the sheer vastness of cultural heritage – of which digitisation has only scratched the surface so far – and the incredible speed of technical innovation, which requires to continuously reevaluate some of the digitisation aspects – especially when it comes to digital preservation and developing public interfaces and services for making the digitised materials available to public.

With this report the authors would want to stress the urgency with which the current situation should be approached, and reinvigorate the support of policy makers to the area of digitisation.

Additional resources are still required in all the countries of the Baltic Sea Region to build up the critical mass of the cultural materials for use online. Other challenges include sustainability of technical infrastructure, interoperability and development of competence. To address these challenges, we make a number of recommendations aimed both for cultural heritage institutions themselves and policy makers on a national and regional level.

V

Recommendations on increasing cross-border cooperation

Recommendations on increasing cross-border cooperation

One of the main aims of the project was to develop a set of recommendations for increased Pan-Baltic collaboration in the implementation of digital approaches in the field of cultural heritage, containing practical suggestions for cultural heritage institutions in four distinct areas of collaboration. As the previous chapters suggest, there is a lot of untapped potential in using cooperative approach in tackling current issues that the cultural heritage institutions are facing. In order to unleash this, potential experts suggest a number of practical measures in all of the reviewed area targeted at cultural heritage institutions themselves, as well as policy makers both on national and international level.

The need to transform their operations to comply with the requirements of the digital age can easily push the capacity of any institution to the brink. Most of the cultural heritage institutions do belong to the state sector, which is at the same time both advantage and disadvantage – they are free of obligation to earn reasonable return of investment; however, they are dependent on policy makers and their understanding for investment, and they lack flexibility in attracting investment, apart from project funding.

In an environment where opportunities to attract much needed investment are scarce, it is necessary to make as much impact as possible. In more than one areas, particularly in digital preservation, economies of scale apply, meaning that it is much more beneficial to invest in a centralised and jointly used infrastructure and services. In most of the Baltic Sea countries this approach is already used at least to some degree. The next logical step would be to explore avenues where the approach of developing a shared infrastructure and services could be applied across borders. Just as with infrastructure and services, the approach of pooling resources can with equal success be applied to skills and knowledge. Digital challenges require not only hardware and software, but also new types of expertise, and cultural heritage institutions can hardly be expected to acquire all the necessary expertise on their own. Therefore, it is of utmost importance to build networks of expertise to share the knowledge and best practice, as well as to develop shared services built on expertise.

Recommendations for cultural heritage institutions

Even a small-scale collaboration can make a lot of difference.

The most potential for increased collaboration between cultural heritage institutions is in the areas of distribution of cultural heritage materials and research based on cultural heritage materials, as well as building and sharing skills, knowledge and expertise.

Many recommendations of the expert groups highlight the importance of change of mind-set in cultural heritage institutions, advocating for an open-minded approach and environment that is open to experimentation and innovation. On the one hand, it is perfectly reasonable for cultural heritage institutions to adopt a cautious approach, following proven methods that can be considered industry best practice thus more or less certain to stand the test of time. On the other hand, in the swiftly changing environment it is important to be aware of the latest developments and their potential impact on cultural heritage institutions. This applies in equal measure to all strands of work in digital cultural heritage. Institutions have to be aware of upcoming file formats and technologies, such as 3D, multimedia objects, AR and VR objects, and of best practice in preservation of those objects. They have to be able to use to their advantage the latest technologies in cultural heritage collections and applications and implement such diverse technologies as AI, AR and VR – the last decade has already displayed how important it is to follow the latest trends such as mobile phones

or audio-visual content. They have to be user-friendly and provide excellent design to be relevant. The same applies to research – it can be expected that, for example, AI will provide new exciting avenues for researchers, which cultural heritage institutions will be asked to provide.

In order for cultural heritage institutions to engage in innovation there have to be adequate financial tools available supporting small-scale cutting edge projects, which are not always guaranteed to succeed.

A very important area for collaboration on an institutional level is that of professional education. It is necessary for the existing staff of cultural heritage institutions to continuously improve their skills and expertise in areas related to digital tools, however, training opportunities are not always readily available on the local or even national level, therefore international training options often could be the most viable options, provided they are open for international trainees – such as international summer schools. Also secondment in another institution can be very effective for skill improvement, provided that hosting organization is willing to provide such opportunities and to invest their time and resources into it.

In area of tackling the legal issues, there is a lot of potential in collaboration between institutions, as showcased by case stories. It is advisable that institutions invest time and resources to explore small-scale tailored projects, supported in equal measure by legal and professional expertise, as broad international framework for cross-border accessibility of copyright protected works is lacking.

It might seem that there is no shortage of funding programmes for supporting small to medium scale collaboration projects between institutions – some of them are the PA Culture Flagships and seed money, the CBSS project support, INTERREG Baltic Sea Region Programme, Creative Europe, Nordic Culture Point, Nordic Culture Fund, and Baltic Culture Fund. However, none of those funding schemes is dealing strictly with digital innovation. Therefore, it could be suggested that policy makers in the Baltic Sea Region devise a support scheme specifically for digital innovation in the cultural heritage sector.

Recommendations for policy makers on national level

The national level is obviously the arena where there is the most potential for increased cooperation, and lot is already happening. All of the Baltic Sea Region countries have national policies for digital cultural heritage and shared services and networks for cultural heritage institutions. The depth and impact of those can vary, from full-scale centralised efforts in building shared digital infrastructure and services for the benefit of the entire cultural heritage sector, such as in Finland and Germany, to developing shared services in a specific areas or topics, such as in Norway or Sweden.

Additionally, a number of useful recommendations for national policy makers are proposed by the EU recommendations on digitisation of cultural heritage – as of now the European Commission is beginning the evaluation of the 2011 recommendations and considering drafting a new set of recommendations.

It is clear that for setting up any agenda on cultural heritage in the 21st century it is no more monument boards that are capable on addressing the before mentioned challenges but increasingly memory institutions which possess knowledge, skills, technological possibilities and human resources. Hence, it is important and imperative for the ministries and other governmental institutions to involve more and entrust memory institutions (libraries, archives, museums) with developing heritage related agenda, policies, white papers, etc.

Looking at the current best-practice in collaboration on the national level it can be concluded that the main ingredient for success is the development of a sound service and infrastructure architecture, based on the model of competence centres, which can be both service oriented (e.g., providing tangible service for the benefit of all sectors) or competence oriented (focused on creation and dissemination of standards and best-practice). The goal in either of the scenarios should be a continued effort to drive the innovation and adoption of best practice, while providing agreed services to all stakeholders, thus ensuring that digitisation processes on the national and institutional level are sustained beyond the project level.

To support national competence networks, policy makers should make sure that the nodes of the network agree on developing and using joint technical standards, guidelines and provide services according to agree upon service level. It is of critical importance that the said competence centres have enough capacity both in terms of resources and in terms of competence to succeed in their work. In practical terms, it means agreeing on mandates of the host institutions, either by expanding their current mandates or by developing new mandates in cases competence centres are created as independent units.

An area that should be addressed more vigorously in all the Baltic Sea countries seems to be cooperation between different sectors – mainly cultural heritage, research and education. It is an open secret that researchers and education can potentially be the main beneficiaries of digitisation process in the cultural sector, however, there is still not enough awareness in those sectors of what can the cultural sector provide, and in turn the cultural sector has limited awareness of the needs of researchers and educators, the services and products they require. This can and should be mended mainly on the national level before looking into cross-border cooperation in these areas, although best-practice in international cooperation could potentially raise the profile of such cooperation on national level.

The main conclusion here, however, is – the more established and accepted the practice of collaboration is on the national level, the easier it is to scale up the cooperation also across borders, based on existing national efforts.

Recommendation for regional policy makers

Cooperation in the area of digital cultural heritage in general is not exactly region specific; the issues concerning digitisation are universal for the cultural heritage sector worldwide. However, there are also factors, which make a closer cooperation on the regional level attractive, such as geographical proximity, making activities such as competence building more cost effective, similar cultures and existing best practices.

All the areas scrutinised in the previous chapters would certainly benefit from increased regional cooperation, and would require some intervention on behalf of policy makers. For example, if a shared regional infrastructure for digital preservation was planned, it would certainly need a strong support from the policy makers, as it would require some significant funding for setting up. In the area of cross-border accessibility of copyright protected cultural materials, a serious breakthrough cannot be achieved without the alignment of national legal frameworks, first, by following a similar approach in adopting the provisions of the DSM directive to achieve interoperability and compatibility of legal frameworks. To support a wider creation of digital collections of regional interest, a political agreement that there is a certain value for society in promoting a shared regional identity is necessary.

While the issue of establishing a permanent network for cultural heritage professionals dealing with digitisation aspects is open for a discussion and is reviewed in more detail in the next chapter of the report, it is clear that all the stakeholders would benefit from pooling resources for competence and capacity building of cultural heritage specialists, from very practical level – sharing of best-practice and upgrading skills – to a more general level – by raising the next level of cultural heritage pioneers pushing the envelope, let us call it “Leadership Academy”. Another option would be to set-up a joint regional research centre, pushing the envelope and raising the bar on behalf of the cultural sector.

VI

Setting up a Pan-Baltic
network for cultural
heritage professionals
dealing with digital
approaches in cultural
heritage

Setting up a Pan-Baltic network for cultural heritage professionals dealing with digital approaches in cultural heritage

One of the main aims of the project was to propose a scenario for creating a permanent Pan-Baltic network for cultural heritage professionals working in various institutions dealing with cultural heritage to address issues and opportunities created by the digital shift in cultural heritage and foster Pan-Baltic cooperation in digitisation, digital preservation and access to cultural heritage, and use of digital technologies in research and awareness raising. Although the creation of network itself falls outside the scope of this project, the project was expected to provide a sound base for the establishment of such a network after the completion of the project. Project partners believe that such a network interlinking institutions, experts and young professionals working in the field of cultural heritage and addressing perspectives of digital approaches in this field will contribute to the vision of the Baltic 2030 Action Plan, which aims to improve access to excellent educational opportunities and a high quality of life for people of every age and background.

First of all, it has to be noted that there are already a number of professional networks across the Baltic Sea Region for cultural heritage professionals, although none of them are dealing strictly with digitisation topics. Two of those networks are the Baltic Region Heritage Committee and the Association Bibliotheca Baltica.

The main actor in this area is the Baltic Region Heritage Committee (BRHC), which operates under the auspices of the CBSS. BRHC has been stimulating regional cooperation and promoting the potential of cultural heritage as a strategic resource for developing the Baltic Sea Region for the last 20 years; its activities focus both on intrinsic value of cultural heritage and on its sustainable management. In 2016 under the Swedish chair, a workshop was organized in order to explore the needs for further development of the BRHC. During the discussions, participants raised need for the involvement of more experts, need for more practical output, need for practical guidelines, more discussions on political strategies and managing the cultural sector and other important topics. The participants also welcomed the idea to establish more working groups and develop different ways of joint work in the future. These developments are encouraging to seek to establish new synergies, and explore the possibilities to link the need to create a new framework for collaboration in the field of digital approaches in cultural heritage and the wishes to broaden and deepen the scope of work of the BRHC. We believe that a scenario inviting the Baltic Regional Heritage committee to review and expand its scope of work and establish a new working group on digital culture could be a certain possibility.

Bibliotheca Baltica is an association for all libraries with collections and programs of relevance for the heritage of the Baltic Sea Region, with a mission to make the cultural heritage of the Baltic Sea Region more visible and relevant. It works in conjunction with partners outside the library sector – private as well as public organizations (universities, literary organizations, corporations, etc.) and advocates closer collaboration within in the Baltic Sea Region, and follows governmental recommendations on how to enhance such cooperation. As its goals are closely aligned with the aims of this project, it could be explored if a network for applying digital approaches in digital heritage could be established under the auspices of this organisation, broadening its scope of work beyond libraries.

Either of those networks could be potentially used to boost the cooperation in the field of digitisation across the Baltic Sea region. At the same time, it has to be recognised that neither of those is a perfect fit – the focus of the BRHC lies within the area of cultural heritage in its narrower meaning of built cultural heritage, and Bibliotheca Baltica is primarily a library organisation, which

means that none of them is ideally equipped to be the building block for a permanent expert network in the area of digital cultural heritage. If either of those networks considered expanding its role, it should first have to seriously review its mandate and consider the pros and cons of doing so.

It has to be mentioned that there already is a strong collaboration among professional associations in specific sectors of cultural heritage – libraries, archives, museums, audio-visual archives, and heritage organisations – dealing with advancement of their sectors in a broader scope than just digitisation. In most cases, however, cooperation mostly takes place separately between organisations of the Nordic countries and the organisation of the Baltic countries, with a notable exception of the Baltic Audiovisual Archival Council (BAAC), which unites organisations and experts of audio-visual field across the Baltic Sea countries.

Organisations and professionals of cultural heritage are also a part of bigger international networks, benefitting from exchange of knowledge and best practice which spans a wider geographical coverage – either European or worldwide. These networks have an obvious advantage over regional ones, as they are able to attract much wider pools of experience. Some of the examples include specific networks dealing with digitisation of cultural heritage or some of its aspects, such as Europeana Network Association (ENA), Digital Preservation Coalition (DPC), European Bureau of Library, Information and Documentation Associations (EBLIDA), as well as the big international sectoral organisations which are dealing with digitisation as a part of the activities, such as International Federation of Library Associations and Institutions (IFLA), International Council on Monuments and Sites (ICOMOS), International Council of Museums (ICOM), International Association of Sound and Audiovisual Archives (IASA) and International Council on Archives (ICA). It can be argued that active participation of cultural heritage professionals in any of those networks can be beneficial also for the whole sector of cultural heritage professionals across the Baltic Sea countries, as those specialists tend to be natural agents for expanding the knowledge pool.

This means that there are essentially two general options to increase the cooperation among cultural heritage experts in the area of digitisation – either strengthen the participation of cultural heritage professionals of the Baltic Sea Region in the existing networks, and encourage the transfer of knowledge they have gained through regional networks, or to purposefully build a new network of experts just for the Baltic Sea Region. In practice both approaches supplement each other, as it can be argued that without an access to the innovative international developments the expertise in digitisation across the Baltic Sea region would suffer.

Therefore, the approach suggested by the project team combines both of those approaches, with implication both to national and regional policy makers, as well as institutions themselves.

First, we suggest that both institutions and national policy makers should encourage participation of cultural heritage professionals and organisations in international networks with objective to gain access to cutting-edge knowledge and exchange of best practice in certain aspects of digitisation of cultural heritage, as well as to share the existing expertise with wider international audiences. This would broaden the expertise available in the Baltic Sea Region countries and create the prerequisites for distribution of knowledge across the region. This action does not require much in terms of expenditure and coordination as any given institution and country is in a position to recognise the expertise they already possess and are already engaged or exposed to the said networks. On the other hand, membership fees of the said networks and associated travel expenses do not require too much in terms of investment, therefore this action is very affordable and cost effective in terms of boosting the expertise in digitisation of cultural heritage in the region.

This includes also an increased support to regional specialist networks such as professional associations, encouraging more of regional collaboration between them, including hosting joint conferences, seminars and workshops, organising joint training programmes and professional

exchanges. As those organisations are closest to the grassroots level and therefore the best positioned to have an in-depth insight into everyday issues and challenges of cultural heritage professionals, they are also in best position to address them in a collaborative manner. As certain challenges associated with digitisation of cultural materials and their online exposure are often sector-specific, in many cases sectoral organisations are better equipped to deal with them than broader, sector-agnostic networks, which, on the other hand, are better equipped in dealing with high-level issues common for all kinds of cultural organisations.

As for distribution of digitisation-related knowledge and best practice, we suggest that non-formal or nominally formal networks (such as professional associations or NGOs) seem to be the best way to foster capacity building in the sector. Although it is imperative to provide some kind of coordination mechanism to steer and encourage the grassroots level networks, it seems that smaller, more specialised networks both in terms of their topic and in terms of regional coverage are in best position to effectively exchange and disseminate best practice.

Out of all subject areas reviewed in the project, the area that would benefit the most of a grassroots level networking seems to be the area of digital preservation. Currently there is very little cooperation and information and knowledge exchange across the Baltic Sea Region on this topic; therefore, it is imperative to foster the development of such network for professionals in this area.

In the areas of joint dissemination of cultural heritage materials and granting legal access to cultural heritage materials there seems to be slightly less imperative to establish formal or informal professional networks. The first area is much too diverse and dependent on sectoral and topical specifics and aims to have enough common ground for purposeful networking. In our opinion, this area would mostly benefit from a direct cooperation between cultural heritage institutions, shared platforms for disseminating the best practice, such as the Baltic Sea Region level conferences and seminars, shared digital platforms to discover cultural heritage materials collections, as well as shared training opportunities.

The area of legal issues, on the other hand, is too narrow and specific to benefit from a formal networking, therefore the best route to proceed in deepening collaboration in this area would be joint projects between cultural heritage institutions and other stakeholders, as well as increased coordination on a political level.

Another important area of coordination lies in the area of education. Most of the experts involved in the project recognize that it is of utmost importance to provide adequate prospects for competence building on the specific issues of digitisation of cultural heritage, both on the level of higher education and professional further education. Therefore, we suggest that further cooperation between higher education institutions providing education to future cultural heritage professionals in the Baltic Sea Region would be extremely beneficial, encouraging to take a joint approach to the development of curricula, exchange or both students and professors and joint development of online educational resources and courses.

As for professional further education of professionals already working in the field of cultural heritage it is imperative to provide more options for them to gain new insights and skills through international exchanges. There are some very good examples of this approach, for example, the Baltic Museology School, which every summer brings together museum specialists of the Baltic states for already 15 years, or the Baltic Summer School of Digital Humanities, which this year took place for the second time. However, we feel that there is an urgent need to have a wider topical and geographical coverage of further education programmes.

Although it is apparent that experts have a strong belief in cooperation on grassroots level, we still feel that it is necessary to establish some kind of mechanism to provide a better overview on

the current best practice as well as to provide some guidance for all the grassroots level activities, connecting them also to the political agenda. To bridge this gap, we explored an idea of re-using the existing high-level collaboration mechanisms across the Baltic Sea Region. After taking stock of the possible options, we concluded that the CBSS would ideally provide such an umbrella. In the framework of cooperation for strengthening the regional identity, the Baltic Sea states are already working together on cultural heritage issues, mainly through the Baltic Region Heritage Committee and the *Ars Baltica*. Therefore, we conclude that CBSS is well positioned to address the issues of cooperation also in the area of digital cultural heritage.

In practical terms, we see that there are two practical options – to establish a new vehicle for cooperation in this area, or repurpose one of the existing ones. The most appropriate scenario to consider, in our opinion, would be to review the mandate of the BRHC. As it already has three specific working groups for underwater cultural heritage, 20th century built heritage and coastal culture and maritime heritage, it would be only fitting to expand it with another working group on digital cultural heritage. The problem with this approach is that BRHC currently serves mainly as a cooperation vehicle for cultural heritage boards, involving museums to some degree, but other cultural heritage sectors such as libraries, archives and audio-visual archives fall outside the scope of work of the BRHC. If the current governance model of BRHC is left intact, there is an intrinsic risk that the work of the new working group will focus only on the issues specific to the cultural heritage sector. On the other hand, a change of mandate and governance model of BRHC to make it more inclusive to other cultural heritage sectors would mean changing the BRHC cooperation model, as we know it, essentially dismantling and rebuilding it from the core. Obviously, such a decision cannot be taken easily.

The alternative – to create a new cooperation body on digitisation of cultural heritage under the auspices of CBSS – therefore could be more appealing, however also should be considered very carefully. For example, one could ask if focusing on digitisation only – even though it is a very diverse area – justifies such a bold move.

Either way, we strongly believe that there is a need for collegial body on an intergovernmental level dealing with the current challenges of cultural heritage sector – digitisation being the chief of them – of the Baltic Sea Region. While on a practical level a lot can and should be done on a grassroots level, we firmly believe that there should be a political level guidance, recognising the fact that the Baltic Sea unites us not only on an environmental and economical level, but also in the cultural dimension; therefore we should bear a joint responsibility for fostering cooperation in this area. A cue in this regard could be taken from the European Union, where the European Commission has established an expert group on digitisation of cultural heritage, which helps the Commission to keep the tabs on the latest developments in the area in the EU Member States and to set political goals in this area. We strongly feel that the Baltic Sea states would benefit from establishing a similar format for cooperation.

Finally, on a very practical level it is of utmost importance to provide funding opportunities to foster innovative collaborative projects in cultural heritage, with a focus on the digital approach. We applaud the fact that Policy Area Culture of the EU Strategy for the Baltic Sea Region already recognises the importance of digital shift for the cultural sector and supports Flagship projects for cooperation in the area of culture. However, it will be a political discussion, which will shape the next EU Strategy for the Baltic Sea Region and its priorities. We urge the policy makers to maintain and increase the ambition level in the cultural policy area, and invite to consider recognising cooperation on digital cultural projects as a separate strand of this policy area, to help the cultural heritage institutions across the Baltic Sea area to better address the digital challenges they are facing, which, we believe, will only become more pressing in the coming years.