



Europeana Space – Spaces of possibility for the creative reuse of Europeana’s content

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This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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1 EXECUTIVE SUMMARY

This deliverable is a merger of deliverables D3.1 and D3.3 outlined in the DOW. A full explanation for this merger is given below in section 2.1 (pages 10-11). This combined deliverable begins with an introduction highlighting the place of IP within the workflow of the six E-Space project pilots from pilot planning, through to hackathon planning, and on into the incubation and business modelling phases. The introduction outlines the various types and sources of content partners are bringing into this project and how they will be used in the development of new tools and new content, some of which will be chosen for business modelling and commercialisation.

The key questions that underpin this combined deliverable and for which WP3, the Content Space, aim to provide answers are as follows:

- What is the current intellectual property framework or environment in which the E-Space pilots projects operate?
- What are E-Space stakeholder interests with regard to IPR and how are they to be balanced most fairly and effectively?
- What are the benefits and possibilities for open data?
- How can a protected space encourage stakeholders to move towards openness while maximising possibilities for innovation and the potential for business modelling that is mutually beneficial?
- How should IP be considered and what relevant materials would be helpful in developing the pilot projects?
- How should IP be considered and what relevant materials would be helpful in planning and running the hackathons?
- How do the technical and legal spaces fit together?

In response to these questions, this document explains the complexities of a contested space with regard to intellectual property rights attached to digital cultural content. It outlines general stakeholder interests (those within E-Space and beyond), and provides a forward looking view at the trajectory towards greater openness and some of the challenges this presents for content providers and policy makers. The document highlights the tools, licences and strategies available for opening up content for use, re-use and commercial exploitation, providing useful information, therefore, on how the challenges may be met.

The contribution by sub-contractors Open Knowledge¹ defines what it means to be 'open', explains the terms of open licences, and introduces the Open Content Exchange Platform that will be included in the project's Content Space alongside the legal and operational frameworks. The Open Content Exchange Platform will be a set of collated resources, including an overview of available openly licensed content and documentation, and materials on the reuse of open content, as well as blog posts and articles on open content. The Open Content Exchange Platform will be hosted on the E-Space server and displayed on the main website under the content space link.

This deliverable explains how a protected space can allow those wary of opening up high quality digital cultural content to see what benefits can ensue, from allowing high tech creative companies to re-use the data in innovative ways, without taking the risk of fully opening up their content to a wider audience or the general public. The pilots will showcase tools that re-use Europe's rich digital cultural content in ways which can be exploited commercially for the mutual benefit of both the creative industries and cultural sector. If business propositions are

¹ See the Open Knowledge Foundation website <https://okfn.org/>

strong enough, the more wary content providers are likely to be persuaded to enter into negotiations and open up their content beyond the legal, temporal and technical borders of the E-Space project's protected space. The E-Space protected space, though it does not eliminate risk, reduces the risk for institutions concerned about the consequences of giving away their IPR, enough for them to enter into this experiment with new technologies and business collaborations, and thus serves as a stepping stone towards opening up much more digital cultural content in the longer term. The protected space will, therefore, include content that is not 'open'² but which is re-usable. It may contain orphan and un-cleared content, and patented tools, but it is more likely that all content and tools will be either open, or under a licence that permits use to be made of the tools and content in the pilots and hackathons. It will be for the pilots and hackathons to determine what they will use in terms of open/licenced - or otherwise - content in the protected space.

In response to the questions listed above, and more specific questions that have arisen during the project so far regarding content and tools, the deliverable provides an IPR toolkit consisting of guidelines on the new rules concerning orphan works and public sector information, risk management guidelines and clauses, CC and open source software licence choosers, FAQs for the pilots and hackathons, a code of ethics for content sourcing via Europeana, case studies, IP definitions and internet resources. These tools are designed to facilitate both pilot planning and decision making, and the running of the hackathons. The differing nature of the E-Space pilots, in terms of the content they are using, the tools (and in some cases new content) they are producing, and their ultimate aims and objectives are reflected in the guidelines and other materials provided in this deliverable. For example, though business modelling is at the heart of the E-Space project, as part of a wider strategy for boosting the economy and creating new employment opportunities, some pilots have a more equal balance between commercialisation and other common objectives like education, such as the E-Space Open and Hybrid Publishing Pilot. Others, such as the TV Pilot, though their tools and content also have a high educational value, have a stronger commercial interest. The other major difference of course which has IP implications is that some pilots such as the Dance and Photography Pilots do not have anything like as much access to openly sourced content as others and so will have to enter into a much more extended copyright clearance and risk assessment process with regard to the use and re-use of their digital cultural content.

The differences between pilots are, therefore, reflected in this document in terms of the IP implications. A pilot such as the Publishing Pilot is focussing on using almost entirely openly sourced tools and content and will have to spend more time developing its thinking around business modelling strategies. IP may play an increasingly important part in this pilot when it comes to business modelling and issues that will arise regarding where IPR resides in user-generated and co-created content. In contrast, the Dance and Photography Pilots will spend more time on rights clearance and risk management in the short-term, aided by the toolkit included in this deliverable. They will then have to enter into negotiations with representatives from the creative industry and third party content providers when it comes to the incubation and commercialisation of tools developed during the course of the project that may continue to use their content beyond the duration of the project or hackathon, and thus beyond the safety of the protected space.

The contribution from WP2 explains how the technical and legal aspects of the project will fit together, particularly with regard to the protected space and the measures that will be put in place to limit access to the content provided by E-Space partners. The project's Content Space

² See the Open Knowledge definition of open in section 4.1.2, pages 28-29. According to this definition, only CCBY and CCBYSA are open. This definition is used for the purposes of clarity in this document. However, labelling the rest of the licences simply as proprietary would be misleading since there are gradations of openness.

will have different access rules for content according to usage scenarios and identified users. These will correspond with the specific licensing strategies for E-Space content implemented during the development phase i.e. in the protected space which may be defined by the duration of a pilot project and/or hackathon. The Technical Space will be able to implement access to content based on rights specifically stated for the purposes of re-use scenarios while clearly informing users of the associated licensing. Technical approaches will also monitor and control content use and re-use, with technologies such as digital fingerprinting for images and watermarking for video. New or modified original content may be produced through the usage of pilot applications, as is the case with metadata (new, modified or enriched) and user generated data, and end users may be able to introduce new content from available sources. Storage and availability needs will be considered for this content, together with potential licensing, monitoring and remediation approaches.

2 INTRODUCTION

2.1 MERGING D3.1 AND D3.3

In the DOW, WP3 requires the following two deliverables to be submitted in month 12.

D3.1 Europeana Space – first report on Content Space: this deliverable will give an initial description of the platform, composed of recommendations, guidelines and technical tools (developed in WP2) which will support seamless, effective and safe exchange of content between content holders and CI. A special chapter will cover open licensing and open content more generally [month 12]

D3.3 Report on legal aspects – first release: this deliverable will provide a first written report on the use and re-use of creative digital content: managing the legal aspects; a blueprint for conversion into online tools that will be integrated in the Content Space. This will include generic tools – including use case scenarios documenting the work done in WP3 in an appropriate form as an example for future content providers – and specific tools customised on the needs and requirements which have emerged during the pilots.

For the following reasons and with the agreement of the Project Officer, we have found that it would be preferable to merge the two documents (of circa 30 pages each) into one document (of 81 pages):

2.1.1 Protected space proposal

During discussion on the development of the pilots and running of the hackathons it became clear that there were a variety of IP strategies being pursued both in relation to the tools to be developed and the content to be used. While there was a preference for the use of open content and tools, it was clear that this was not going to be possible for all, or even a majority, of the pilots and hackathons. How then could E-Space encourage the greatest possible innovation? Open licensing is equally protective of copyright as all rights reserved licences. The protected space, rather than respecting copyright protection, is more of a risk mitigation mechanism (infringement may still take place, but is less visible and more controlled).

The suggestion of the protected space was offered: a technical and legal space in which the pilots and the hackathons could innovate with tools and content. There would be a preference for the use of open tools and content in this space, but where this was not possible, bespoke licences would be negotiated for these purposes only. No content or tools could move out of the protected space until agreement on the IP had been reached. It is, in other words, a space where it is intended that innovation should be demand led rather than content driven.

Because of this innovation around the protected space, it became clear that splitting the deliverables into two - D3.1 and D3.3 – was unworkable: two separate deliverables in the way proposed did not reflect the workflow that was developed and being pursued by the pilots, supported and underpinned by the IP strategies, recommending 'open' where possible, but recognising that as the pilots move towards developing business models for the tools, so other strategies would develop such as proprietary IP strategies; consultancies; bespoke services among others.

Merging the two into one, ultimately longer, deliverable also has the advantage of avoiding overlap. Because of the focus on open, we found that some ideas were being repeated in different parts. It also has the benefit of streamlining the process, starting from a description of the contested space in which the projects work; moving along strategies to pursue 'open'; through developing tools and FAQs for the pilots and hackathons on how best to manage IP

and respond to recent developments; and detailing the recommendations and guidelines on the technical tools that will underpin the protected space enabling the innovation to happen.

In its first release in month 12 of the project (January 2015), this deliverable will be specifically directed to the partners contributing to the E-Space pilots. In its second version to be released in month 24 (January 2016), the scope of the toolkit will be broadened so as to target stakeholders outside the project consortium as well. The toolkit will help to facilitate ease of provision, use and re-use of Europeana content. It will be accessible via the E-Space website, and found in what will be known as the Content Space. WP3 is developing the Content Space as a platform of guidelines and tools for facilitating the following:

- Improving content rights labelling, including the use of new technologies for embedding of IPR information within content and keeping content secure, in liaison with the Europeana Licensing Framework
- Developing sustainable models of rights clearance for re-use
- Developing appropriate strategies for risk management
- Navigating existing licensing options
- Providing examples of bespoke licences to underpin business models
- Standardising best IPR practice in the context of co-creative processes such as hackathons and when dealing with sensitive heritage

The most significant method of deliverable creation used here was desk research, combined with feedback collection from the E-Space partners, and pilot leaders in particular.

2.2 IPR TOOLKIT AND FUTURE DEVELOPMENTS

The IPR toolkit remains a work in progress as the pilots evolve over the course of the project and further IPR issues come to light.

A question for E-Space partners regarding our continuing methodology will be whether more high tech tools are desirable, in which case we would need to determine whether the E-Space budget could accommodate an IT subcontractor. The IT specialist would use the materials and documents drawn up by WP3 partners to present the information in more engaging audio-visual ways.

There is already a great deal of material online concerning IPR and we have been very careful to avoid re-inventing the wheel. Instead we aim to bring valuable sources together and contextualise them in the framework of the E-Space project; its goals, and the aims of its individual partners.

This deliverable provides an information resource to be embedded into the Content Space online. This allows for continued and flexible work on the toolkit (having in mind the second version of the deliverable) in order to keep the information sources updated.

The IPR Toolkit is a collection of factsheets, diagrams, links and 'how to' guides for use by anyone interested in making available digital cultural heritage material for re-use. The protected Content Space will be populated with the metadata and digital objects provided by E-Space partners and will be built on the infrastructure of the Technical Space. It will support the overall aim of the project; to make the availability, use and re-use of content by creative enterprises as open as possible, while providing the legal framework necessary to protect the rights of holders of digital content.

The tools will help the partners to clear their content or release them under the most appropriate licence. They will be developed in order to be usable by those without any legal

background and will be trialled with the E-Space scenarios before being further tested and then refined, disseminated and made available under open source and open access licences. Where possible, the tools will also be promoted through the Europeana Labs site.

2.3 E-SPACE WORKFLOW AND THE PLACE OF IP

2.3.1 *The E-Space Workflow*

There are a number of steps in the E-Space workflow, from inception of the idea for a pilot project, through the hackathon, to incubation for the projects that have demonstrated a potentially successful business model. The diagram on the next page explains the pilot ideas and how they feed into the planned hackathon events.

The TV pilot uses archive video material from sources such as Europeana to develop an HbbTV application based on the Berlin Wall and a Multi-Screen Toolkit for immersive user experiences in the living or classroom.

- The TV Pilot will make the open source platform for multiscreen applications available at the May 2015 hackathon. The broadcast scenario (RBB) and the local community scenario led by NISV will be presented as inspirational best practices. The aim is for participants to develop prototypes of SmartTV applications which create new TV experiences .

The Photography Pilot will experiment with the use of historical images , either open or proprietary (copyright cleared). Existing technology (the Eureka Blinkster app) will be applied to create easy-to-use repositories for pilot users to create new products, such as storyboards and augmented reality.

- The Photography Pilot** will organize an EU wide hackathon event in February 2016, inviting the best cultural applications using Europeana photography to share coding experience (APIs), and business opportunities. Pilot outcomes will be used as inspiration as far as reuse licences/open source solutions allow. The Omeka developments will be freely shared for reuse and participants will have access to the JPSearch API.

The Dance Pilot will create a general framework and taxonomy for working with dance content and metadata accessible through Europeana. Tools for granular content annotation, based on the ON:meediaa platform, the Creation-tool and Knowledge-Base platform will be adapted for the pilot and customised for both professionals and the general public.

- The Dance Pilot** tool deals with capturing movement. However, the dance community itself tends not to release this content as open content, so the pilot focus will shift to other movement oriented organizations and gamification options. The hackathon may focus on reusing existing dance content to gamify rehabilitation by using the annotation tool.

The Games Pilot will create a casual game for children using archived imagery and existing gameplay models, a creative game for social network users (players manipulate imagery, and share and rate their creations through Facebook and Twitter), and an educational game providing specific information, tests and quizzes. Each will be a mobile web app for multiple platforms, extensions of Unity3D, an open source gaming tool, and released to the developer community.

- The Games Pilot** will bring people with ideas, content providers and developers together to create marketable ideas/products from tools developed by the pilot. It will provide a more specific theme, technical toolkit and target audience for the event in due course.

The Open and Hybrid Publishing Pilot will produce an open book on the dynamic relationship between photography and other media using open content or clearing copyright if material is not available under a CC-BY licence. A web version will be built using WordPress with an exhibition space, and made available on other platforms as a responsive template or app. A guidebook will address technical and legal issues.

- The Publishing Pilot** plan a 1-3 day Hack the Book: An Open and Hybrid Publishing Festival in January 2016 which challenges users to create their own book from scratch. It will help participants such as content creators, educators, curators and innovative publishers to understand the technical and legal limitations, and how to use data sources. It will include an editing sprint and will explore ideas for business modelling.

The Museum Pilot Toolbox will be offered to museums and memorials for using open or rights cleared content to create educational videos, promotional worksheets and virtual exhibitions. Video examples and guides will showcase the use of Europeana in the process. Blinkster will be customised to give access to content providers' heritage material linked to more information from Europeana.

- The Museums Pilot** does not produce technical open source technology so the event will showcase the Toolbox and collect feedback to enhance the proposition. Businesses will learn how to use cultural content to showcase their work (using Blinkster) and learn about the needs of the cultural sector. Museums and archives will view the latest technology that integrates Europeana content. Blinkster will showcase this integration and the creation of virtual exhibitions alongside other applications like F.i. 7scenes, Muze and Nostalgeo. Hackathon planning may be in collaboration with the photography pilot.

2.3.2 The place of IP within the E-Space workflow

1. Pilots develop ideas for projects using a mixture of open and proprietary tools and content. The Protected Space

The tools used by the pilots represent a mix of proprietary tools protected by copyright, and open source tools that may be freely used and built upon by third parties.

Examples of Proprietary tools used in E-Space by the pilots include:

1. The tool for granular content annotation (Dance Pilot)
2. The Eureva Blinkster App (Photography, Museums)
3. Unity 3D game engine (Games)

Examples of Open source tools used in E-Space by the pilots include:

1. Web-based Toolbox (e.g. Museums Pilot)
2. The platform for multiscreen applications, developed by Noterik. (TV)
3. Omeka and JPSearch API (Photography)
4. Technical Toolkit (Games)
5. WordPress (Publishing)

During the course of developing the tools, the pilots will create IP. For example, IP will be created as layers, enhancements and customisations are added to the existing tools listed above during the pilot projects.

Pilots will also use content, some of which will be 'open' and others of which will be proprietary. Some content may be licensed for the purposes of the pilot (and hackathon) only.

Examples of open content to be used by the pilots in E-Space includes:

1. Content from Europeana (All pilots)
2. Material from the public domain or under an open licensing regime, such as Wikipedia (e.g. Games and Publishing)
3. Content with various open source software licences (e.g. TV)

Examples of proprietary content to be used in E-Space pilots includes:

1. Content from third parties contributing to pilot content (e.g. Photography, Museums and Dance)
2. Content under various commercial licences (e.g. TV)
3. Content under creative commons licences not considered open (e.g. Games)

As with the tools, during the course of developing ideas, the pilot will create IP in the content adding layers of copyright to existing works and/or creating new derivative works. Each pilot will need a clear idea of:

- a. IP in existing tools: ownership, and use rights
- b. IP generated by pilot participants: ownership and use rights. Note that the DOW states that this IP should be licensed under an open licence.

2. Hackathons are two or three day events combining talks and co-creative events. The tools and content developed by the pilots are available during these events. Attendees can bring their own tools and content and/or use/mix tools and content provided by pilots.

Tools may be open source, or layers of existing IP may subsist in the tools contributed by the pilots. IP will be created when hackathon attendees mix, adapt, enhance and otherwise re-use

the tools supplied by the pilots to the hackathon events. IP will also be generated as tools enter the incubation and business modelling stage and are prepared for commercial use.

Content IP may be 'open' or proprietary. New IP may be created in the content during the course of the hackathon to the extent that the content is re-worked. This may be the content contributed by the pilots and/or the content brought by the participants. Each hackathon will need to have a clear idea of how the 'new' IP generated during the event is to be owned and managed.

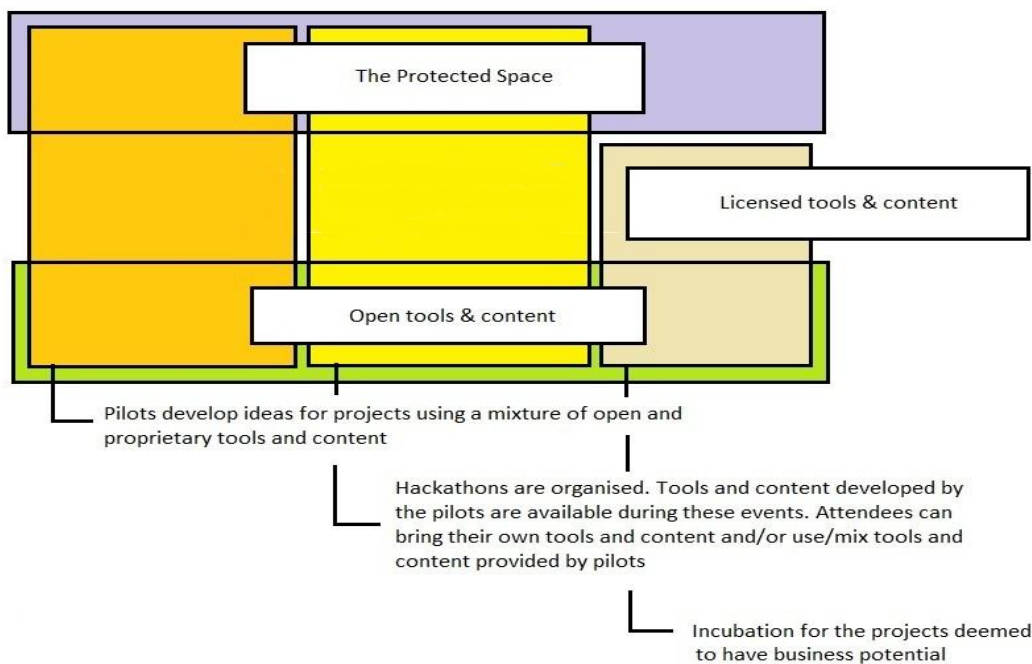
3. Incubation for the projects deemed to have business potential. Beyond the Protected Space

Prior to leaving the protected space and pitching for a place at the business modelling workshops which may lead to incubation, agreement needs to be reached on IP in the tools (and content if to be part of the business model). This agreement needs to take into account the IP identified at stages 1 and 2 discussed above.

The criteria for choosing the projects to go forward to the incubation stage are:

1. Proper use and/or re-use of digitized cultural heritage content, or tools facilitating the use or re-use of this content
2. Innovation, by which is meant the provision of better, more efficient technology, business models and new ideas
3. The capability to engage real communities where there is demand that will be met by the winning tool
4. A representative candidate with the passion, capability and dedication to sell the project.
5. The project must be technically feasible with a realistic budget, time frame and the necessary expertise

The IP strategy will underpin points 1 and 2 in particular. This diagram illustrates the various steps outlined above:



2.4 ROLE OF THIS DELIVERABLE IN THE PROJECT

This deliverable represents the progress made by WP3 with regard to meeting the challenges posed by questions of intellectual property that have arisen during the course of the project thus far, especially with regard to the six pilot projects. The work represented here has contributed to the overall progress of the project by providing an intellectual property framework that has supported and will continue to support the development of the pilot projects and inform the decisions made by the pilots as to the content they will use and the ways in which it will be exploited, for example, during the hackathons.

In addition to the core work of UNEXE and PACKED in developing the intellectual property framework and toolkit, this deliverable includes inputs from WP2 on the technical space, and Open Knowledge on the open content exchange platform.

The work herein supports, in particular WP4, the development of the pilots in the six thematic areas, and WP5, the planning of their respective hackathons. WP3 will continue to provide this support to the pilots but will also increasingly support the work of WP5 as we go on to address IP issues arising at the incubation and business modelling stage of the project. We will also work closely with WP2 in order that the developing infrastructure and tools for content access, use and storage adequately reflects the relevant IPR considerations. The development of the technical space will also have an impact on the materials and advice that will be contained within the second iteration of this deliverable.

2.5 APPROACH

Work began on the IPR Toolkit with a Skype conference call on 2nd July between UNEXE, PACKED and Open Knowledge in which discussions took place regarding the work to be carried out respectively towards the completion of WP3 tasks. Another virtual meeting was held on 6th August to make more detailed plans and preliminary deadlines for draft tools, in order to be sure to meet the final deadlines for deliverables. All partners involved contributed to and edited a Google Doc. A discussion was had about which tools might be useful for the pilots, having considered the written responses to the IPR questionnaires returned by the pilots, additional information gained from subsequent Skype meetings with each of the pilot co-ordinators, and continuing discussions with pilot leaders via email.

A conference call was held again on 4th September to finalise deadlines for deliverables and the list of tools for the IPR toolkit. Following this, an initial draft outline of the toolkit was circulated to all partners on 10th September for comment and feedback by the end of that month. Further electronic discussions ensued with pilot co-ordinators as a result of incoming feedback and the toolkit was appropriately modified and augmented. Finally, a skype meeting was held on 15th January 2015 to agree the final structure and content of the combined D3.1 and D3.3 deliverable.

2.6 STRUCTURE OF THE DOCUMENT

The purpose of this deliverable is to provide information and tools for the E-Space pilots and hackathon organisers and participants to enable them to think about and develop the IP framework that will support both the tools and the content that are developed during the course of the project. To that end, the third section in this deliverable describes the IP legal framework within which E-Space partners work and provides a number of fact sheets dealing with newer areas of law that may impact upon their work. The fourth section focuses on the power of open licensing; while it is recognised that not all content or tools will be openly licensed (hence the need for the protected space), there is increasing evidence that open licensing can lead to innovations in the commercial sector. The fifth section describes the

Protected Space within which pilots and hackathons will carry out their innovation, explaining what it is and why it is necessary. The sixth section discusses the technical space and how the pilots and the hackathons may carry out their work within this space, and the seventh section highlights some of the FAQs that might arise for hackathons, and we have case studies in the eighth section. We have also included an appendix with useful information including legal definitions and sources of information from the web.

3 UNDERSTANDING THE IP FRAMEWORK

3.1 THE LEGAL FRAMEWORK

How do you make money out of the re-use of digital cultural heritage? This is a key question for E-Space, looking at pilot projects encompassing Europeana TV, photography; dance; games; open and hybrid publishing and museums. As noted above, E-Space follows these pilots from point of conception, through development in hackathons, and into incubation for the selected projects which show the most promise to be able to thrive in the cultural marketplace, ultimately contributing to the economy and to jobs.

A number of key foundational blocks need to be in place if these pilot projects and the ideas coming from the hackathons are to be a success: a market analysis is required, and a business case has to be made out. There has been considerable work done already, for example, on market analysis, with UNIVE producing over 100 pages for D5.1 which they are working to repackage in six thematic user friendly documents. The purpose of this paper is to consider the place of intellectual property (IP) within this framework: how can IP – specifically copyright – support the pilot projects and hackathons as they move from idea to reality? The pilot projects and hackathons will develop tools and use and re-use digital content: both the tools and the content will be protected by copyright³. One of the ways in which the successful outputs could be monetised is through the exploitation of the **exclusive rights granted by copyright**; these include the right of reproduction; adaptation; and communication to the public (over the internet) among others; in other words, business modelling could rely on a ‘closed’ strategy, licensing or assigning these exclusive rights in return for royalties or an outright payment. It is the adaptation mostly referred to as re-use, which is not collectively managed. However, for certain types of content (e.g. audio-visual), even for the two other types of rights (reproduction and communicated to the public) there is no full collective management and representation.

Another way would be to consider an **‘open’ strategy to exploitation**, where the tools are made **‘openly’** available and the business modelling strategy is developed in other ways – such as software given away for free and a return made on updates and servicing. Within the E-Space project, both paths will be explored simultaneously.

In tandem with thinking about exploitation strategies around copyright, copyright also needs to be considered at the ‘input’ stage. Pre-existing tools and content are used by the pilots and will be re-used in the hackathons. It will be essential to know who owns the copyright in these and how they are licensed in order to ensure that the eventual output of such an event does not infringe the rights of others rendering it incapable of being lawfully exploited in the marketplace.

This paper will consider the ‘copyright space’ within E-Space. It will highlight the, often conflicting, demands of the stakeholders - the authors, the owners, the users and the policy-makers – which are made at International, European and domestic levels of policy and law making. It is not intended to be comprehensive in the discussion. There are a great many other sources of information, both academic and practical, that examine in detail the historical and contemporary state of copyright and challenges that are faced in the digital era. The purpose of this contribution is to highlight some of the contemporary challenges as they impact on the work in E-Space and to illustrate how challenging the current state of copyright can be for innovation in the cultural heritage sector. It will go on to suggest that, while copyright should

³Not all content used in the wider E-Space project is necessarily copyright protected. The use of Public Domain material or open content will be encouraged wherever possible.

always be respected, what may help is for innovation within the pilots and the hackathons to take place in a **protected space**. In other words a space where innovation takes place using openly licensed tools and content, and tools and content specifically licensed for use in the protected space but not out of it and where innovation is demand led rather than supply fed.

This contribution contains tools that the pilots and hackathons may find helpful in developing their strategies.

3.1.1 The Contested Space

Copyright is characterised by three interests: those of the author of the work; the owner of the copyright in the work; and the user of the work (sometimes also thought of as the public interest – although the two are not wholly contemporaneous). The interests of these groupings sometimes converge and often diverge. Generally it is the task of the policy maker to balance these interests whilst at the same time pursuing wider political agendas.

Little more than a decade ago copyright was a relatively unknown branch of the law. It was certainly important to those industries that depended on the law to provide exclusive rights in creative works that could be traded: publishing, music and the arts are good examples. It was with the advent of digitisation and the implications that had for the speed and ease with which cultural works could be copied and disseminated around the world with few or no barriers, that copyright became a household name. It was perhaps the music industry more than any other that brought copyright to the attention of the masses as it sought to grapple with the challenges of digital reproduction and internet dissemination of musical works. There were big gains and big losses to be made and vocal lobby groups emerged representing mostly interests of the copyright owners and also piggybacking on authors' interests. Less loud were the lobby groups for the user or public interest. Matters of control over dissemination of works on the internet became paramount although how that was to be effected entirely unclear. Law ascribing liability to various actors – ISPs, individuals - and notice and take down requirements, suing in the courts and technical measures all were and are used by copyright owners as part of the effort to stem the tide. More recently it has been the re-use of content by creative industries that has climbed the policy agenda. Since the financial crash of 2008 and in the wake of sluggish economies, the time of the creative industries has arrived. The creative industries are considered by policy makers to be one of the ways in which economies can be revived. Policy makers, therefore, encourage the use of innovative technologies and existing cultural heritage content, and pursue increasingly ambitious strategies. However, in this melee conflicting demands are being placed on copyright that can make creative innovation problematic.

It is in this contested space that E-Space works. And it is for this contested space that we have sought to develop tools around copyright and licensing that will support the pilots and the hackathons in their work, from ideas to business modelling. This information is presented in the deliverable.

One of the recommendations, specifically to try and address the challenges faced by the pilots and hackathons in this contested space, is, where open licensing is not possible, to develop licensing strategies that enable innovation to take place in a way as unencumbered by copyright restrictions as possible. We are not advocating that copyright should not be respected; we are advocating strategies that will help to support the work of the projects and hackathons whilst looking for innovative ways to build tools and to use and re-use content.

To this end we would suggest that pilots and hackathons use a mix of content that is licensed in **the least restrictive manner possible**: open licences including CC-BY (and other CC licences although not all are considered 'open' – see below); and public domain licences/marks. In

addition we would urge pilots to use content specifically sourced for their use and for use in the hackathons. Here there may well be content owners who are willing to allow use of their materials for specified purposes. If these are ultimately monetisable, before any tools or content are allowed to leave that protected space and move into incubation, all the parties who have a copyright interest in those tools and that content, both in original third party material and in the content as it has developed, have to agree on exploitation methods. Our suggestion is that if agreement cannot be reached, then the proposal by the innovator wishing to enter incubation is not viable in the market place. If, on the other hand, all can see the advantages, then agreement will be reached and the exploitation strategy developed. This may be by way of open or closed licensing strategies.

Pursuing these strategies may well open up new sources of tools and content for the pilots and hackathons and may let owners of IP in tools and content experiment with ideas they might not otherwise have been willing to pursue. It may help them to develop innovative, creative, imaginative and inspired uses of our cultural heritage that may not have been possible, but the possibilities of which become apparent in the protected space.

3.1.2 The author

The author is central to the copyright system. From international, through regional to domestic levels, the copyright system is built around the author. The oldest copyright Convention, the Berne Convention for the Protection of Literary and Artistic Works 1886⁴ refers to authors rights and to the protection of the rights of authors in their literary and artistic works. That the author is pivotal to the copyright framework is most obvious from the term of protection that is linked to the life of the author. The Berne Convention provides that copyright lasts for 50 years after the death of the author. Subsequent moves to increase the term of protection have always based themselves on the life of the author for justification however strained; her heirs live for longer, therefore the term should be increased.

The author has a diverse range of interests in the copyright framework. She would like to secure long and broad rights for her works that she can exploit in the marketplace. These rights give her the incentive that she needs to keep creating more works: as she can control her works, so she can licence or assign them securing payment in return. She is not too interested in the exceptions and limitations to copyright which allow third parties to re-use content without payment or permissions except perhaps to be quoted – within limits. The author does of course become a re-user herself when creating afresh – at which point she may become more interested in the limits to copyright. She is in many sectors represented by collecting societies that also act as vocal lobby groups. The Authors Licensing and Collecting Society⁵ for instance is a strong lobby group on behalf of authors in the UK, and there is CFC Centre Français d'exploitation du droit de Copie⁶ in France and SIAE⁷ in Italy.

3.1.3 The owner

The rights of the author often end up in the hands of a third party who then goes on to exploit those rights. In some jurisdictions copyright automatically vests in the hands of a third party. The best-known examples arise from the common law countries that root their justifications for the copyright regime in economic rationale. The UK for instance provides that where an employee creates a work in the course of employment, then the copyright vests in the employer. Such automatic vesting is not possible in other countries – such as France. Here the

⁴ See http://www.wipo.int/treaties/en/text.jsp?file_id=283698

⁵ See <http://www.alcs.co.uk/Home>

⁶ See <http://www.cfcopies.com/>

⁷ See <http://www.siae.it/Index.asp>

copyright always vests in the author even where an employee acting in the course of employment, but the author may then licence or assign this to the employer – or other third party. An exception exists for software and journalist’s copyright where the copyright automatically vests.

If the economic view of copyright is to be believed, then the rights associated with copyright will generally end up in the hands of those most able to exploit them. These rights owners, in common with the authors, tend to want broader, stronger, longer rights but, unlike authors, tend to be more concerned with the exceptions and limitations. Witness for instance the response to the WIPO treaty to facilitate access to published works for persons who are blind, visually impaired or otherwise print disabled 2013 (the Marrakesh Treaty)⁸ the most recent treaty to be agreed at international level. This treaty was concerned with mandating the introduction of specific exceptions and limitations in domestic law for those States adhering to the Treaty for the benefit of users with print disabilities. Those vehemently opposed were the publishers; those wholly in favour were the users. Authors were on both sides of the divide.

Rights owners engage in active and vocal lobbying in pursuit of their interests even more so than authors. The Marrakesh Treaty mentioned above witnessed fierce lobbying on behalf of publishers much of which has been captured by Knowledge Ecology International⁹.

3.1.4 The user-creator¹⁰

In this contested space – and certainly for E-Space – the users are generally thought of as the individual and the small collective. With the advent of digitisation, the user has moved increasingly to re-using content and in so doing developing what is colloquially known as user generated content. The user is also the creative industry, upon whose back, and as noted above, governments see a hope of economic revival. In this space, users want more freedom to innovate – translating into more limitations and exceptions to copyright, reduced terms of protection, and more open strategies in exploitation of protected content, certainly for content that they re-use in creating afresh, but often also in relation to their strategies in respect of the tools and content that they produce.

What this group lacks are effective lobby groups – or at least lobby groups whose voice is heard as clearly and articulately as those representing the owner and the author. To the extent that the interests of this group coincide with open exploitation strategies, so their interests are championed by organisations such as Open Knowledge and Communia¹¹ but these are far less cohesive, far less powerful, and far less well funded than those groups representing authors and in particular owners.

The types of initiatives designed to help this stakeholder would include Licences for Europe (although primarily an owner driven initiative) and the orphan works directive.¹²

3.1.5 The policy makers

It is in this contested space that the policy maker has its job of balancing competing demands whilst at the same time pursuing its own policy and strategic goals. This is challenging because policy at present tends to pull in competing directions. As noted above, at European and domestic levels the creative industries are seen as a means for economic generation. All manner of initiatives have been developed to try and encourage creativity, and much public

⁸ See <http://www.wipo.int/treaties/en/ip/marrakesh/>

⁹ See <http://keionline.org/node/1767>

¹⁰ There is arguable no such a thing as a passive user in the context of digital cultural content anymore, and specifically within E-Space the users are also creators (reusers).

¹¹ See <http://www.communia-project.eu/>

¹² See <http://www.wipo.int/wipolex/en/details.jsp?id=13043>

money is spent pursuing this strategy. E Space is a good example: how can the cultural heritage accessible through Europeana and from other sources be put to good use in order to create jobs and stimulate economic growth? In this there are tensions – as noted above: broader stronger and longer rights are wanted in the content for the creative industries in order to encourage participation (the interests of the rights owners); but at the same time, more exceptions and limitations are wanted to ensure that existing sources of content can be re-used (the interests of the users).

Whilst attempting to balance these interests policy makers also pursue other conflicting goals. While on the one hand innovation and re-use of materials by creative industries is encouraged, the policy makers require the suppliers of the content, the memory institutions, to be at least partially self-funding. One of the ways in which they do this is by licensing digitised content. Not only does this raise the question of whether copyright arises in the act of digitisation, a matter far from free from controversy, but it also causes a tension in the licensing strategy pursued: should this be open to encourage downstream innovation and the goal of content re-use by the creative industries? Or should it be closed to enable the memory institutions to license the content and in so doing add to their coffers? These tensions are particularly acute when the memory institution and the digitisation process are supported by public funds. Policy makers are constantly lobbied by the vocal and well-resourced lobby groups as noted above.

3.1.6 Other challenges

Not all of the challenges in this contested space arise from copyright. In a Progress Report on the implementation of Commission Recommendation on the Digitisation and Online Accessibility of Cultural Material,¹³ other pressing matters were highlighted as causing blocks to the accessibility and re-use of our cultural heritage. These included:

- Funding – or rather the lack of it – for digitisation projects;¹⁴
- The lack of open platforms with quality, interoperability and resolution features;
- The watermarking of public domain materials and conditions placed on re-use.¹⁵

It was suggested that the Orphan Works Directive may help although anecdotal evidence points to the fact that many working with our cultural heritage doubt its practical utility due to the lack of databases and registries of works and authors (see section 4.2.3 and section 7.2).

As said, it is within this contested IP space that the work of E-Space is carried out: a space in which there are many conflicting demands and competing interests. The purpose of this deliverable is to give participants at least some knowledge around IP to help them to support their innovative projects

¹³ See <file:///C:/Users/aes231/Downloads/Recommendation-2011-2013-progress-report.pdf>

¹⁴ High interest digitisation projects (e.g. English speaking-audio-visual) have a rights clearance issue whereas most of other projects (with low commercial value) have funding problems.

¹⁵ The conditions have mostly to do with legal interoperability, whereas Public Domain watermarking has to do with the re-introduction of rights.

In the table below, we present the different stakeholder interests regarding the IPR Attached to Digital Cultural Content in E-Space.

Stakeholder Groupings	Stakeholders in E-Space	Support for Open Data	Support for Closed Data	Lobby Groups	Overall Interest
Authors	Pilots Hackathon attendees Third party artists and performers	<ul style="list-style-type: none"> •Not too concerned about third party exceptions e.g. free re-use of brail editions for the blind •Need re-usable content for further creativity 	<ul style="list-style-type: none"> •Seek long and broad IPR to market creations, fund further creativity, and benefit heirs 	e.g. Authors Licensing and Collecting Society (UK), CFC Centre Français d'exploitation du droit de Copie (France) and SIAE (Italy)	Variable, especially when broader moral arguments are factored into author attitudes to openness, though in general authors look for protections in the short-term and openness in the longer-term.
Owners (content providers)	Museums Libraries Galleries Archives	<ul style="list-style-type: none"> •Seek broad exposure of content to attract interest and visitors to exhibition spaces •Seek innovative ways of displaying content that often requires collaboration with tech firms •Seek to open up content in line with agendas set by policy-makers in the hope 	<ul style="list-style-type: none"> • Seek long and broad IPR to market content especially given public funding cuts 		Generally gain far more from opening up content with the exception of those that depend on considerable revenue from marketing rights restricted content

		of receiving more public funding			
Users	Hackathon attendees; Higher education researchers and students; the general public; Creative industries and entrepreneurs	<ul style="list-style-type: none"> • Desire freedom to create, re-create and co-create new content • Desire freedom to exploit content in the marketplace using new tools 	<ul style="list-style-type: none"> • Users who are also authors may have interests in IPR as stated above 	Open data organisations such as Open Knowledge	<p>By far the majority of users have the greater interest in opening up data as much as possible.</p> <p>Users are currently less well represented at the level of policy-making.</p>
Policy Makers (and organisations with technical/legal/business expertise used for facilitating policy in E-Space)	The European Commission National Ministries of Culture	<ul style="list-style-type: none"> • European and domestic agendas aim to open content up for exploitation by the creative industries to boost economies and create employment opportunities. 	<ul style="list-style-type: none"> • Broader, longer IPR is needed in content to encourage participation of content owners in collaborations with the creative industries • Policy makers require content providers, to be partly self-funding and one way they do this is by licensing digitised content 		<p>Agendas at national and international level are largely to open up cultural content as much as possible but this agenda often conflicts with the effects produced when policy makers cut public funding to the culture sector</p>

Table 1: Stakeholder Interests Regarding the IPR Attached to Digital Cultural Content in E-Space

4 THE POWER OF OPEN

4.1 OPEN CONTENT, TOOLS, LICENSING AND BUSINESS MODELS

Given the challenges in the contested IP space, the value of open is a key concept within the E-Space Project, through both open content and open source tools.

Without the availability of open resources the creative industries would be unable to build upon the impressive digital content available in Europeana (millions of items from a range of Europe's leading galleries, libraries, archives and museums, including books and manuscripts, photos and paintings, television and film, sculpture and crafts, diaries and maps, sheet music and recordings). Within the E-Space project prototype services and applications will be developed to optimise reuse of content and to showcase it. Showcasing this content will support the project's aim of increasing and enhancing the creative industries' use of Europeana.

These services and applications may consist of creative multi-platform resources, storytelling apps that allow users to create their own digital story, augmented reality apps that allow historical images to be layered with real images, interactive games, and so on. Each tool will have a business model in mind: many will be available for purchase or to licence; others will have an open strategy and will be considering an open source and openly licensed path: enabling the product's design to be openly available for universal redistribution allowing subsequent improvements by anyone.

Those using an open strategy will be interested in open business models such as:

- Dual licensing
- Selling support services (support, training, installation, integration, customisation)
- Consultation and stewardship
- Future funding

Ideas related to open business models are provided on the Open Data Institute Website¹⁶ and in the 'Service Innovation Platform: Open business models and intellectual property' report available from the Big Innovation Centre website¹⁷ which concludes that: *"Both creative services and ICT firms report that soft IP are strongly used as a strategy for innovation, especially in relation to innovation methodologies, access to information and standards setting"*. The recent EU Project Apps4Europe conducted research into open data business models¹⁸ highlighting previous approaches and signposting new ways of thinking.

One area they look at is for-profit taxonomies which they see as falling in to 5 main categories:

¹⁶ See *How to make a business case for open data*,

<http://theodi.org/guides/how-make-business-case-open-data>

¹⁷ See *Service Innovation Platform: Open business models and intellectual property*,

<http://www.biginnovationcentre.com/Publications/13/Service-Innovation-Platform-Open-business-models-and-intellectual-property>

¹⁸ See *Business models for open data applications*,

<http://www.appsforeurope.eu/article/business-models-open-data-applications>

1. Gaining monetary value: The main objective of these businesses is to capture monetary value through satisfying real existing needs. Hence, R&D has significant share in application development cycle.
2. Capturing reputation: Applications that are classified in this taxonomy, are re-announcing a way to generate revenue. Because they realised that the application market is so small and there are not enough customers to get money through advertising. In result, this type applications work as an advertisement for big companies.
3. Creating awareness: This taxonomy consists of small companies that want to test that the proposition of the application is viable or not.
4. Testing idea: Mostly are single developers that have an idea and want to know if it's good enough to fly or they need to invest more.
5. Personal reputation: Single developers who are working in highly visible open source projects.

4.1.1 Open Knowledge and OpenGLAM

Open Knowledge, contracted to lead in support for openness, co-ordinates over twenty domain-specific Working Groups¹⁹ that focus on discussion and activity around a given area of open knowledge. The OpenGLAM Working Group²⁰ is a global network of people who work to open up cultural data and content. The group provides documentation for cultural institutions wanting to open up their data and runs workshops and events bringing together groups that are committed to building an open cultural commons. The Working Group Members act as a bridge between different organisations and initiatives, and the global network meet every month virtually to discuss relevant updates, pressing issues, and next steps to be taken. The group is currently co-ordinated by Joris Pekel from Europeana with support from Lieke Ploeger of Open Knowledge.

This working group forms part of the wider OpenGLAM community, who promote free and open access to digital cultural heritage held by Galleries, Libraries, Archives and Museums. OpenGLAM offers both off- and online forums for professionals working within the cultural sector to share their experiences around opening up their holdings.

OpenGLAM have supported work around hacking and building on open content including Coding Da Vinci Open Culture Hackathon²¹, 1st Swiss Open Cultural Data Hackathon²², Spaghetti Open data²³ and others. The OpenGLAM community are keen advocates of apps built on open cultural heritage content and there may be opportunities to reach out to them for feedback and support in promotion of E-Space work. In addition, the work executed by Open Knowledge within the context of E-Space will form a valuable contribution to the OpenGLAM community, providing a new perspective on reuse of cultural heritage content by the creative industries sector. The OpenGLAM website and social media channels will provide the means to maximize visibility of the work done within E-Space and push it out to a global audience of open cultural data enthusiasts.

¹⁹ See *Open Knowledge Working Groups*, <https://okfn.org/get-involved/working-groups/>

²⁰ OpenGLAM works under a set of core principles related to the power of open and underpinned by the conviction that galleries, libraries, archives and museums have a fundamental role in supporting the advance of humanity's knowledge. They are the custodians of our cultural heritage and in their collections they hold the record of humankind. The internet presents cultural heritage institutions with an unprecedented opportunity to engage global audiences and make their collections more discoverable and connected than ever, allowing users not only to enjoy the riches of the world's memory institutions, but also to contribute, participate and share.

²¹ See *Open Culture Hackathon Coding da Vinci*, <http://openglam.org/2014/05/02/coding-da-vinci-open-culture-hackathon-first-round-started/>

²² See *1st Swiss Open Cultural Data Hackathon*, <http://openglam.org/2014/11/27/1st-swiss-open-cultural-data-hackathon/>

²³ See *Spaghetti Open data*, <http://openglam.org/2014/07/02/spaghetti-open-data/>

Back in 2011 Vice President for the Digital Agenda of the European Commission Neelie Kroes made the following call to action in her Foreword: Culture and Open Data: How Can Museums Get the Best from their Digital Assets?:

*"I urge cultural institutions to open up control of their data...there is a wonderful opportunity to show how cultural material can contribute to innovation, how it can become a driver of new developments. Museums, archives and libraries should not miss it."*²⁴

The majority of cultural heritage institutions have been rising to this challenge and implementing new forms of transparency and public access in their policies. In the past few years there have been an increasing number of initiatives that release GLAM content openly. In 2013 the most high-profile of these were the release of a million public domain images onto Flickr by the British Library, the release of 4.600 high-resolution scans of works from the Getty Museum in Los Angeles as open content and the release of 111.000 high-quality images of famous paintings such as the Nightwatch by the Rijksmuseum. Many GLAM institutions have followed suit and there is now a wealth of excellent public domain content. E-Space is dependent on this open content in its quest to understand how you can make money out of the re-use of digital cultural heritage.

4.1.2 Open Content and Open Licensing

Open Knowledge and the Open Definition Advisory Council recently announced the release of version 2.0 of the Open Definition²⁵. The Open Definition sets out principles that define "openness" in relation to data and content. The Definition plays a key role in supporting the growing open ecosystem. The definition makes precise the meaning of "open" in the terms "open data" and "open content" and thereby ensures quality and encourages compatibility between different pools of open material. Its development and use has been key in the open movement.

Although it would not be appropriate to give a comprehensive overview of open content and open licensing at this point (and there are already many excellent resources available, many of which are referred to in chapters 1.18 and 1.24 of this deliverable) it seems pertinent to give an explanation of some of the noteworthy points.

Throughout this deliverable the term **open** will be used. When referring to content, data or tools the term open will be used in the sense of the Open Definition mentioned above. What is important to note here is that true openness lies in *unrestrictive licensing*.

The terms **open data** and **open content** are also used often in this deliverable. The two terms are occasionally used interchangeably because many key concepts (such as attribution, non-commercial use etc.) apply to both and many organisations deal with both. However it should be noted that in IP law 'data' and 'content' are not considered the same thing, one is protected by the database directive (in the EU) and the other by copyright.²⁶ For clarity:

- **Open data** is data that can be freely used, reused and redistributed by anyone - subject only, at most, to the requirement to attribute and share alike. Cultural open data (or meta-data is data) is about cultural works and artefacts — for example titles and authors — and generally collected and held by galleries, libraries, archives and museums.
- **Open content** is a creative work, or work of the intellect, that can be freely used, reused and redistributed by anyone - subject only, at most, to the requirement to

²⁴ See *Closed Doors to Open Gates* by Nellie Kroes, <http://www.firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/UC/article/view/3771/3053>

²⁵ See *Open Definition*, <http://opendefinition.org/od/>

²⁶ Databases may have copyright protection in the structure where original, and the sui generis right in the contents where the conditions are met.

attribute and sharealike. Types of open content include videos, images, audio files, text files etc.

A licence is a legal document that allows others to use content or a dataset under certain conditions. Public licences²⁷ contain a number of conditions that users of the licensed dataset must respect in order to be allowed to use the licensed content. The user is infringing the underlying rights, if he or she uses the content and does not respect the licensing conditions. In general, licenses can be granted to specific individuals (e.g. a licence for an ebook) or addressed to any recipient of the licence (Custom vs Standard licences).

However, not all public licences are also open licences. An open licence is one which grants permission to access, re-use and redistribute a work with few or no restrictions. Restrictions that can be imposed, without losing the ability to freely use this material with other open material include the *“requirement to give credit to the author and/or making any resulting work available under the same terms as the original work”*. If you want to publish your content as open content you will need to publish your data under a licence that must allow that the data can be freely used, reused and redistributed by anyone. Licensing conditions such as no derivative work, non-commercial use only are not open licences as these conditions discriminate against certain types of users or prevent meaningful reuse.

There are two widely used families of open licenses: the Creative Commons licences (also see section 8.2, pages 59-61) and the Open Data Commons licences. The Open Data Commons licences have been specifically designed for use with databases. The Creative Commons licenses are designed to work with data and creative works. A list of Conformant Licences is available from the open definition site.²⁸

Public Domain Dedication licences do not establish any conditions that a user has to meet. The Open Data Commons Public Domain Dedication and Licence (PDDL) and the Creative Commons Zero Universal Public Domain Dedication (CC0) allow every user to use the licensed material for all purposes without any restrictions. In addition, the Creative Commons Public Domain Mark allows people to mark a work that is free of copyright restrictions worldwide.

Attribution licences are licences that place a single condition on users of the licensed material: The Open Data Commons Attribution License (ODC-BY) allows the users to copy, distribute and use the database, to produce works from the database and to modify, transform and build upon the database. The user must attribute any public use of the database, or works produced from the database, in the manner specified in the licence. For any use or redistribution of the database, or works produced from it, you must make clear to others the licence of the database and keep intact any notices on the original database. The Creative Commons Attribution License (CC-BY) allows the users to use the licensed material for all purposes. The licence requires users to give appropriate credit, provide a link to the licence, and indicate if changes were made. The users may do so in any reasonable manner, but not in any way that suggests the licensor endorses the user or the specific use made by the user. Attribution ShareAlike Licenses are the open licences with the most restrictions on users of the licensed material. In addition to the Attribution Licenses the Attribution ShareAlike Licenses also require, that the modifications of the original licensed material are licensed under the same conditions as the licensed material. The most common Attribution ShareAlike Licenses are the Open Data Commons Open Database Licence (ODbL) and the Creative Commons Attribution ShareAlike License (CC-BY-SA).

²⁷ A general public licence (GPL) is a copyleft license, which means that derived works can only be distributed under the same license terms. This is in distinction to permissive free software licenses, of which the BSD licenses and the MIT License are the standard examples. GPL was the first copyleft license for general use.

²⁸ See *Open Definition Licences*, <http://opendefinition.org/licenses/>

The licences mentioned above are likely to apply to content that will be used in demos, applications, services and/or tools developed as part of the E-Space Project.

The prototype services and applications developed in the pilots and hackathons will also need to be licensed. Those that take the open source route will need to navigate countless open source licences. There are a number of ‘Anything Goes Licences’ which place very few restrictions on what can be done with the code, including using the code in proprietary derivative works. They only require attribution in a specified manner. The most widely-used licences of this type are BSD-style²⁹; MIT/X11-style³⁰ and Apache Software License, version 2³¹.

The Copyleft Licences also allow open distribution, modification, and re-use of the code (with attribution), but insist that any derivative works be distributed under the same terms. Thus proprietary (all rights reserved) derivatives by third parties are not possible (unless the copyright holder gives permission). Commercial use and derivation by anyone is permitted, as long as the terms of the licence are honoured. Widely-used licences of this type are GPLv3 (GNU General Public Licence, version 3)³²; AGPLv3 (Affero GPL, version 3)³³. There is a comprehensive overview of all open source licensing models at opensource.org and more on licensing in section 8.

4.2 CHALLENGES TO OVERCOME

Openness is clearly a process as well as a destination and cultural heritage institutions are learning as they progress. There is a growing recognition, highlighted in the MW2013 paper *Open Culture Data: Opening GLAM Data Bottom-up*³⁴, that engagement with external parties is very much the way forward. The paper quotes Waibel and Erway’s paper³⁵ which states: “*for [GLAM] content to be truly accessible, it needs to be where the users are, embedded in their daily networked lives.*” Many of the E-Space partners are already practising opening up and reusing cultural content. For example Packed participated in the *Open Cultuur Data België* project,³⁶ which supported publishing cultural heritage collections as open data, raising awareness about the topic and creating creative applications based on open cultural data, and the WAAG society runs the *Open Design Lab*³⁷ aimed at sharing knowledge and tools around open design and promoting open license systems that allow guaranteed sharing of ideas.

However bringing together communities with varying agendas offers up a number of challenges.

4.2.1 Understanding Value and Business Modelling

One of the most cited papers making the case for open cultural content is the Europeana Whitepaper No. 2: *The Problem of the Yellow Milkmaid: A Business Model Perspective on Open Metadata*³⁸. The paper argues that poor replications of Johannes Vermeer’s *Yellow Milkmaid* painting have led to a rethink by Europeana of its Data Exchange Agreement, which governs the rights under which the metadata from Europe’s cultural heritage institutions is

²⁹ See *BSD-style licence*, <http://opensource.org/licenses/1.BSD-2-Clause>

³⁰ See *MIT/X11-style licence*, <http://opensource.org/licenses/MIT>

³¹ See *Apache Software licence*, version 2, <http://opensource.org/licenses/Apache-2.0>

³² See *GPLv3 (GNU General Public License, version 3)*, <http://opensource.org/licenses/GPL-3.0>

³³ See *AGPLv3 (Affero GPL, version 3)*, <http://opensource.org/licenses/AGPL-3.0>

³⁴ See *Open Culture Data: Opening GLAM Data Bottom-up* by Lotte Belice Baltussen, Maarten Brinkerink, Netherlands, Maarten Zeinstra and Nikki Timmermans, <http://mw2013.museumsandtheweb.com/paper/open-culture-data-opening-glam-data-bottom-up/>

³⁵ Waibel, G., & R. Erway. (2009). “Think global, act local—library, archive and museum collaboration.” *Museum Management and Curatorship* 24(4), 1–14.

³⁶ See *Open Cultuur Data België project*, <http://opencultuurdata.be>

³⁷ See *Open Design Lab*, <https://www.waag.org/nl/lab/open-design-lab>

³⁸ See <http://pro.europeana.eu/documents/858566/2cbf1f78-e036-4088-af25-94684ff90dc5>

made available in its repository. Because of the low-quality copies of the painting on the web, according to the Rijksmuseum, *“people simply didn’t believe the postcards in our museum shop were showing the original painting. This was the trigger for us to put high-resolution images of the original work with open metadata on the web ourselves. Opening up our data is our best defence against the ‘yellow Milkmaid’ .”* The resulting change in the new agreement is the call for a more open licence (Creative Commons CC0), which allows for the re-use of descriptive metadata in a commercial context or by commercial players. Discussions related to the Data Exchange Agreement, took place in a July 2011 workshop held in The Hague, The Netherlands. At this Open Metadata Workshop a number of areas were identified as requiring further investigation. One of these is important relates to ‘loss of revenue/spill-over effects’:

“Instead of measuring success by the amount of commercial revenue that institutions are able to secure from the market, new metrics should be developed that measure the amount of business generated (spill-over) based on data made openly available to the creative industries. This requires a change in evaluation metrics on a policy level.”

Cultural heritage organisations clearly have a task in redefining value and long-term impact of openly licensed content and tools. This challenge is not dissimilar from the one creative industries face when justifying use of open content, open source release of tools and attempts to monetise them. Is success measured in commercial output or can it be judged in more subtle ways, such as in increase in the number of users, marketing impact or elsewhere? The aforementioned for-profit taxonomies discussed in the Apps4Europe paper on open data business models³⁹ offer different perspectives on value.

The uniting feature of the creative industries is that their focus is using intellectual capital, ideas and innovation to make money. The idea of wealth creation at times seems misaligned with that of open content. However open content is, in the majority, created by publicly funded bodies, offers up a huge potential to those willing to invest time and effort in building upon shared ideas, images and content. Often the results of this creative activity can then become new open sources for inspiration.

The Open Data Institute (ODI), a private limited company established as a not-for-profit organisation set up by the UK government to catalyse the evolution of an open data culture to create economic, environmental, and social value is a good example here. The ODI aims to unlock supply, generate demand, create and disseminate knowledge to address local and global issues. They will convene world-class experts to collaborate, incubate, nurture and mentor new ideas, and promote innovation. Their initial funding was through the Technology Strategy Board, the UK’s innovation agency whose goal it is to accelerate economic growth by stimulating and supporting business-led innovation. The ODI have recently announced an open data development startup programme to be replicated across Europe with over £11 million funding. The ODI organise a Heritage and Culture Open Data Challenge⁴⁰ that considers how open data can be used to engage more people, and more diverse people, in UK heritage and culture.

Monetisation and adding value are clearly connected but there is more work to be done in fully understanding their relationship and the socioeconomic impact of reuse of open content.

4.2.2 Lack of understanding by cultural heritage sector of the requirements of creative industries

As the E-Space project has identified, there are significant barriers to reuse of openly licensed materials by creative industries. These barriers are clearly described in the blog post by Melissa Terras: *So you want to reuse digital heritage content in a creative context? Good luck with*

³⁹ See *Business models for open data applications*, <http://www.appsforeurope.eu/article/business-models-open-data-applications>

⁴⁰ See *Heritage + Culture Open Data Challenge*, <http://www.nesta.org.uk/heritage-culture-open-data-challenge>

that.⁴¹ In this post Melissa laments how difficult it is for those who are not part of the GLAM bubble to understand licensing and to reuse content. She puts this down to poor interfaces, the shackles of copyright which means content is usually old (pre-20th century) or has restricted use, poor image quality and a failure by others to understand what she calls ‘the maker privilege’ (“people reusing digital images are putting in significant time and often money to turn them into something else.”)

A subsequent discussion on the OpenGLAM mailing list led to the following observations from Maarten Brinkerink from the Netherlands Institute for Sound and Vision:

“To me it reinforces the feeling that there still is a huge gap between institutions and ‘makers’ that needs to be bridged, before we can actually realize the mythical ‘creative reuse’ potential (although I do also strongly believe this potential exists).”

The OpenGLAM group discussed what they felt to be the biggest issues. These were primarily related to two factors. Firstly the licensing assigned to images is not open enough and often too many restrictions apply to allow users to do what they would really like to do with the content. Secondly images are often of low quality, difficult to access and find and fail to be ‘bundled up and ready to go’. So for example on Europeana, while there are many images reported as being open within the database, many of the hits fail to lead to actual image files and even fewer lead to an image file that is large enough to reuse in any significant way. Europeana has recently launched its ‘Data’ section on the Europeana labs website, showcasing some of the collections that do quality for this kind of re-use and are free from abovementioned hurdles.⁴²

‘Valuing the Public Domain’⁴³ is a major research and knowledge exchange project carried out by CREATE, University of Glasgow with the UK Intellectual Property Office, co-funded by the Economic and Social Research Council (ESRC). During the project the research team conducted interviews with managers of 22 creative UK firms that used public domain materials to create commercial products. Research explored why firms made decisions to invest in development of public domain projects, finding 4 main rationales: 1) engagement with fan community of existing literary work, 2) use of public domain material to complement a technological platform or subscription service; 3) a conscious entrepreneurial strategy based on identification of existing demand and 4) partnership with a public institution to celebrate and engage the public about an event or anniversary of significance. They identified the following issues relating to public domain uptake:

- *“Firms working with visual or multimedia content reported difficulties in locating and securing high-quality sources of public domain works (image resolution, digital format). This was a significant challenge to commercialisation.*
- *There was little concern about competition due to non-excludability of source material, but firms worried about costs of marketing and sustaining PD projects when initial development cost and investment was also low.*
- *Clarity on legal use (e.g. requirements for ‘diligent search’ when using orphan works) would improve commercialisation potential.”*

There is still work to be done to make reuse of content straightforward.

⁴¹ See <http://blogs.lse.ac.uk/impactofsocialsciences/2014/10/10/reuse-digital-heritage-content-in-a-creative-context/>

⁴² See Europeana Labs, <http://labs.europeana.eu/data/> for a selection of available openly licensed media objects - books, photos, art, artefacts, audio clips and more.

⁴³ See Create Workshop: Valuing the Public Domain, <http://www.create.ac.uk/blog/2014/09/25/valuing-the-public-domain-a-workshop-for-uk-creative-firms/>

4.2.3 Lack of understanding by creative industries of the restrictions on cultural heritage organisation

It is also important to point out that makers often are unaware of the directives cultural heritage institutions are governed by and the limitations they face in areas such as copyright, funding, knowledge of objects etc. Copyright, and other factors involved in delivering open content, remain complex so keeping all those with a stake in open cultural heritage content happy can prove problematic.

While openness is of great benefit for the creative industries and a much-desired quality even those with only a rudimentary knowledge of copyright and licensing will know that achieving openness is often difficult and repeatedly complicated.

Many digital collections contain works for which the parent institution does not own the copyright. This may be because the donor of the physical object did not own the copyright, or maybe the copyright status is unknown - as is the case with orphan works. Providing permission for third-party reuse of orphan works is challenging and resolving the status of orphan works by finding copyright holders is costly and often unsuccessful. In October 2014 the EU Directive on Orphan Works came into effect⁴⁴. The directive sets out common rules on the digitisation and online display of orphan works and provides regulations on how to identify orphan works (also see section 7.2, pages 51-53). The aim of the directive, agreed in 2012, was to make it "safer and easier for public institutions such as museums and libraries to search for and use orphan works ... Today, digitising an orphan work can be difficult if not impossible, since in absence of the right holder there is no way to obtain permission to do so. The new rules would protect institutions using orphan works from future copyright infringement claims, and thus avoid court cases like that in the US, in which a Google project to digitise and share all kinds of books, including orphan works, was blocked on the grounds that the orphan works question should be settled by legislation not private agreements."⁴⁵

Unfortunately the directive has come under criticism for being essentially a compromised proposal and placing huge responsibility and work on cultural heritage institutions. The criticisms are set out in a blog post⁴⁶ by Paul Keller, Kennisland. They can be paraphrased as:

- "With regard to the identification of 'orphan works', the directive requires that 'a diligent search is carried out in good faith for each work' by the memory organization attempting to use such a work."⁴⁷
- There is the introduction of a requirement to compensate rights holders for past uses of their works if the rights holders reappear and claim their works (thus ending the works' 'orphan' status).
- The compromise text of the directive does not change the limited list of permitted uses of the Commission proposal.
- The compromise text contains the same limited list of beneficiaries as in the Commission proposal: The directive only allows uses of 'orphan' works by 'publicly accessible libraries, educational establishments or museums, as well as archives, film or audio heritage institutions and public service broadcasting organizations' in the context of their public interest missions."

⁴⁴ See EU Directive 2012/28/EU on Orphan works, http://ec.europa.eu/internal_market/copyright/orphan_works/index_en.htm

⁴⁵ See "Orphan" works: informal deal done between MEPs and Council, <http://www.europarl.europa.eu/news/sv/news-room/content/20120606IPR46383/html/Orphan-works-informal-deal-done-between-MEPs-and-Council>

⁴⁶ See 'Orphan works' compromise fails to deliver, <http://www.communia-association.org/2012/06/25/orphan-works-compromise-fails-to-deliver/>

⁴⁷ The problem with the notion of diligent search is that there is no universally acceptable, reliable, methodology for conducting such it as yet.

The long-term implications of the EU Directive on Orphan Works are considered in this follow up post⁴⁸ written more recently. Keller writes: “*The text also is a legislative train wreck that fails to make any substantial improvements to the situation in which memory institutions engaged in digitization efforts find themselves*”. While there are likely to be orphan works released into the public domain it is likely to be a laborious process. Often cultural heritage institutions are put in an awkward position because they weigh up the requirement of reuse alongside the duty to protect the IP of artists. So what happens is that cultural heritage organisations publish orphaned materials on their (collection) websites anyway, but then work with notice and takedown policies (see section 7.3).

Another copyright and licensing challenge is that a considerable amount of open content will be licensed openly to allow reuse and remixing of content, yet requires attribution, so is not in the public domain. This may be due to a requirement of institutions to track uses of their open content and data to show the impact of digitising and publishing content. Other licences allow for reuse but not for commercial gain. Monetisation can be complex as while cultural heritage institutions aim to support innovation and reuse they must also protect against loss of potential income and also against misuse of collections. They have a duty to conserve collections in perpetuity and demonstrate the return on investment of digitisation and opening of content. The institutional setting of cultural institutions requires further investigation in order to understand why licensing models fail.

The challenges of working with licensed material highlighted above can often lead to limitations in activity and approaches. It is hoped that the E-Space pilots will be innovation led, rather than supply led, hence E-Space proposes the creation of the protected space.

4.3 CASE STUDIES

4.3.1 Reimagining Open Content

In order to demonstrate the benefits of releasing open content and illustrate its potential the OpenGLAM community has been diligent in recording case studies. A series of blog posts⁴⁹ have been written about open content release and interesting and innovative approaches to reuse. Case studies offer not only powerful social proof that reuse is taking place but they also engage the wider audience by providing a story for people to tell and inspiration. It is the aim of Open Knowledge that through its work on the E-Space project case studies on the project’s pilot trajectories can be added to the growing list.

In 2012, the Statens Museum fur Kunst (SMK) in Copenhagen decided to make a small batch of 160 high quality digital images of their public domain collection openly available on the web. The museum’s choice of open licenses was driven by a strong wish to encourage sharing and creative and innovative reuse of their digitized collections. Over the last couple of years the Copenhagen Metro has been expanded, causing frustration for the people living next to the construction sites. As a positive countermove the Copenhagen Metro Company (CMC) decorated the metro fences creatively, often in partnership with local communities. SMK entered into a partnership with CMC and used its charter collection of open images as the raw material. SMK was represented by Young People’s Laboratories for Art (ULK) – a community of young “art pilots” who meet at SMK once a week to do volunteer work on creative projects. ULK created a series of remixed digitised artworks using mashups, collages and Photoshop manipulations, that were used on the fences. The full story is available on the OpenGLAM blog⁵⁰.

⁴⁸ See *Europe’s cultural heritage institutions deserve better*, <http://www.communia-association.org/2014/11/06/europes-cultural-heritage-institutions-deserve-better/>

⁴⁹ See *OpenGLAM case studies*, <http://openglam.org/category/case-studies/>

⁵⁰ See *Case Study: Remixing Openly Licensed Content in the Public Space*, <http://openglam.org/2013/07/08/2353/>

In 2013 the Rijksmuseum in Amsterdam paired with local dairy Albert Heijn to create a series of milk cartons, yogurt containers, and custard packages that show sixteen artworks from the museum's permanent collection. These included Vincent van Gogh's self-portrait, a cartoonish rabbit figure by Dick Bruna, Rembrandt's Night Watch, Vermeer's The Kitchen Maid and more. The intention of the project was to start family discussions about art at the breakfast table. There was also a supporting web page⁵¹ that aimed to help users to create their own creation from a work of art.

British Library Labs is an initiative that invites researchers and developers to work with the British Library digital collections to address important research questions. Their series of competitions have surfaced some highly innovative uses of openly licensed content⁵². One of the winners for 2014 was the Victorian Meme Machine which has created an extensive database of Victorian jokes that are available for use by both researchers and members of the public. It analyses jokes and semi-automatically pairs them with an appropriate image (or series of images) drawn from the British Library's digital collections and other participating archives⁵³. Another interesting reuse of British Library content is the Moments video, a 3d video of public domain images⁵⁴ created from the British Library Flickr collection.

In June 2014, the Te Papa Tongarewa Museum of New Zealand made over 30.000 images from their collections freely available, in the highest resolution. More than half of these are openly licensed: the other half currently has a NC (non-commercial) restriction, which the institution aims to remove in the future. In a recent presentation⁵⁵ given at the National Digital Forum Conference (25-26 November 2014, Wellington, New Zealand), Adrian Kingston and Philip Edgar show the massive increase in attention and views that the collection received following upon the release, as well as many inspiring examples of how people have been reusing the content. One of these includes the artwork 'Knowledge on a beam of starlight', a vinyl artwork which was created by artist Kerry Ann Lee using thousands of images from the museum collection.

The Apps for Europe Project⁵⁶ runs an annual competition to find the best new apps across Europe that can scale into viable businesses. These apps must be built upon open data and open content. Supported apps include the Inventing Europe Museum App⁵⁷ which allows you to discover the history, culture, and formation of Europe through the lens of technological objects and (audiovisual) images in a combined real and virtual world; Nostalgeo⁵⁸, which allows you to search for old postcards in your neighbourhood and compare them with the current streetview; and Museapp⁵⁹, a library of details taken from famous works of art that you can add to an online canvas to create your own remix. The 10 finalists showcased their ideas to a jury of experts, investors and other conference delegates. Nostalgeo received venture capital funding.

A very closely related project, Europeana Creative (<http://pro.europeana.eu/web/europeana-creative/home>), is also developing "novel applications through the innovative re-use of digitised cultural heritage data". To showcase the data innovative pilot applications are being

⁵¹ See *Martijn Pronk Creations*, <https://www.rijksmuseum.nl/en/rijksstudio/91--martijn-pronk/creations/899d1d10-5596-4bdc-ad52-2406cbe41ad1>

⁵² See *British Library Labs*, <http://labs.bl.uk/Ideas+for+Labs>

⁵³ See *Victorian Meme Machine*, <http://britishlibrary.typepad.co.uk/digital-scholarship/2014/06/victorian-meme-machine.html>

⁵⁴ See *Moments by Joe Bell*, <https://www.youtube.com/watch?v=uiS1cx38rKk>

⁵⁵ See *Open Access at te Papa*, https://docs.google.com/presentation/d/1MG4NNK5erzYJ9q5QD_qpZsDAImRmyGG_XNV3CQFyhWQ/edit#slide=id.p

⁵⁶ See *Apps4Europe*, <http://www.appsforeurope.eu/apps>

⁵⁷ See *Inventing Europe Museum App*, <https://itunes.apple.com/app/inventing-europe-museum-app/id828023607?mt=8>

⁵⁸ See *Nostalgeo*, <http://www.nostalgeo.com/>

⁵⁹ See *Muse-app*, <http://www.museapp.org/>

developed around five theme areas: natural history education, history education, tourism, social networks and design. Pilot development work and a series of developer challenges have taken place over the course of 2014 with interesting winners surfacing. In April 2014 the natural history track first prize was awarded to the Pathway Authoring Tool for Museums from Agro-Know (<http://www.agroknow.gr/agroknow/>).

Trimaps (<http://www.agroknow.gr/agroknow/>), web-based tool including a mobile application to enable geolocation on historical maps contained in the Europeana database, and Zeitfenster (<http://www.zeitfenster-app.de/>), an application allows users to time travel through cities, places and events and experience different times and topics exactly at the location where it took place years ago, were joint winners in the history education track. Other challenges have run over 2014 with the current challenges concluding in early 2015. Project Manager for E-Space, Tim Hammerton, has been invited to attend the final Europeana Creative Challenge in Manchester on 27 February 2015 to learn lessons that will aid in the delivery of the E-Space Project.

One of the difficulties here is that finding case studies of creative industry use of open content is problematic. Many working within the creative industries are too busy working to document the processes they go through. However by looking at services like Etsy⁶⁰, Folksy⁶¹ and other online marketplaces that buy and sell unique goods, there is obviously reuse going on. A search for 'public domain images' on Etsy results in 796 items, primarily consisting of downloadable images and digital collage sheets. Many of these images have been improved on by removing backgrounds, reducing marks, improving the colour and so on. This is often a laborious process and so the images have had value added, resulting in them being 'worth paying for'. So if a significant number of images are being directly sold on then countless more are being repurposed and printed on t-shirts, tea towels, cushions, flyers, added to videos etc.⁶² Melissa Terras, Director of University College London (UCL) Centre for Digital Humanities, writes on her blog⁶³ about the process creative industries often go through to create produce suitable for selling and the challenges they face.

She writes "We also live at a time where it has become increasingly easy to take digital content, repurpose it, mash it up, produce new material, and make physical items (with many commercial photographic services offering no end of digital printing possibilities, and cheaper global manufacturing opportunities at scale being assisted with internet technologies). What relationship does digitisation of cultural and heritage content have to the maker movement? Where are all the people looking at online image collections like Europeana or the book images from the Internet Archive and going... fantastic! Cousin Henry would love a teatowel of that: I'll make some xmas presents based on that lot!"

Her suggestions are for cultural heritage industries to:

- "Put out of copyright material in the public domain to encourage reuse. Go on! What are you scared of?"
- Provide 300dpi images as a minimum.
- Curate small collections of really good stuff for people to reuse. Present them in downloadable "get all the images at once" bundles, with related documentation about usage rights, how to cite, etc.
- Think carefully about the user interface you have invested in. Have you actually tried to use it? Does it work? Can people browse and find stuff? Really?

⁶⁰ See Etsy, <https://www.etsy.com>

⁶¹ See Folksy, <https://folksy.com/>

⁶² See <http://www.culturelabel.com/> CultureLabel "offers the chance to explore the greatest art and design-led products handpicked from iconic museums, galleries, creative boutiques and direct from artists."

⁶³ See *Reuse of Digitised Content (1): So you want to reuse digital heritage content in a creative context? Good luck with that*, <http://melissaterras.blogspot.co.uk/2014/10/reuse-of-digitised-content-1-so-you.html>

- Make sure the image quality is good before putting it online. Don't chop bits off illustrations.
- Make rights clearer. Give guidance for rights clearance for in-copyright material, and perhaps provide small collections with pre-cleared rights, to allow some 20th Century Materials to be reusable.”

Melissa was also co-author with Isabella Kirton on a paper presented at Museums and the Web 2013 entitled *Where Do Images of Art Go Once They Go Online? A Reverse Image Lookup Study to Assess the Dissemination of Digitized Cultural Heritage*.⁶⁴ The paper explores Reverse Image Lookup (RIL) technologies, usually used to identify unlicensed reuse of commercial photography, to help in assessing the impact of digitised content. It concludes by saying that *“this study has highlighted how little information we have on how digitized images of cultural content are reused in the Web environment, and more importantly the extent to which we lack a frame-work for analysing this type of information.”*

Other interesting collections of case-studies on reuse include the Creative Commons GLAM wiki⁶⁵ and case-studies⁶⁶. Projects such as Europeana Cloud⁶⁷ and the Europeana Creative challenges, run as part of the Europeana Creative Project, aimed to identify, incubate and spin off into the commercial sector viable online applications based on the re-use of digital cultural heritage content. A series of pilots are available on the site⁶⁸

Projects like E-Space are so valuable because they showcase the potential of open content and help others to reimagine their cultural heritage.

4.3.2 Open Content Exchange Platform

The E-Space ‘content space’ will facilitate the engagement of content holders and creative industries with varying types of content: proprietary (rights reserved) content, copyright protected content including open content, and public domain content. It will have three main components: a legal framework, an operational framework and the Open Content Exchange Platform. The Open Content Exchange Platform will have an emphasis on open content as this is believed to be the best way to derive value from public domain content. The platform will be a set of collated resources, including an overview of available openly licensed content, documentation and materials on the reuse of open content as well as blog posts and articles on open content. The Open Content Exchange Platform will be hosted on the E-Space server and displayed on the main website under the content space link⁶⁹. The overview of openly licensed content available will have filtering options and include links to content from E-Space partners and in other repositories (like Europeana Labs, Coding Da Vinci, opendata.ch, CC commons case studies, Open Cultuur Data, etc.) E-Space is committed to integrating with Europeana Labs whenever possible.

Many of these resources will be discovered through crowdsourcing knowledge using the OpenGLAM working group and network. Documentation will be relevant to content holders, for example on the use of open licences for content in E-Space and on the value of openly licensed content more generally, it will also be relevant to tools creators, for example on open source licensing, dual licensing, open business models etc. There will be a focus on materials on the re-use of openly licensed materials that targeted the creative industries including manuals on how to source public domain works from other repositories. Open Knowledge will

⁶⁴ See *Where Do Images of Art Go Once They Go Online? A Reverse Image Lookup Study to Assess the Dissemination of Digitized Cultural Heritage*, <http://mw2013.museumsandtheweb.com/paper/where-do-images-of-art-go-once-they-go-online-a-reverse-image-lookup-study-to-assess-the-dissemination-of-digitized-cultural-heritage/>

⁶⁵ See *Creative Commons GLAM wiki*, <https://wiki.creativecommons.org/GLAM>

⁶⁶ See *Creative Commons GLAM Case studies*, https://wiki.creativecommons.org/Case_Studies

⁶⁷ See *Europeana Cloud*, <http://pro.europeana.eu/web/europeana-cloud>

⁶⁸ See *Europeana Creative pilots*, <http://pro.europeana.eu/web/europeana-creative/pilots-and-challenges>

⁶⁹ See E-Space Content space, <http://www.europeana-space.eu/outcomes/content-space/>

also support the delivery of a series of high-profile blogs and articles on openly licensed content (both from E-Space partners and beyond).

Open Knowledge intends to pilot the software to be used for the E-Space Open Content Exchange Platform on the OpenGLAM website. They are currently looking at Omeka⁷⁰, a free, flexible, and open source web-publishing platform for the display of library, museum, archives, and scholarly collections and exhibitions. Omeka is a tool is specifically designed to showcase collections and items that sit within those collections. It is extendable and there are quite a few plugins that maybe of interest. There are also opportunities to edit the php. The tool will be trialled on the OpenGLAM Open Collections page, which delivers information about openly licensed datasets from several cultural institutions. A test server has been set up and the OpenGLAM community are being canvassed for feedback and suggestions on use of the tool. Other tools that have been considered are Listify, Datahub, Pinboard and various plugins for Wordpress including ZotPress.

⁷⁰ See *Omeka*, <http://omeka.org>

5 A PROTECTED SPACE: RULES OF ENGAGEMENT

As has been discussed above, obtaining and making available tools and content using open licences can be very powerful. However, open is not always possible. When it is not, our proposal is to develop a protected space in which innovation can take place that is innovation led rather than content fed. The purpose of this section is to help pilots, development teams and hackathon organisers and participants decide how best to acquire, share and divide IP in any content or tools that they use and develop focussing on copyright. This part of the deliverable is intended to provide over-arching principles and guidelines since we acknowledge that there cannot be a one-size-fits-all approach to the varied pilots and hackathons within this project. How the pilots, the organisers of the hackathons and the hackathon attendees actually go about organising their IP will be reported on in the second iteration of the deliverable (D3.2 and D 3.4) that is due in Month 24.

As noted in section 2.3 above, each of the pilots differ in what and how they will innovate with tools and with content. Similarly, the hackathons will also differ in their inputs and outcomes. This section highlights the IP that needs to be considered in the pilots and hackathons that use tools and content that have first been selected by the pilot, then developed by the pilot and then used and further developed in the hackathon.

In this scenario (and as noted in section 2.3 above) there will be IP existing and arising as follows:

- IP in the tools and content (third party) used by the pilots
- IP in the tools and content further developed within the pilot organisations
- IP in the tools and content contributed by the hackathon attendees
- IP in the tools and content further developed by the participants in the hackathon

Prior to entering the protected space, we would recommend that those contributing to the pilots, and those engaging in the hackathons decide how the IP arising from their efforts should be dealt with: in other words, the IP described in the second and fourth bullet points above. Some strategies for consideration can be found below.

5.1 THE PROTECTED SPACE

A key challenge for the pilots and for the hackathons is to innovate with tools and materials that are protected by copyright. While one fundamental rationale for the copyright system is to boost innovation through encouraging the creation of new works, copyright subsisting in the works once created means that re-working and re-using existing works within the boundaries of the law can be challenging. For this reason we are suggesting the development of a 'protected space' for the pilots and hackathons. This would be a space in which innovation can take place as unencumbered by copyright as possible, but in respect of which agreement would have to be reached on ownership and exploitation of copyright in the tools and the content (where applicable) before they can move out of the protected space. Agreement on IP would be a key part of developing a business model and for those elected on the basis of the business model, moving on to the next stage - incubation. The boundaries of this space would be both technical and legal; technical in that no-one except people who are authorised may 'enter' and legal in that at least some of the licences will allow users within the space to work with tools and content but within the protected space only.

5.1.1 *Pilots and hackathons: IP in tools and content belonging to third parties*

For both pilots and hackathons and in relation to third party content, we would suggest the following strategy for this space:

Use works – meaning content as well as tools - that are licensed with as few restrictions as possible. These would include:

- Open licences, in general, in the sense of conforming to the Open Knowledge Definition⁷¹ as well as the OSI⁷² and FSF⁷³ for software.
- Attribution licences (CCBY, ODBL Attribution, OGL licences), a subset of the open licences
- Public Domain and CCO content (together referred to as ‘open licences’⁷⁴ in this document)
- Open Source Licences and Open source tools under a "copyleft" license (another open licence subset) like GNU GPL requires that any modifications to software must also be released under the same licences, the equivalent of a CC Share-Alike theory (see also section 8.3 on the open source license chooser)

A note from WP5 leader Gregory Markus (NISV)

If possible, pilots, hackathon organisers, and project partners should be making every effort to provide a bounty of openly licensed content as outlined in task 3.5 of the DOW:

“Part of the content that will be used in the E-Space Pilots is not yet available in Europeana. WP3 will guide the institutions holding the content (COVUNI, FST, OCC) through all the necessary steps involving IPR by making use of the tools developed in the work package (from rights clearing through to upload in Europeana)...In addition, the providers with content already in Europeana (EVK, LGMA, NISV, KU LEUVEN, SPK, CUT) will update their rights labels and open their content as much as possible for further creative use and re-use.”

I, with the help of technical partners within the EuropeanaTech Community and E-Space consortium, will provide access to lists of open source software relevant for the digital cultural heritage community.

However we recognise that there will be content and tools that pilots and hackathon attendees will want to use but which is not available under one of these licences. In these circumstances we would recommend that terms of use of the tools and/or content are negotiated for the purposes of the pilot and the hackathon (referred to as protected licences in this document) and which can be used in the protected space.

An example of a bespoke licence negotiated for the Dance pilot

Video Clip Licenses Agreement for the E-Space Dance Pilot

EU Funded E-Space Dance Pilot Contact: XXXX

The Video Clip License Agreement is made this September 2. 2014, in Coventry, United Kingdom.

This License Agreement, dated August 19.2014, is made and entered in and by in between XXX and YYY

⁷¹ <http://opendefinition.org/>

⁷² <http://opensource.org/osd>

⁷³ https://en.wikipedia.org/wiki/Comparison_of_free_and_open-source_software_licenses

⁷⁴ Although technically the Public Domain Mark is out of copyright material and CCO is similarly a Public Domain material in the jurisdictions where a waiver is allowed.

I, XXX agree that the segment footage and video clips on loan to the E-Space Dance Pilot Project, remains the property of YYY. The materials and dance content on loan to E-Space will only be used within the E-Space Dance Pilot and will not be used for any other purpose. Any recording, still photography, videotaping, filming, transmission, broadcast or other use of the footage for commercial purposes or paid exhibitions without the prior express written consent of YYY, is strictly prohibited. Unauthorized use of segment footage will result in the immediate revocation of licensing rights. The E-Space Dance Pilot Project will keep the content on file until the completion of the project. XXX will stay in touch with YYY as to the progress of the Pilot and project. If for any reason the usage of the dance films wants to be extended, XXX or another member of the E-Space Dance Pilot will get in touch with YYY. This agreement also points out that no remuneration for the usage of the dance content is due to YYY.

Agreed By:

Signed: XXX YYY

Other CC licences could also be used such as CC-BY-NC-ND, CC-BY-NC-SA and CC-BY-SA. While we acknowledge that hackathon attendees could use third party materials, for example, from Flickr or Wikimedia Commons beyond the terms of any agreement, a degree of technical security (see section 9.1.2.) for the protected space would be sufficient to prevent opportunistic piracy and would assure content providers that the risk was low enough for them to participate. The Technical Space should also have a notice and take down policy available (see section 7.3, page 53) and while it should not be possible for tools or content to 'leak' out of the protected space, or unauthorised persons to gain access to the protected space, the inclusion of a notice and take down policy would add to a risk mitigation strategy. It should be noted at this point that while some content used for the hackathons will be streamed (eg. Europeana TV) other content may be downloaded by hackathon attendees during the course of the hackathon. The rules of participation in the hackathon within the protected space need to include an agreement by the hackathon attendees that this content will be deleted from any hardware that they might have downloaded it on to at the end of the hackathon.

The two potential strategies for dealing with third party IP are thus:

- Firstly and preferably: Keeping content as free as possible so there will be no need for negotiations over licences relating to third party IP at the incubation stage
- Secondly: Enabling pilots and hackathons to use as much high quality content as possible specifically for the protected space, and then negotiating at the end of the hackathon regarding licensing third party IP

Case study: TV pilot

It is notable that from the TV pilot discussions⁷⁵, the hackathon output will be a prototype or 'burn copy' (not for release). This should simplify permissions, and then a business case can be worked through for market readiness. Whatever comes out of the hackathon and goes to the workshop, therefore, will not be made live. The licences associated with tools, not content, was a key issue discussed at the TV hackathon meeting. The hosting, application layer and content all required particular arrangements. Where these are provided for participants, the licences and limitations need to be very clear to participants in advance and need to be

⁷⁵ The TV pilot is referred to here as it is the first pilot to take place in the project's timeline, with a hackathon on its subject already happening early May 2015.

considered as part of the selection criteria for progression to business modelling/incubation. E-Space WP3 will join forces with WP5 (in charge of hackathons) in order to provide clear guidance to hackathon attendees (see also section 6, pages 46-49). There should be no restrictions in regard to the software licensing so as to attract the maximum number of participants who can use whatever software they want, but E-Space will make the case for open source licensing.

There should be inter-changeability between sources of content that can be used so that outputs are not always dependent on specific pieces of content. However, there will still be content developed with the tools that will have its own input and output IPR. It may also be that using the tool has implications for the IPR in the content (e.g. the purpose of the tools is to mash content). Here the IP 'legality' of the business model around ownership of the 'mashed up' content will need to be considered.

Case study: Open and Hybrid Publishing

There are some pilot projects where the 'protected space' strategy is of less relevance. The Open and Hybrid Publishing pilot, for example, aims to move away from the idea of individual or defined group ownership of products towards more undefined, collective ownership models whereby the whole participating community of co-creators and users make further use of the content and share it without any restrictions. For the hackathon on this topic, participants will be made aware that they should only source the materials they use from the public domain or through open licence searches, and they should understand that their own contributions will be available for equally unrestricted use and re-use. Business modelling may proceed from strategies other than licensing tools and content without depending on underlying copyright, or it could still depend on copyright, be open, and make money. The precise strategies will be chosen prior to incubation and will form part of the proposed business model. These will be described in the second iteration of this deliverable.

5.2 WHAT STRATEGIES ARE AVAILABLE FOR DEALING WITH IP?

5.2.1 Closed/proprietary strategy

Probably the most common way of dealing with IP is through a closed strategy in terms of which the exclusive rights granted by copyright to the author/owner are licensed or assigned by the owner to third parties in return for valuable consideration. The rights granted by copyright can all be licensed to the same person, or they can be carved up in many different ways. For instance, the right to make a work available on the internet can be granted to one party, and the right to publish the work in hard copy form can be granted to someone else. The rights may also be granted for limited periods of time after which the licence would expire.

The types of licences that can be granted are:

- Exclusive: this means that an exclusive licence is granted to a third party to the exclusion of everyone else including the copyright owner
- Non-exclusive licence: this means that the copyright owner can grant a licence for the same rights to other people
- Sole licence: this means that no one else can use the licensed work except the licensee and the copyright owner

5.2.2 *Open strategy*

Many works and tools are now made available through an open licensing strategy. Here the works are licensed in such a way that the copyright is kept open for all to use. Copyright remains essential as the rights granted to the user are based on copyright – and copyright is used to keep the content and tools open. Some obligations attach to open licensing: for instance the obligation to attribute the author if a CC-BY licence is used. See in particular the information in section 4 on the benefits of choosing ‘open’ and sections 8.2 and 8.3 on the licences available when pursuing an open strategy.

5.2.3 *Benefit sharing strategy*

Under a benefit sharing strategy, the IP could be held by one person or organisation, (similar to a trust), and all of those who have contributed could share in any benefit that arises from exploitation of the IP (e.g. if royalties are generated). Holding all of the IP in one place makes management easy and avoids difficult discussions around who put in how much copyright effort to the work. Rather than royalties then being shared among individual contributors, a variation might be to channel any financial return into more innovation (e.g. running more hackathons).

For an example of an IP policy developed based around benefit sharing, see <http://www.designinaction.com/news/designing-flexible-ip-policy/>

5.3 HOW SHOULD THE IP DEVELOPED BY THE PILOTS BE DEALT WITH?

Taking into account the possible strategies noted above, how might the pilots deal with the IP that arises during the course of their work in the tools and the content that they work with? What is needed is a clear strategy from the outset so that all involved in the pilot are clear as to what is expected of and from them.

The pilots are being developed using public money and in the DoW there is the statement that IP developed by the pilots in E-Space should be made available on an open source basis. However, should any of the work done by the pilots be chosen for further development in incubation, then a revenue stream could arise from exploiting the IP. In these circumstances the organisers of the pilots and those involved in the pilots may prefer a benefit sharing strategy whereby any monies arising from exploitation are used for the benefit of future innovative activity. If this second avenue were chosen it would, like the protected space, be a deviation from the DoW and would therefore require agreement. Account must also be taken of the IP terms attached to any tools or content used by the pilots as these might carry their own requirements as regards new IP arising during the pilot.

Recommendation

Prior to the commencement of the pilot we would recommend that the pilot organisers agree with those involved in the pilots how the IP arising during the course of the pilots is to be owned and exploited. This should be in keeping with the rules relating to intellectual property, publicity and confidentiality outlined in the Grant Agreements.

The two suggested strategies are:

Open source

Or

Benefit sharing

In each case a brief agreement will suffice. This can be oral although a written agreement would help to avoid any misunderstandings. Subject to the requirements of IP licences in existing tools and content suggested wording:

Name of Pilot

I agree that any IP arising from my input to the work of the pilot from xxx 2014 to xxx 2015 run under the auspices of E-Space will be:

Made available on an openly licenced basis/held by xxx with any revenue arising to be held and used for future innovative development in the field of (here insert the field of work of the pilot) [Delete as appropriate]

Signed by individual creating IP

Date

Any allocation of IP will of course be in line with the Articles II.12-16 of the Grant Agreement that has been acceded to by all project partners.

5.4 WHAT STRATEGIES ARE AVAILABLE FOR DEALING WITH IP ARISING IN THE HACKATHONS?

Those who run the hackathons, should be sensitive to what the participants might think should be done with their IP, that is, the IP attached to the hackathon attendees that they create during the course of the hackathon. While there seems to be an open culture that has developed around hackathons, where the results are made available through an open strategy, as the output of these hackathons may end up earning the IP owners a financial return, thought might be given to whether a benefit sharing strategy might be preferred with any return going to the hackathon attendees or to support other projects. As with the pilots, account does have to be taken of the IP terms of any tools made available to the hackathon attendees as these may carry their own requirements as regards IP rights arising during the hackathon.

Case Study: TV pilot

For the TV pilot, the platform/app will be provided for the hackathons on an open source basis. Participants need to be aware of this and understand the implications of then building their own work on top, which would also need to be open source. Those opting to use the provided open source platform may make this decision early, possibly without much consideration, and in such cases, the incubation and business modelling process may need to unpick the work undertaken during the hackathon to determine where any IP lies.

Where the organisers of the hackathons are free to choose the IP strategy for the hackathons, then a similar agreement could be proposed as has been recommended for the pilots. On the one hand the open and sharing ethos common in hackathons would point towards licensing any IP arising during the course of the hackathon on an open source basis. On the other hand, because there may ultimately be revenue streams that arise from exploitation of the IP,

hackathon attendees may prefer that this be directed e.g. towards the running of more hackathon events in the future.

Recommendation

Prior to the commencement of the hackathon we would recommend that the hackathon organisers agree with those involved in the hackathon (including both hackathon attendees and pilot member participants) how the IP arising during the course of the hackathon is to be owned and exploited.

Subject to the requirements of IP licences in existing tools and content, the two suggested strategies are:

Open source

or

Benefit sharing

In each case a brief agreement will suffice. This can be oral although a written agreement would help to avoid any misunderstandings. Suggested wording:

Name of Hackathon

I agree that any IP arising from my input to the Hackathon from xxx 2014 to xxx 2015 run under the auspices of E-Space will be:

Made available on an open source basis/held by xxx with any revenue arising to be held and used to run future hackathon events

Signed by individual creating IP

Date

5.5 MOVING BEYOND THE PROTECTED SPACE: COMING TO AN AGREEMENT ON IP FOR THE BUSINESS MODEL

As part of the business model developed by hackathon attendees to be considered by a panel of experts, as outlined above, there are a number of layers of IP that must be considered

- IP brought to the Pilot
- IP generated during the course of the Pilot
- IP brought to the hackathon
- IP generated during the course of the hackathon

In relation to the first and third point, as recommended above, as much open material as possible should be used – both tools and content. However there will be proprietary tools and content in relation to which negotiations over the IP will have to take place

In relation to the second and fourth point, as recommended above, the pilots and the hackathons will have agreed how this IP should be dealt with. If that is not the case, then negotiations will need to take place at this point as to the IP strategy to be pursued.

The idea is that if the business models brought to the table by user-creators at the workshops and hackathons are strong enough, protected tools and content providers will have the incentive to enter into an agreement for their content and tools to be used commercially.

For the types of licences that could be chosen, and the clauses to be found in a licence agreement see section 8.1.

6 RUNNING AND ATTENDING THE HACKATHON

6.1 FREQUENTLY ASKED QUESTIONS FOR HACKATHON ORGANISERS AND ATTENDEES

Q: How can I prevent the copyright protected content I provide for the hackathon from being used and re-used indiscriminately by the public?

The pilot projects will be demonstrated using the tools and content made available under the open and protected licences. These may be used in the hackathons, and hackathon attendees may bring their own tools and content to the hackathon. As with any other content and tools available on the Internet, any third party using the content beyond the terms of the licence would be acting both in breach of contract and infringing copyright. If the rights are infringed, then enforcement would take place in the same way as any other infringement of copyright on the internet. This would include the owner of the IP contacting internet service providers and asking them to remove offending material from their sites.

Content owners may like to consider fingerprinting images which could aid with detecting infringement.⁷⁶

For the hackathons, these will be held over a period of two to three days with an invited audience. The hackathons will, therefore, have some selection process but for the most part the invitation will be open since the idea is to get as many participants as possible. The space in which the innovation with the tools and content takes place will be protected in the sense that it will not be open to the general public beyond those who actually are registered to attend the hackathon. If the content and tools made available under the protected licences are to be used beyond the hackathon and go into incubation and business model development, then it is at this point that negotiations will have to take place with the owners of the copyright and an exploitation strategy developed.

The hackathon attendees may download tools and content onto hardware during the course of the hackathon. Some of these may have been made available under for the purposes of the hackathon only. Hackathon attendees should be asked to agree to delete all such content and tools at the end of the hackathon as a condition of participating in the hackathon. A simple agreement would help to evidence this.

Sample agreement

I, [here insert name] agree to delete all content and tools from my hardware that I download during the course of the hackathon held at [venue] on [date]. I understand that I may keep tools and content made available under open licences such as xxx (see sections 8.2 and 8.3).

Signed

Date

Q: Would it not be better simply to use public domain and other open content?

Open licences would mean that content and tools could be used in an unrestricted manner (subject to the requirements of for example CC-BY licence which requires attribution licence) and is the preferred strategy for the pilots and hackathon organisers (see also section 4 in this deliverable on open content espousing the benefits of 'open'). It is however appreciated that there is a range of both content and tools available that would be perfect to use to encourage innovation – but which the owners prefer to keep control over. To give both the pilots and the

⁷⁶ <https://realpython.com/blog/python/fingerprinting-images-for-near-duplicate-detection/>

hackathons the greatest opportunity to delve into the riches that our cultural heritage has to offer, to give the rights owners the opportunity to see the innovation that can emerge from these events, and to understand how the tools and content can be modelled for business, the solution is to use protected licences (licences which are available for use in the protected space only see section 5.1, pages 39-42) for the purposes of the E-Space pilots and hackathons where open licences are not possible.

This approach should not lead to something being produced in the pilot or hackathon that cannot then be re-used in the real world. As has been noted above, in section 5.1, before the tools or content leave the protected space, agreement would have to be reached over exploitation of the IP. In the second part of this deliverable we will narrate how those projects chosen for incubation and business modelling actually came to agreement in respect of the IP.

Q: Once I have presented my content and/or tools at a hackathon, have I not already lost my intellectual property?

Hackathon organisers and pilots need to remember that the tangible expressions of their ideas – the tools and the content – are protected by copyright, but that ideas themselves are not. While there is nothing to stop someone else being inspired by ideas, if the expression of those ideas (i.e. the tools and content) is copied, that then infringes the copyright in those works. The intellectual property is not lost. The owners of copyright, the organisers and hackathon attendees, need to agree on an IP strategy before the moving on to incubation and business modelling. (See section 5.2, pages 42-43 and section 5.5, page 45.)

There may be concern that hackathon attendees will become wary of bringing or presenting their best ideas to the hackathon out of fear of them being stolen. However, even though the ideas themselves cannot be protected, participants must be incentivised to take a worthwhile risk in sharing their best ideas because of the ‘prize’ of the incubation support offered by E-Space partner Remix, which will mean their ideas have a better chance of being commercially successful.

If it is felt that hackathon attendees are more likely to attend and share and develop ideas if they are comfortable that others will not usurp these without permission, then a simple confidentiality agreement between participants might give that comfort. This would be a brief document simply saying that information and ideas obtained during the hackathon would not be subsequently used other than by the person who brought them to the process. This would exclude any ideas or information that were included in a successful project that moved into incubation. The IP in those ideas and that information would be subject to the IP agreement negotiated for the hackathon. (See section 5.4, pages 44-45.)

Sample confidentiality agreement for a hackathon

During the course of the hackathon taking place at xxx on xxx under the auspices of E-Space it is understood that those attending the hackathon may provide certain information that must be kept confidential.

The confidential information may include the description of tools and content; technical and business information; ideas; trade secrets; literary works; computer programs; technical specifications among other information and ideas that may be used to develop content and tools during the hackathon or otherwise be used for innovative activity. Together called ‘Confidential Information’.

Excluded from Confidential Information is any confidential information that is selected to progress into incubation under the rules of the Hackathon. Where protected by IP, exploitation will be governed by the IP strategy chosen for the Hackathon.

Those attending the Hackathon agree not to disclose Confidential Information obtained from the discloser to anyone unless required to do so by law.

This agreement is the entire agreement between the parties concerning the disclosure of Confidential Information

This agreement will be governed by the laws of Belgium

I acknowledge that I have read and understand this agreement and accept the obligations set out in it

Participant at Hackathon:

Name (Print or Type):

Signature:

Date:

Q: Can we provide standard/low quality content for the hackathon to reduce the risk of infringement?

If content providers are concerned about making high quality content available such as high definition photographs for the pilots and hackathons, even within the protected space, the question must be whether low resolution content is sufficient for the purposes of experimentation. This is a question for the content owner and those at the hackathon who must ask what the risk will be, of opportunities being lost for the content owner, and indeed all parties, if the content is not of high quality.

Providing lower quality content is in contrast with the aim of having a protected space precisely to experiment with creative re-uses of high-quality content until the hackathon has ended. The hackathons and business model workshops are not putting a large emphasis on content specific applications. They are rather developing tools that allow for reuse of various media relating to various themes. High quality content is always preferable but the hope is that the more varied thematic datasets made available, are more likely to trigger inspiration.

Q: Who benefits from participating in the hackathon?

Participants engage in a hackathon for a variety of reasons usually unrelated to financial gain the outcomes of which are then made available on an 'open' basis (see section 5.4, pages 44-45). However, the hackathons in E-Space are being conducted with the explicit goal of the 'best' ideas being taken forwards to business modelling and incubation: for many, the 'prize' of the hackathon will be the opportunity to participate in this process of support. Will that change the dynamics of engagement? Will those participating want also to have a 'share' of the copyright that results from exploitation of the tools? Thinking about the copyright developed in the hackathon is important as the copyright will support the ultimate business modelling process. Any third party looking to invest in the final tools will want to know about the ownership of the copyright in the tools and/or content, depending what it is that is going to be monetised. How will the hackathon leaders deal with this?

Recommendation (see above section 5.4)

Prior to the commencement of the hackathon we would recommend that the hackathon organisers agree with those involved in the hackathon how the IP arising during the course of the hackathon is to be owned and exploited.

The two suggested strategies are:

Open source

or

Benefit sharing

In each case a brief agreement will suffice. This can be oral although a written agreement would help to avoid any misunderstandings. Suggested wording:

Name of Hackathon

I agree that any IP arising from my input to the Hackathon from xxx 2014 to xxx 2015 run under the auspices of E-Space will be:

Made available on an open source basis/held by xxx with any revenue arising to be held and used to run future hackathon events

Signed

Date

7 THE LEGAL, ETHICAL AND PRACICAL FRAMEWORKS – THINGS TO THINK ABOUT WHEN SOURCING AND MAKING AVAILABLE CONTENT

The purpose of this section is to give an overview of some of the recent legal developments that may impact on and be of some support to the pilots and hackathons during their work

7.1 NEW RULES ON PUBLIC SECTOR INFORMATION

The purpose of the rules on public sector information is to encourage the re-use of information generated by public institutions during the course of their public sector tasks.⁷⁷ The first European Directive was enacted in 2003. The second in 2013, the latest date for transposition into national laws is 18 July 2015. The purpose of the 2003 Directive was to remove barriers to the re-use of public sector information. A review in 2010 suggested that while progress had been made, barriers remained, hence the updating of the Directive. The purpose of this factsheet is to provide an overview of the new rules and how they might help pilots and hackathon attendees obtain content.

Q: Which institutions /organisations do the new rules cover?

A: Libraries, including university libraries, museums and archives – none of which were covered in the original Directive, and broadcasters.

Q: Why have the rules been extended to these institutions/organisations?

A: As stated in the Directive: These cultural heritage collections and related metadata are a potential base for digital content products and services and have a huge potential for innovative re-use in sectors such as learning and tourism. Wider possibilities for re-using public cultural material should, inter alia, allow Union companies to exploit its potential and contribute to economic growth and job creation.

Q: Which institutions/organisations do the new rules not cover?

A: Institutions/organisations such as orchestras, operas, ballets and theatres including the archives that are part of those establishments

Q: Why are these institutions/organisations not covered?

A: Because of their ‘performing arts’ specificity and since almost all of their material is covered by third-party intellectual property rights.⁷⁸

Q: What does re-use mean?

A: Re-use means a use of public sector information for any reason other than that for which it was originally produced. A request for re-use can be refused where the information has not already been re-used either by the institution/organisation or by a third party. For example, where digitised images are made available to a commercial body for re-use, then they must be made available to other commercial bodies for a similar purpose on equal terms. Exclusive licensing is not permitted except under exceptional circumstances. Exceptional circumstances would cover those instances where without any form of exclusivity the institution would not be able to carry out a digitisation project. Where a third party makes a substantial investment in a digitisation project then an exclusive arrangement is permitted for up to a maximum of 10 years.

⁷⁷ See <http://ec.europa.eu/digital-agenda/overview-2003-psi-directive> and <http://www.epsplatform.eu/category/keywords/psi-directive>

⁷⁸ This is the formal rationale. However, third party rights are already outside the scope of the directive so there is still a question as to why these organisations should be exempt.

Q: What does accessible information mean?

A: The re-use rules provide that all information that is accessible should be available for re-use. The presumption is that information will be accessible. Information will not however be accessible where there are other rules under national laws that would preclude its re-use. This would include copyright; data protection rules; confidentiality; national security among other national regimes.

Q: What are the rules on charging?

A: Charges should in principle be limited to marginal costs. However it is recognised that public sector bodies are often required to generate revenue to cover a substantial part of their costs relating to their public sector task or the costs of their collections. In which case above marginal cost can be charged but the level needs to be set according to objective, transparent and verifiable criteria and the total income from supplying and allowing re-use of documents should not exceed the cost of collection, production, reproduction and dissemination, together with a reasonable return on investment.

Q: What types of licences should be used by the public sector body?

A: The Directive exhorts public sector bodies to place as few restrictions on re-use as possible and encourages the use of open licences while at the same time recognising that some conditions might be appropriate such as attribution and notification of modification of the information.⁷⁹

Q: When will the rules come into force?

A: The rules are due to come into force in Member States by 18 July 2015 (implementation deadline)

Q: What does this mean for the pilots in E-Space?

A: The implementation deadline for the amended re-use rules is 18 July 2015, by which time pilots will have sourced most of their content. However, and for those jurisdictions which have not yet implemented the Directive, libraries, museums and archives will already be considering how their practices will need to change in response to the rules. Where the pilots negotiate directly with these institutions for sourcing content it would be worth asking how they will be making content available having regard to the rules, and whether those rules might apply to the content used for E-Space.

7.2 NEW RULES ON ORPHAN WORKS

The challenge around orphan works is one that permeates the cultural heritage sector and is one that has become particularly acute as a result of digitisation. The content of our cultural heritage is rich and vibrant. Copyright subsists in the content where the author died less than 70 years ago, but it is often very hard to find the owner of the copyright to ask for permission to re-use that content. The name may not be on the work or the owner may have died, and the ownership of the copyright passed to many heirs fragmenting ownership. To try and address this, the Orphan Works Directive came into force in 2014. As noted above in section 4.2.3 (pages 32-34), while its impact is likely to be limited, it might provide some help to E-Space participants.

Q: What is the Orphan Works Directive?

⁷⁹ A public sector body may choose not to impose a licence at all but rather place the work in the Public Domain by default (see e.g. Greece or Poland)

A: The orphan works directive (OWD) was to be implemented into the laws of Member States by 29 October 2014. As this is only very recent, it remains to be seen how useful it will be

Q: What is an orphan work?

A: An orphan work is one that is in copyright protection, but where none of its rights-holders can be identified or, where identified, cannot be found after a diligent search. If one of a number of rights-holders is located, then the work can be used even if the other rights-holders cannot be identified or located. If a rights-holder is located, the work is no longer considered an orphan work, even if the other rights-holders cannot be identified or located.

Q: What is a diligent search?

A: An Institution to whom the OWD applies can only decide that a work is orphan after a diligent search has been carried out in good faith and in respect of each work by consulting appropriate sources. Embedded works must undergo a diligent search because they are treated as separate works from the main work.

What is counted as an appropriate source is to be determined in each Member State in consultation with rights-holders and users. It is to include at least the sources listed in the Annex to the OWD. These sources include where appropriate to the work, legal deposit; library, film, audio heritage databases; databases of collecting societies; sources that integrate multiple databases and registries; ISSN.

The search must be carried out in the Member State of first publication and before the work is used.

Records must be kept of the diligent search and the results reported to the appropriate government agency along with the uses made of the orphan work and if the work ceases to be an orphan. This information must be made available in a publicly accessible online database managed by the Office for Harmonisation in the Internal Market. The database can be found here <https://oami.europa.eu/orphanworks/>

Q: To which institutions does the OWD apply?

A: The OWD applies to publicly accessible libraries; educational establishments; museums; archives; film or audio heritage institutions; public-service broadcasting organisations (which have some special arrangements in the OWD) established in Member States. The OWD applies to certain uses of orphan works by these Institutions in order to achieve their public interest missions.

Q: What is within the Institutions' public interest mission?

A: The OWD provides that a public interest mission can be fulfilled in particular through the preservation of, the restoration of, and the provision of cultural and educational access to their collections including digital collections.

Q: What works does the OWD apply to?

A: The OWD applies to the following categories of works:

- Published written works first published in a Member State;
- Films, audiovisual works and sound recordings;
- Unpublished works that have been publicly available with the consent of the rights-holders provided that it is reasonable to assume that the rights-holders would not oppose the use of the work according to the permitted uses of the work.

In each case the work must be one held in an Institution to which the OWD applies.

Q: What uses can be made of orphan works?

A: There are a number of permitted uses of orphan works:

- Making the work available to the public
- Reproducing the work for the purposes of digitisation, making available, indexing, cataloguing, preservation and restoration.

These uses must be in accordance with the public interest missions of the Institution invoking the OWD. Institutions can generate revenue, but only for cost recovery purposes.

Q: What about remuneration?

A: Member States are required to provide that a fair compensation is due to any rights-holder who appears and puts an end to the orphan status of the work. The circumstances and level of compensation are to be decided by the Member State in which the Institution using the orphan work is established.

The non-commercial nature of the use, the public interest mission of the institution and the possible harm to the rights-holder are to be taken into account in determining the amount.

Q: What is the implication of mutual orphan work recognition?

A: If a work is recognised as orphan in one Member State, then it is recognised as orphan in all Member States and may be used accordingly

Q: (When) does a work cease to be an orphan work?

A: If the rights-holder appears then the work will no longer be orphaned. Users can only continue using the work if the rights-holder consents.

7.3 RISK MANAGEMENT: NTD POLICY AND CLAUSES

7.3.1 Notice and Take Down Policy (NTD policy)

A NTD policy can be used as part of a risk management exercise by organisations when deciding what strategy to adopt when making works available on their websites.

There may be a number of reasons for adopting an NTD policy. These include:

- It is often not possible to find the owners of copyright protected works even after a lengthy search
- It may not be obvious whether a particular work is in the public domain or not (because the author died more than 70/50 years ago)
- On a risk/reward analysis the Institution may decide that it is too costly to carry out exhaustive searches for owners.

In these circumstances, and because it is best practice as part of a risk management exercise, the organisation can adopt a NTD policy. Within Europe this would also be in accordance with the Electronic Commerce (EC Directive) Regulations 2002,⁸⁰ Clauses 17-19 for those countries subject to this Directive.

The NTD policy should be published on the organisations' website and provide clear instructions for users on how to serve notice if it is thought that copyright infringement has taken place. These instructions should include contact details for the person responsible for administering the system, and a template that the user can complete. If a complaint is received, then it should be dealt with expeditiously. The longer the organisation has notice of a

⁸⁰

See

<http://www.legislation.gov.uk/uksi/2002/2013/contents/made>

or

http://www.legislation.gov.uk/uksi/2002/2013/pdfs/uksi_20022013_en.pdf

potential infringement but does not act on it, then the more likely it is to be found liable if it is eventually decided that the presence of the work infringes copyright.

7.3.2 Example of a takedown notice to appear on website

If you are the owner of the copyright in any of the works on this website and you do not agree to your works being appearing on the website, please contact us with the information requested below:

- Your contact details
- Enough information for us to identify the relevant work(s)
- What your complaint is and why you are notifying us
- Confirmation that you are the owner of the copyright in the work or are authorised by the owner to contact us
- When we receive your complaint, we will acknowledge receipt by email
- We will investigate the complaint and depending on our findings may remove the relevant works
- Your complaint can be sent electronically to [here insert email address]

7.3.3 Insurance

Consider taking out insurance if the likelihood of being sued for infringement is very great or the stakes very high.

In terms of getting insurance against being sued for copyright infringement in the areas we are looking at, Companies such as COBRA Legal and IP (www.ip-insurance.com) arrange bespoke IP insurance in addition to more standard products.⁸¹ This kind of company can offer cover for copyright infringement which would include defence costs and any damages awards. They can sometimes include cover which would pay for pursuit and enforcement costs as well, should the content providers wish to sue a third party for infringement. On the defence side they can arrange for limits of indemnity for combined defence costs and damages in excess of £10m, if required. Specialist IP insurance intermediaries (brokers) arrange cover with the different participating insurers that underwrite these types of risk, and have exclusive schemes which they run for insurers. They carry out the initial risk assessments themselves and work with insurers such as Liberty (a large US insurer) and CFC (an underwriting agency which acts for a consortium of Lloyd's of London Syndicates), though they can cover just defence costs more cheaply under exclusive schemes with global insurers such as QBE Europe. They find the most suitable cover at the most competitive premium and are prepared to change cover to assist clients, offering different limits and excesses. Sometimes they arrange cover with several underwriters when one cannot offer everything required. These are "broker only" underwriters, and their FCA authorisations do not allow them to deal directly with clients or the public.

7.4 RISK MANAGEMENT GUIDELINES FOR THE USE OF TEXT, IMAGES, AND AUDIO-VISUAL CONTENT ONLINE⁸²

The following guidelines provide a step by step approach to managing risk when re-using digital cultural content online. They outline all the necessary considerations that must be taken into account with regard to intellectual property rights.

⁸¹ See the article on the IPO website: <http://www.ipo.gov.uk/news/newsletters/ipinsight/ipinsight-201308/ipinsight-201308-3.htm>.

⁸² This tool is adapted from the text of "A (Very Brief) Risk Management Guide for Displaying Images on Europeana", which arose out of discussions at the EuropeanaPhotography IPR workshop in Paris, November 14 & 15, 2003 and is contained within the meeting minutes.

- It is important to comply with the law in your own jurisdiction.
- Although online publication reaches an international audience and multiple legal systems apply, it is likely that a potential infringement by an image provider will be challenged on the territory of the provider first. If you are in a civil law country, you should consider the moral rights of the author as well as copyright issues. If there are no rights attached to a particular medium of creativity such as architecture or fashion design in your country, permissions for these may not be required.
- Try to obtain permissions from as many third parties as possible prior to publishing the content online.
- Participants gathering content from a variety of sources should obtain from those sources permissions or licences similar to the ones they intend to grant the online platform they hope to use for publishing the material. For example, if they wish to publish images on Europeana or within other re-usable datasets such as Flickr Commons, Wikipedia, Open Cultuur Data and so forth, they should seek images that are re-usable under similarly open licences. It is the policy of Europeana that information obtained from the public domain should remain in the public domain.
- Focus on the author's copyright issues, such as their moral rights (paternity, integrity of the work) if appropriate on your territory.
- Depending on the date and type of content used, and the mode of use (editorial or commercial), third party rights are more or less likely to be an issue. An exception or limitation may apply where the content is used for educational, research, journalistic, purposes. Copyright for older content may also have expired if enough time has elapsed since the author's death (generally 70 years after the death of the author).
- Legal issues should be considered when selecting material.
- Always select the content with the greatest historical and informational value based on the project's goals, as this may be taken into consideration in case of a legal dispute. For example, an image showing a wide view of the 1900 world exhibition in Paris (including people and various objects exhibited) is preferable to an individual view of a work of art displayed in the same exhibition.
- Orphan works may be a significant portion of the content displayed and due diligence should be applied in searching for copyright holders (see the FAQ on the Orphan Works Directive).
- While orphan works legislation is now being implemented in the EU, it will take a time for it to bed down. Generally participants should assess their appetite to risk and where applicable undertake and document a diligent search (as defined in the Orphan Works Directive - see FAQ) prior to publishing any such work. Such a search should include posting a notice on their own website to encourage copyright holders to come forward and should include a notice and take down policy
- When you do not have an author's name, try to determine whether the content is in the public domain. Using your country's demographic tables, it is possible to calculate the statistical chances that a work is in the public domain based on its real or estimated date. In France for example, works until 1895 are likely to be in the public domain as the average life expectancy of a hypothetical 20 year old author is less than 47 years. Their statistical date of death would be prior to 1942. This approach does not give absolute certainty but, when followed consistently, might be useful in challenging an accusation of infringement.
- Anticipate the economic consequences of possible infringements.
- In keeping with the spirit of the Orphan Works directive, but also as good business practice, participants could set up a reserve fund to face proved requests for compensation from copyright holders. This can take the form of a sum kept in escrow, a provision in the company accounts or any other form of financial reserve, with an

amount commensurate to the level of risk perceived, especially with regard to anticipated uses of the content (e.g. whether it will be licensed for editorial or commercial use).

7.5 TWELVE POINT CODE OF ETHICS FOR THE SOURCING AND USE OF CONTENT VIA EUROPEANA

The following code of ethics may be distributed at hackathon events. It is not an official statement from the Europeana Foundation but has been developed for E-Space within WP3.

1. Develop your unique vision and presentation while remaining accurate and comprehensive in the representation of Europeana.
2. Resist opportunities to pass off copies as originals, for example, in the form of images taken of copies of original works.
3. Editors should maintain the integrity of the content and context. Do not, for example, manipulate images or add or alter sound in any way that could mislead viewers or misrepresent subjects.
4. Provide the full context when sharing, presenting and using Europeana to avoid stereotyping individuals and groups. Recognise and work to prevent your own biases appearing in the content provided for e.g. an app or hackathon, and in any works produced.
5. Seek a diversity of viewpoints, and work to include unpopular or unnoticed points of view in the content provided and used.
6. Treat all subjects of content sourced via Europeana with respect and dignity. Give special consideration to vulnerable subjects such as victims of crime or tragedy. Only share images, videos or other content that reveals private moments of grief, humiliation or other situations of vulnerability, when users have an overriding and justifiable need to see them.
7. With the exception of fees paid to individual artists and other third party content providers to clear copyright, do not pay sources or subjects or reward them materially for information or participation.
8. Do not accept gifts, favours, or compensation from those who might seek to influence the presentation, use and sharing of Europeana for political purposes.
9. Do not intentionally sabotage the efforts of other content providers.
10. Strive for complete and unrestricted access to content as far as possible, providing innovative alternatives to shallow or rushed user opportunities, while respecting the rights of authors, creators and owners of the content provided.
11. When sharing, using and presenting Europeana online and elsewhere, do not intentionally contribute to, alter, or seek to influence political events.
12. While enabling the exploitation of Europeana content by the creative industries, avoid political, civic and business involvements that compromise or give the appearance of compromising the objectives of broadening and enhancing user access and experience of Europeana, and providing content for exploitation by SMEs and start-ups.

7.6 FAQs THAT HAVE ARISEN DURING THE COURSE OF THE PROJECT SO FAR

Q: Can content (and tools that have integrated non-interchangeable content) be sold at a profit if that content includes works licensed under a CC-BY-NC licence?

The CC-BY-NC license does not allow the commercial use of content. However, the content and tools may be sold in a manner which covers costs only, since this could be justified as non-commercial use. There is also the possibility that an additional licence is obtained. This is the point of the CC+ licenses.

Q: What implications do images within text bring to the availability of the content and tools for re-use?

Images within text will generally be licensed separately. While the text may belong to the author, the ownership of the images may well lie elsewhere. If permissions cannot be obtained because of difficulties finding the authors of the images, a risk assessment exercise must be carried out to determine the likelihood that the images in question have associated rights. Articles may have to be published with gaps unless the publisher is willing to take the risk of using the material without permission. For online articles, having a suitable notice and take down policy in place makes this easier. Historic images are less likely to be in copyright since the subject of the image will most likely have an author long deceased. However, copyright may subsist in the digitisation of an image.

Q: Should full technical details of the tools being developed for E-Space be included in the deliverables for circulation among the consortium if application is being made for a patent?

Technical details should not be disclosed prior to obtaining a patent as this would prevent the patent from being issued: the novelty element necessary for obtaining a patent would be destroyed.

8 LICENCES FOR THE PILOTS AND HACKATHONS

8.1 LICENSING FACTSHEET

8.1.1 *Clauses in a copyright licensing agreement*

When parties enter into bespoke licensing arrangements, the agreements will look different although they will generally have similar clauses. If you are thinking about obtaining specific agreement for the use of content, then think in particular about these clauses.

- Parties to the agreement: the licensor and the licensee
- Dates: the date of commencement of the agreement and the duration.
- Description: a description of the copyright being licensed and for what purposes
- Consideration (if any): the consideration that is to be paid by the licence whether royalties a lump sum; payment made for particular milestones
- Territorial reach: the territory covered by the licence
- Exclusivity: whether the licence is sole exclusive or non-exclusive

A more complicated agreement will contain other clauses that may include the following:

- Recitals to the agreement: these will contain background information on what the parties are trying to achieve with the agreement and may also contain information on any previous agreements between the parties and whether they related to the current agreement.
- Definitions: it is common to have a section containing definitions of specific terms in the agreement.
- Confidentiality: this will detail what information should remain confidential to the parties and should not be disclosed.
- Warranties: it is common to have a warranty clause that declares that the parties have the capacity to enter into the agreement
- Indemnities: this clause will contain statements on limitation of liability of each party in the event of certain occurrences
- Dispute resolution: this will contain information on how disputes should be dealt with – for instance if a third party should be appointed to adjudicate in the event of a dispute
- Law and Jurisdiction: this will subject the agreement to a governing law and jurisdiction of a specific court.

8.1.2 *Internet resources*

There are many internet resources looking at the content of IP licences. Some useful ones include the following:

- **An Anatomy of a Licensing Agreement:** presentation made at the WIPO-CSIR Workshop on Licensing and Technology Transfer; New Delhi; India, July 4-8, 2005. Available at <file://isad.isadroot.ex.ac.uk/UOE/User/Desktop/url.htm>
- Dave Washburn, Vice President UTRF, presents on the **basic terms of a university technology license agreement** and the foundation for inclusion of those terms and conditions. He explains the relative importance of each term, including which might be negotiable or non-negotiable, and provides some basic strategies for mitigating concerns. Available at <http://vimeo.com/51019545>
- **Example of a US copyright ownership** and licence agreement. The clauses could easily be adapted for jurisdictions elsewhere. Available at <https://www.docracy.com/8770/copyright-ownership-and-license-agreement>

- The Intellectual Property Office in the UK has a useful licensing booklet that contains a **checklist of what to think about when licensing IP**. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/320811/licensingbooklet.pdf

8.2 CC LICENCE CHOOSER

“Creative Commons licenses are a useful tool for opening up collections. From the Public Domain Mark and CC0 to the open culture approved licenses of CC BY and CC BY-SA, making the legal status of collections clear is an important part of promoting innovation with heritage.”⁸³

The basics of Creative Commons licenses are four license elements:

- Attribution – credit the author
- Non-commercial – no commercial use allowed
- No Derivative Works – no remixing of the content
- ShareAlike – share only if you let others remix

These can be used in various combinations. If a content provider intends on making a picture of an artwork from their collection available on the web, not for commercial purposes and having the institution’s name mentioned, they could choose a CC-BY-NC license element combination. If they decide to add to the corpus of open available content, they can use a CC-BY-SA variant which credits the author, but informs anyone using the content that if they release their new work which builds upon it, it should also bear a Share-Alike clause. This way the openness is passed downstream.

The benefits of the CC mechanism are manifold. The standardised nature of the licenses makes them compatible and interoperable. They are acknowledged in many countries and available in a multitude of languages. They are both understandable by humans and computers, due to a machine-readable license code that can be integrated into content metadata.

Use of CC is already a widespread practice. Browsing <http://search.creativecommons.org> will guide the reader through a number of search portals or content hubs that hold CC-licensed content. GLAM-content is also widely available, even under the more/most open variants of the license. However, before adding to this content, it is important to think about what it is that should be licensed, and for what purposes. It is necessary to determine whether the content can be put out under a CC-license, for example, whether the necessary rights have been obtained to do so. It is necessary to decide who will be the intended user of the material.

One of the best ways to start is to use material that does not require rights clearance or for which the rights are easy to clear.⁸⁴ That might for example be any Public Domain materials held, content with easy-to-find permissions, and work that can be released because it is under the institution’s own copyright.

8.2.1 Public domain

Dedicating a work to the public domain, or clearly marking it as being in the public domain means that a user can do anything with it, without having to ask for any kind of permission. CC has two tools that allow for this:⁸⁵

⁸³ See <https://www.kl.nl/nieuws/creative-commons-glam-booksprint/>

⁸⁴ See presentation by Jessica Coates, Global Network Manager, Creative Commons during the US OpenGLAM Launch (March 2013), available at <http://www.slideshare.net/Jessicacoates/open-access-glam>

⁸⁵ This is not a dedication. It is a mark. It only marks something that already is in the PD. The dedication is a form of a total waiver, bringing something that is not in the PD into the PD.

- The Public Domain Mark⁸⁶ : when something is labelled with the PD mark in Europeana, it will also be linked to the Europeana Usage Guidelines for public domain works.⁸⁷ These are goodwill-based guidelines that ask to give credit where credit is due, or to show respect for the original work. Although use of PD content is absolutely open, these guidelines address some points that cultural heritage institutions may have concerns about.
- The CC0-license (or tool)⁸⁸: if you are entitled as an institution to waive all rights in a digital object, you could apply a CC0 waiver to the material. By applying this waiver, all rights in the content are waived and – like public domain content - can be used by anyone without any restrictions. CC0 can only be applied with the authority of the rights holder.

If works held in a collection are in the public domain because of when they were created, a PD Mark can be used to release digital reproductions of them. The analogy – what is in the PD in the analogue world should stay there in the digital one – is not followed everywhere. However, both Communia⁸⁹ and Europeana⁹⁰ have been advocates for holding this openness in both worlds.

8.2.2 *Easy permissions*

Before applying a CC-license to a work it is necessary to obtain the necessary rights to do so. The artist who is author of the work, for example, a picture to be digitised by photographing, will need to be contacted, and their permission sought and obtained to allow this use of the picture, and the sharing of the photograph online under a CC license. Sometimes, making direct contact is all that is needed. Explaining the plans for the use of the work, and the reasons for an intention to open up the reproduction, may be all that is necessary to persuade some rights holders.

8.2.3 *Your own institution*

Often materials to be licensed are produced within the employment of an institution. If an employee is a photographer digitising sculptures, there needs to be a clause in her employment contract allowing the employer to license the pictures in any way they want. Other departments might hold valuable information that can be freely licensed, for example, an educational department's school package, curators' articles, or the institutions own website contents. It would be easy to obtain the necessary rights for these, and using them would be the simplest way of making available open materials.

Once the whole picture of intended re-use is clear, an institution is ready to choose the right license for their purposes. Should they wish to be visible on Wikipedia, content must be uploaded to the Wikimedia repository - and in order to do so, it should be licensed as CC-BY or CC-BY-SA. If an institution would rather ensure that only non-commercial use can be made of their content, they can choose a CC-BY-NC license. If many of the works held are in the public domain, it would be best to contribute to the shared 'commons' heritage and dedicate the digital reproductions of the works to the public domain.

Creative Commons provides a simple license chooser on its website⁹¹ :

⁸⁶ See <http://creativecommons.org/publicdomain/mark/1.0/>

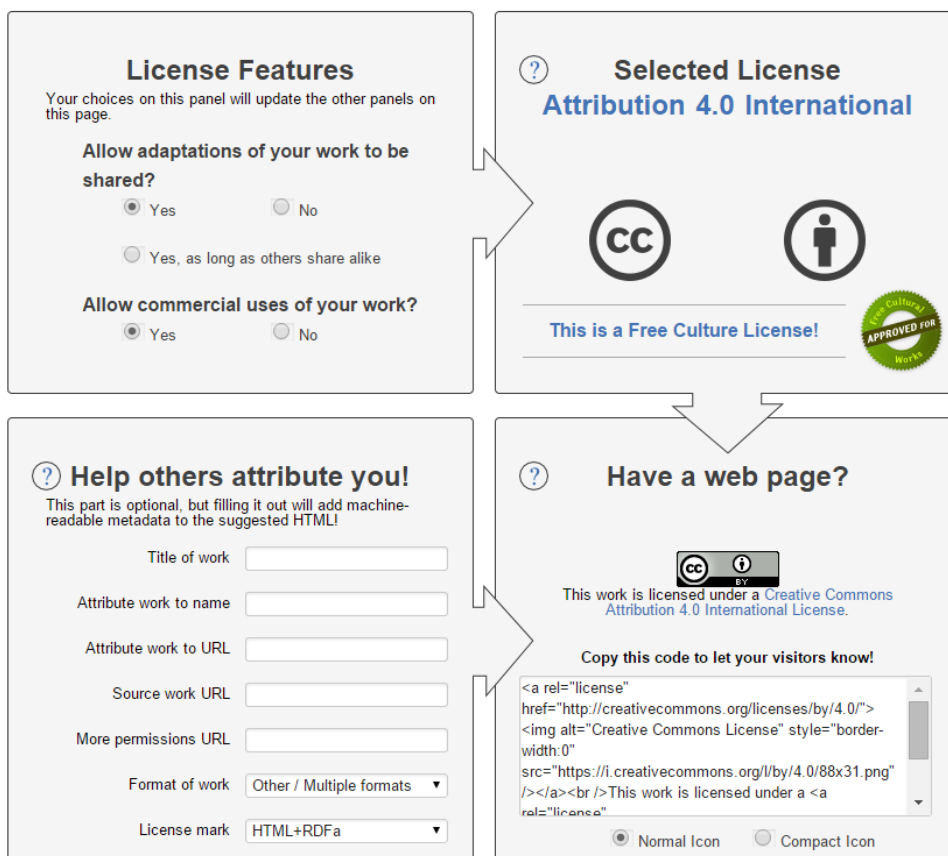
⁸⁷ See in full on <http://www.europeana.eu/portal/rights/pd-usage-guide.html>

⁸⁸ See <http://creativecommons.org/publicdomain/zero/1.0/>

⁸⁹ See <http://www.communia-association.org/2012/12/05/communia-positive-agenda-for-the-public-domain/>

⁹⁰ See <http://pro.europeana.eu/pro-blog/-/blogs/2235116>

⁹¹ Selection tool available at <http://creativecommons.org/choose/>



CC-license selection wizard <https://creativecommons.org/choose/>

Based on some simple questions, this tool helps detect the licence elements that matter to individual content holders. Additionally it presents the machine-readable code that can be used in the material’s metadata or on a website. Another useful tool will be the website www.cctoolkits.com, which is currently available in a beta version. The site looks into the wide CC expert community to gather useful media that explain CC in various contexts. The platform is an attempt to aggregate, curate, and remix content in a way that ensures all the rights are understandable to everyone.⁹²

8.3 SOFTWARE OPEN SOURCE LICENCE CHOOSER

When content has already been opened up and an institution is considering making it available through some kind of software application, it will be necessary to think about the license requirements for this application. There have been examples of museums that let an external developer create an app for one of their exhibitions, forgetting to discuss with the developer, what kind of license this app could be used and re-used under in the future. The consequence of not discussing this might be that such an institution is stuck with a product they are not allowed to modify, with a source code that they cannot access, and are thus locked in by the supplier.

If considerable efforts have already been undertaken to make the content easily accessible, similar measure could be taken with the software ordered. Institutions may be concerned that developers will fear losing business opportunities, or be concerned that their developer name

⁹² See also <http://cctoolkits.com/about/>

will no longer be associated with what they have created. However, such problems can be solved by attributing the right kind of license to software.

Initially it is important to discuss whether or not your supplier is willing to release the ordered piece of software as an open source product. This means that the created product can be freely used, changed, and shared (in modified or unmodified form) by anyone. Open source software is often made by many people, and distributed under licenses that comply with the Open Source Definition.⁹³ One of the aspects of this definition, is that the actual product must include source code, and must allow distribution in source code as well as compiled (complete, e.g. the actual app) form. Where some form of a product is not distributed with source code, there must be a well-publicized means of obtaining the source code for no more than a reasonable reproduction cost preferably, downloading via the Internet without charge (thus, the code could be requested from the supplier via e-mail or an online form).

What this enables the subcontracting institution to do, if they have IT-skilled staff, is to enhance the product without having to pay an extra fee to actually obtain the source code. This way, in the case of a museum, for example, it could re-use the app with a bit of customisation for another exhibition, or a whole other purpose. With access to the code, anything is possible. Releasing it as open could also bring on other effects; people with an interest in the program might think of nice add-ons or enhancements. They might even contribute to the software in a way that the content holder had previously imagined. This approach may, therefore, mean work and time saved, a better product, and again, one which is shareable with a community that is much broader than the original institution alone.

If a supplier agrees with releasing the tendered program as open source software, then as with publishing the content, she will have to choose an appropriate open source license for her product. Two main strands can be identified:

- Permissive license types: these only describe minimal requirements about how the software can be redistributed. Such licenses therefore make no guarantee that future generations of the software will remain free: if the intention is to re-use this licensed code in another programme and make that product proprietary, this can be freely undertaken. Examples of permissive free software licences are the MIT License and the BSD licenses.
- Copyleft license types: these are more 'share-alike' in nature. When a program is released that is based on or uses copyleft licensed software, it will have to be made available on terms no more restrictive than the copyleft license of the software originally used. It will thus be harder to make a product proprietary, if a copyleft component has been used. Another difference between permissive and copyleft, is that when the software is being redistributed (either modified or unmodified), permissive licences permit the redistributor to restrict access to the modified source code, while copyleft licenses do not allow this restriction. An example of a copyleft licence is the GNU General Public License.⁹⁴

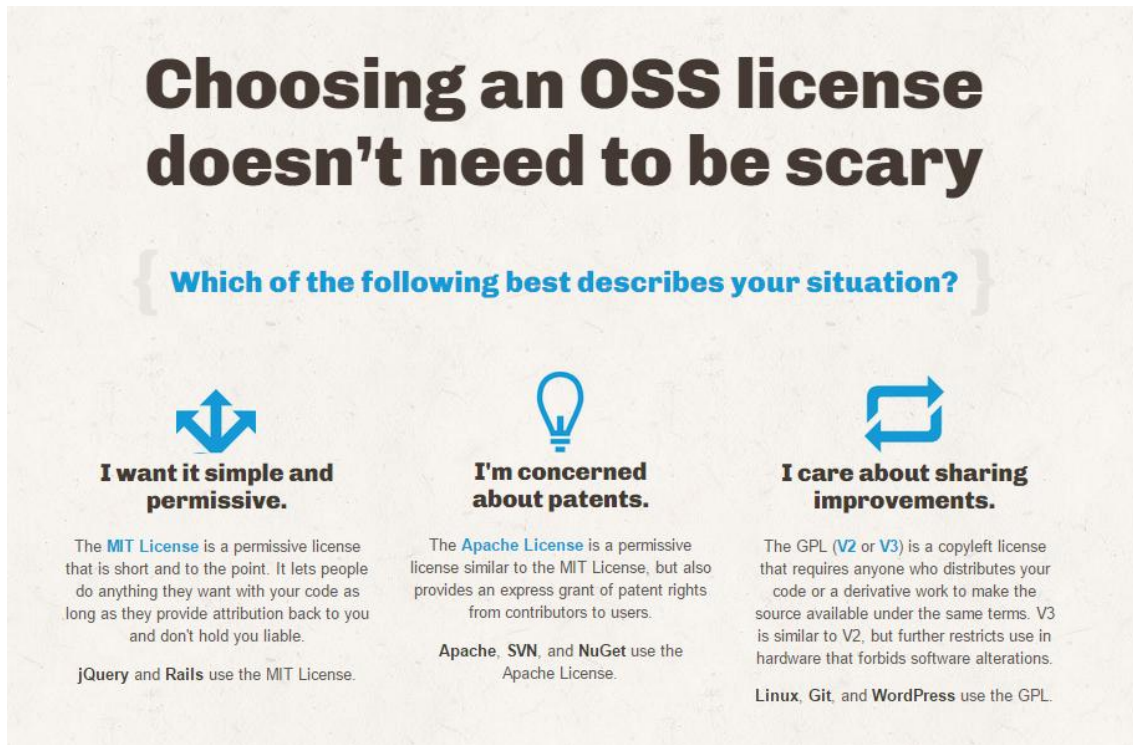
Between all available licenses in each category there are many options of choice. Some guidance is definitely useful. GitHub, the biggest code repository, also understood this: "It's easy to get caught up in code. Sharing your code isn't everything, though: it's also important to tell people how they can use that code."⁹⁵ They created ChooseALicense.com to help

⁹³ See The Open Source Initiative for this definition of Open Source Software: <http://opensource.org/>

⁹⁴ More info on the different types of licensing can be found on http://en.wikipedia.org/wiki/Permissive_free_software_license

⁹⁵ See <https://github.com/blog/1530-choosing-an-open-source-license>

developers make an informed choice. The website shows a breakdown of what is required, what is permitted, and what is forbidden for each license.⁹⁶



Choosing an OSS license doesn't need to be scary

Which of the following best describes your situation?

- I want it simple and permissive.**
The **MIT License** is a permissive license that is short and to the point. It lets people do anything they want with your code as long as they provide attribution back to you and don't hold you liable.
jQuery and Rails use the MIT License.
- I'm concerned about patents.**
The **Apache License** is a permissive license similar to the MIT License, but also provides an express grant of patent rights from contributors to users.
Apache, SVN, and NuGet use the Apache License.
- I care about sharing improvements.**
The **GPL (V2 or V3)** is a copyleft license that requires anyone who distributes your code or a derivative work to make the source available under the same terms. V3 is similar to V2, but further restricts use in hardware that forbids software alterations.
Linux, Git, and WordPress use the GPL.

Most of the open source software released by GitHub has been placed under the MIT license. It is a popular permissive license for a number of reasons, among these:⁹⁷

- Its license text is short: anyone can read and understand exactly what it means without needing a legal background.
- Enough protection is offered to be relatively sure there will not be any claims if something goes wrong when another developer uses your code (or part).

So although OS licenses do allow for a great deal of freedom, they are not the same as releasing a work into the public domain. Permissive licences often do stipulate some limited requirements, such as that the original authors must be credited (attribution). If a work is truly in the public domain, this is usually not legally required. Attribution may still be considered an ethical requirement. Continued proper attribution is also one of the things that MIT licenses also require – just like a CC-BY.

⁹⁶ For content licensing, Creative Commons provides a similar simple wizard to help content authors select an appropriate CC license: <http://creativecommons.org/choose>

⁹⁷ See <http://tom.preston-werner.com/2011/11/22/open-source-everything.html>


```
/*!
 * Copyright 2014 Drifty Co.
 * http://drifty.com/
 *
 * Ionic, v0.9.23-alpha
 * A powerful HTML5 mobile app framework.
 * http://ionicframework.com/
 *
 * By @maxlynch, @helloimben, @adambradley <3
 *
 * Licensed under the MIT license. Please see LICENSE for more information.
 */;

// Create namespaces
window.ionic = {
  controllers: {},
  views: {},
  version: '0.9.23-alpha'
};

(function(ionic) {

  var bezierCoord = function (x,y) {
    if(!x) x=0;
    if(!y) y=0;
    return {x: x, y: y};
  };

  function B1(t) { return t*t*t; }
  function B2(t) { return 3*t*t*(1-t); }
  function B3(t) { return 3*t*(1-t)*(1-t); }
  function B4(t) { return (1-t)*(1-t)*(1-t); }


```

Example of copyright info in MIT-licensed code, see top

Anyone building upon this programme should keep the copyright information intact and add its credit line. Other than it being a license requirement, it is also a matter of courtesy and ethics. This way, even though the code has been opened up for anyone to re-use, they will still see who made it or contributed to it.

In recent years, the European Commission have been enthusiastic in the support of open licensing. They released the EUPL or European Union Public License.⁹⁸ The EUPL was first intended to distribute the EC's own software. However, here would then be no direct benefit of creating a new OS license, when several exist already. The EC had some specific requirements, currently not covered by the existing ones:⁹⁹

- The licence should have equal legal value in many languages;
- The terminology regarding intellectual property rights had to be conformant with European law requirements;
- To be valid in all Member States, limitations of liability or warranty had to be precise, and not formulated "to the extent allowed by the law" as in most licences designed with the legal environment of the United States in mind;
- In addition, distribution of software should avoid the exclusive appropriation of the software even after improvement by a third party (therefore, the EUPL is a "copyleft" licence).

The EUPL dedicated website presents the same advantages of going OS as those listed here previously: "As the author of the software, you (or your organisation / administration) will keep full ownership of the software with a guarantee that your copyright is publicly known and

⁹⁸ For more information on the EUPL, see <https://joinup.ec.europa.eu/software/page/eupl/>

⁹⁹ See <https://joinup.ec.europa.eu/software/page/eupl/introduction-eupl-licence>

that your software will never be appropriated by a third party: all subsequent users will have to respect your copyright and if they distribute some improvements, you will benefit from it for free.”¹⁰⁰

Can such openness then still be associated with using an OS program for commercial purposes? Yes; all Open Source software can be used for commercial purpose. It can even be sold. Services can be sold based on the code, or tailored customisation and maintenance work can be offered.¹⁰¹ There are also other ways this would impact the business potential of an open source project. With adequate communication about the product created, and uptake by interested users and contributors, it might be possible to form a community around the program. It might become known as (or in part) a standard piece of code, gain in visibility and increase the long term sustainability of the work. Ideally, an institution could build a commercial service ecosystem around it.

¹⁰⁰ See <https://joinup.ec.europa.eu/software/page/eupl/how-use-eupl#section-4>

¹⁰¹ See <http://opensource.org/faq#profit> and <http://opensource.org/faq#commercial>

9 THE TECHNICAL SPACE

9.1 HOW THE TECHNICAL AND LEGAL SPACES FIT TOGETHER (FROM WP2)

9.1.1 Introduction

The Technical Space is developed in WP2 of Europeana Space to serve as a platform for storing, accessing and processing cultural heritage knowledge resources. While primary focus is in handling metadata in their various formats and serializations, the project will also accommodate the delivery of content in good quality where this is possible. A set of media repositories hosted by WP2 and pilot development teams, as in the case of video for the TV pilots, will complement WP3's Content Space. Content will be served online and connected with the stored metadata resources, while the authorized access mechanism will implement mixed licensing and IPR scenarios.

According to the respective requirements identified and reported in D2.1, the Technical Space should:

- Provide storage and access to medium and high quality content for use by web-based applications;
- Accommodate identified types of content, which include image, video, audio and text files in various formats;
- Associate content with metadata using URLs pointing to the digital object, together with a rights statement to define the conditions for re-use;
- Implement an access mechanism able to filter according to assigned rights statements.

9.1.2 Content sourcing and licensing

Pilots have provided information in their delivery plans regarding content needs, sourcing and creation, starting from their first development phases up to production. In the first period of the project there has been constant interaction between content providers and development teams for the platform and pilots, in order to address requirements and examine questions regarding the scheduling of content sourcing, its expected availability and, potential expansion of content sources during production releases.

There is also an ongoing discussion around the attributes of the project's Content Space, and specifically on the implementation of different access rules for content according to usage scenarios and identified users. As the focus of the project and its pilots is to develop best-practice use cases, it is expected and accepted that some content may be made available only for the project or for specific, limited re-use scenarios (such as for the project's hackathons). In this context, access for project partners and developers may follow different licensing strategies for content during the development phase, which may then be available to a wider audience and eventually to the public. In technical terms, the Technical Space must be able to implement access to content based on rights specifically stated for the purposes of re-use scenarios while clearly informing users of the associated licensing.

It is important – as stated clearly in the project – to promote openness of available and produced content, but in the same time to also cater for the needs and requirements of providers and specialized high profile content. As this is the primary goal of the Content Space in general, WP2 and the pilot development teams are complementing it with technical approaches regarding the monitoring and control of content usage and re-use, investigating technologies such as digital fingerprinting for images and watermarking for video.

It is envisioned that new or modified original content will also be produced through the usage of certain pilot applications, as is the case with metadata (new, modified or enriched) and user generated data. In this context, storage and availability needs have to be considered specifically for the case of content, due to its more demanding nature, together with potential licensing, monitoring and remediation approaches.

Pilot teams will be originally sourcing content during their development and deployment tasks, but in several cases it is foreseen that the end user will also be able to introduce new content from available sources. Europeana Space is investigating several channels of available content but it is focusing especially on content delivered through Europeana. The repository is not currently holding any such content clearly and readily available but there is an ongoing effort to prepare the infrastructure, procedures and, to eventually invite providers and standardize such contributions. Nevertheless one can already identify content in Europeana that match the creative applications' requirements and is available through the original provider infrastructure. Although this predominantly refers to textual resources and a small percentage of images, there is an ongoing information campaign and associated tools to advise and support content providers on the updates required in order to clearly label the rights and enable the conditions for reuse of their content.¹⁰² To identify and facilitate access to such content via Europeana, thus allowing interaction between content providers and creative industries, the Europeana Licensing Framework is currently being extended with a layer that governs access and re-use conditions for the content itself in addition to metadata.

9.1.3 Architecture & implementation

The outlined analysis led to the architectural decision that the Technical Space will allow for storing, searching, accessing and associating content, in an interoperable way with other Europeana initiatives. It will implement a content retrieval system to provide access to scalable storage services, allowing for content access based on agreed reuse scenarios. The storage layer will interface with the metadata repository to associate content with imported metadata as well as with the versions produced after the operations of the Metadata Processing Unit or via the pilot applications. The links between metadata resources and web content resources will also be available through the semantic repository.

The Technical Space will include appropriate APIs to enable the development of applications based on cultural content access while it will interface with and facilitate the use of the Europeana API for content discovery. The APIs of the Technical Space will use authentication and implement the access rules for available resources. It will enable discovery of content based on quality, licensing, and availability (online, download-only etc.). Finally, WP2 works on the definition of an API to establish alignment between DCH repositories with the JPSearch framework¹⁰³, which addresses interoperability in image search and retrieval systems.

For the content access layer, the Europeana Content Reuse Framework (CRF)¹⁰⁴ will also be considered for the Technical Space as its implementation evolves. This is a storage and access infrastructure developed by Europeana Creative to allow interaction between content providers and creative industries based on the Europeana Licensing Framework. The CRF specifies and implements the Content Layer of the Extended European Licensing Framework¹⁰⁵. The latter, evolved through initiatives such as the Europeana Connect and

¹⁰² This campaign has been described in ESpace D3.5 Rights labelling report - first release. ESpace partners will also be actively informed about Europeana's practices, needs and requirements on correct rights labelling as part of ESpace T3.5.

¹⁰³ <http://www.jpsearch.org/>

¹⁰⁴ See the Europeana Licensing Framework <http://pro.europeana.eu/documents/858566/7f14c82a-f76c-4f4f-b8a7-600d2168a73d>

¹⁰⁵ <http://pro.europeana.eu/web/europeana-creative/extended-europeana-licensing-framework>

Awareness projects, enables accessing high quality content based on respective rights statements. It is closely aligned with the work that is undertaken in the Europeana Cloud project on a cloud-based storage infrastructure. WP2 is informed and its partners participate in these developments as Europeana Space is investigating the potential of using the resulting infrastructure for its content storage and access needs. NTUA has participated in several of those evolutions and will continue to contribute and re-use their outcomes where possible.

The media server implemented by NTUA for image and text files is being developed using a PHP web application framework, Laravel, which offers an expressive syntax while handling important tasks such as authentication, routing, sessions and caching efficiently. It is deployed on an Apache Web Server and a MySQL RDBMS, and will be hosted initially on NTUA servers. As real use cases and usage scenarios evolve we will investigate the actual and expected requirements in terms of storage, and will be able to evaluate long-term, sustainable hosting solutions such as in cloud environments. Content may also be hosted by pilot teams individually or accessed directly from content provider repositories.

Finally, NTUA is also developing - as part of the CRF - a suite of tools for the extraction of technical metadata and content analysis, called the MediaChecker. The first version that is already available provides a collection of static functions that wrap around some of the best media analysis libraries available. These include ImageMagick for images, FFMPEG for audio and video and, iTextPDF for PDF files. The service updates metadata resources that link to the content to include information on dimensions, MIME types, color spaces or palettes and quality. The second version that is currently being designed introduces a Content Analyzer to perform classification of content and enable the use of more specialized analysis tools. NTUA is also planning to introduce content-based image analysis tools that can implement respective search engines. In that way users may be able to pose visual queries for specific classes of objects (e.g. buildings, people, faces and so on).

10 CASE STUDIES

There are six pilot projects within the E-Space project. However, in this section we include only two examples. The first is the Open and Hybrid Publishing Pilot, since it is a good example of a project that is focussed on content rather than tools, and will use only open rather than proprietary content. The second is the TV Pilot, since it is the most advanced pilot with the earliest hackathon due in May. The latter will be using tools developed within the pilot, and both open and proprietary content. The TV pilot is significantly further forward in thinking about the IP associated with both the pilot and the hackathon.

These following case studies, therefore, provide a fairly comprehensive view of pilot thinking and planning in relation to IP at this stage of the E-Space project. It is acknowledged however, that there is further variation within E-Space pilot projects as others such as the Dance Pilot, for example, will be using both proprietary content and proprietary tools.

10.1 CASE STUDY 1: OPEN AND HYBRID PUBLISHING

A tailored approach may be necessary for the Open and Hybrid Publishing pilot and the Demonstrators, whose Emphasis is primarily on education with business modelling being a secondary or longer-term consideration.

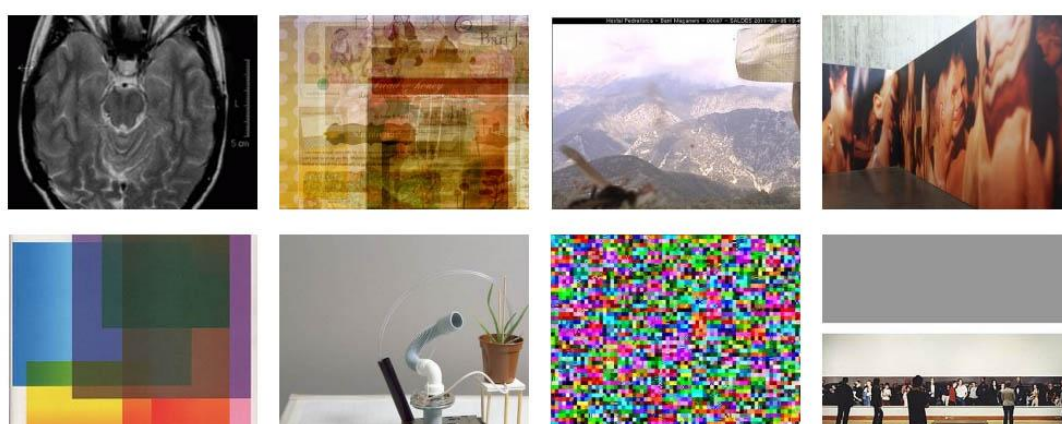
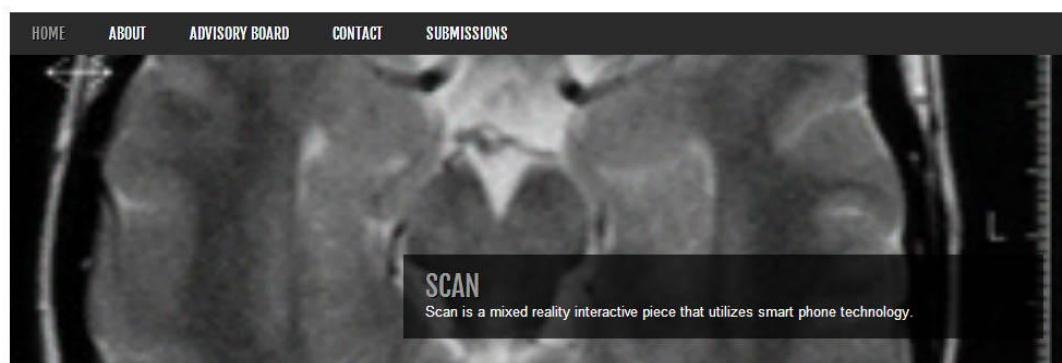
The idea behind the Open and Hybrid Publishing (OHP) pilot is:

1. To use open material (still and moving images as well as written articles available under CC and other open licences) for the construction of the book
2. To promote the use of open materials among different target groups (academics, curators, educational officers at different galleries, museums and cultural organisations, artists, independent publishers, and anyone else working with images) in any of their own publishing projects

The challenge for the pilots and hackathons to innovate with tools and content that are protected by copyright, applies less to this pilot than it does to the others, as does the need for a protected innovation space. The educational aspect of the OHP pilot i.e. its aim to inform people, especially those working with images, about the availability and diversity of open licence material, and about ways to undertake open & hybrid publishing in a low-cost sustainable manner, is a key aspect of what this pilot is trying to achieve. The content for the OHP pilot is also project-specific. Rather than asking the participants in the hackathon to reuse the content from *Photomediations: An Open Book*¹⁰⁶, this book will be treated only as an example, while participants are encouraged to search for their own project and topic-specific content in a variety of repositories. The first and probably the most visible deliverable, will therefore be this Open Book (a coffee-table book online), and a set of instructions and guidelines about open & hybrid publishing and working with open images in similar projects.

¹⁰⁶ See <http://photomediationsmachine.net/>

PHOTOMEDIATIONS MACHINE



Photomediations Machine, a open online space for exploring the relationship between photography and other media, curated by Prof. Joanna Zylińska (Goldsmiths) and artist Ting Ting Cheng

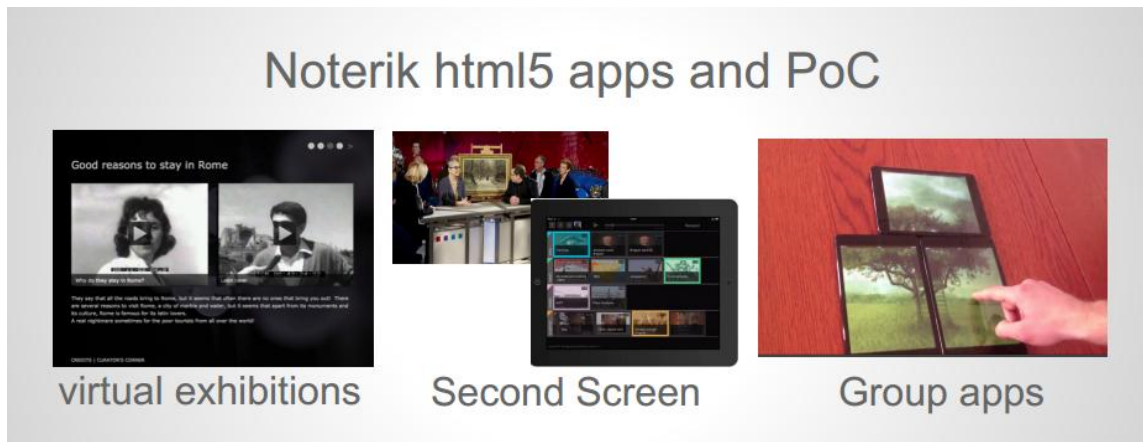
However, even if the material people are encouraged to use will be open, they may want to close and monetise products based on this material. While the project's hackathon will take the format of the Hack the Book festival, involving discussion, web search and basic note-taking, there will also be a live wiki, to do some 'speed book editing' during the hackathon. The collaborative note-taking platform and the wiki have the potential to become part of the proposed innovation space. Thought should therefore be given to the IP arising in these works.

10.2 CASE STUDY 2: THE TELEVISION PILOT

Noterik will provide all the tools for the TV hackathon under an open licence for participants to use. This will be on an optional basis, which means they can choose to provide or use their own systems if preferred, partly as a response to licensing questions. NISV will provide open video content via the Open Images platform. Luce most likely will not provide any openly licensed content but will take advantage of the protected space of the hackathon, making the content used in the pilot available for participants to use.

Project software providers and project content providers will make clear what restrictions, if any, they want to place on their provisions on hackathon Wiki pages prior to the event. This is mostly applicable to the content providers. They can provide content under any licence they choose, so long as it is made clear to the hackathon organisers and participants before, as well as during, the event. As long as there is sufficient transparency about what can be done with what content/software, few problems should be encountered. Pilot partners and leaders must,

therefore, decide which licenses they will make use of and fully consider how they will make this information as clear as possible.



Idea of tools to be provided in the TV hackathon by partner Noterik

Concerns have been expressed that a hackathon participant may make use of closed content or content only available in the protected space that is 100% irreplaceable for their project, which E-Space partner Remix would then have to spend time working out how to make available, instead of focusing on the further development and market-readiness of the project as a whole. However, this should not happen as the focus of the TV hackathon is on "applied" content (i.e. interchangeable with other sources) rather than on the content itself. This focus needs to be specified as part of the hackathon engagement 'rules'. The ultimate goal is business modelling, and it must be noted that anything that uses irreplaceable content will make the incubation process more lengthy and complicated. There are currently no plans to keep or share accessible copies of the hackathon outputs, so while ideas are to be shared openly in the hackathon, there will not necessarily be tangible products which carry new IP rights.

It will be important to assemble teams with like-minded attitudes to IPR for the hackathon. For the TV pilot, there are 2 pre-hackathon events scheduled for participants to meet and plan on a social basis. At this early stage it will be important to have clarity on where individuals sit on the spectrum of open to closed licences, and to attempt to assemble teams of individuals that feel comfortable with one another's attitudes to this. This will be an organic process, but the key point is that attitudes to IPR should be highlighted as an important consideration for participants at these early gatherings. The more that the 'IP policy' can be claimed as an organic, 'bottom up' policy, the more likely it is to work.

11 BUSINESS MODEL STRATEGIES

In part 2 of this deliverable (month 24), WP3 will advise on how to keep the reuse of Europeana content as open as possible at the business modelling stage. We will liaise with Gregory Markus, WP5 leader and Remix with regard to what IP tools would best serve partners during the incubation process. The aim will be to provide a 'how-to' guide for developing the pilot business models and the place of IP in those, building on the IP guides that already exist such as EuropeanaPhotography.¹⁰⁷

¹⁰⁷ See the IPR guidebook file:///C:/Users/aes231/Downloads/EuPh_D6.2_IPR%20Guidebook_2.0.pdf and IPR Workshop Outcomes <file:///C:/Users/aes231/Downloads/EuropeanaPhotography%20IPR%20workshop%20report%20&%20outcomes.pdf>

12 CONCLUSION

This document provides a comprehensive approach to intellectual property which is specifically tailored to the requirements of the E-Space pilot projects. This approach is based on the results of WP3 research into the proposed use of digital cultural content and associated tools within the six E-Space pilot projects and the planning of each of the pilot project hackathons.

This deliverable will feed into WP4 and WP5, since it will influence thinking and decisions made regarding IP in pilot and hackathon planning, the business modelling workshops and the incubation period. It will also influence the development of the technical infrastructure in WP2.

The second iteration of this deliverable, due in month 24, will aim to have a broader outlook and impact beyond the E-Space project.

The four main tasks for WP3 are now:

1. To continue to support the six pilot projects as they develop their open, closed or hybrid IP strategies for both pilots and hackathons until the successful completion of the E-Space project;
2. To further explore the strategies for integration of the legal and technical aspects of the Content Space in collaboration with WP2;
3. To provide further suitable tools including a 'how-to' guide for dealing with IP at the business modelling stage of the pilot projects;
4. To broaden and enhance the IP toolkit so that it can provide a comprehensive approach to IPR in the much broader environment of commercial exploitation of digital cultural content within and beyond the E-Space project.

The second iteration of this deliverable will share the values and aims of the first in its recommendation to open up content as much as possible, while trying to balance this objective with an increasing need to enable the commercial exploitation of digital cultural content for the purposes of boosting the economy and creating more job opportunities. Developing this business aspect alongside openness is the best way to build societies whose level of innovation is not only optimised by unprecedented access to re-usable cultural content but is also sustainable.

In the next iteration of the deliverable, it will be important to take into consideration the balancing of interests within an even broader context of stakeholders, as well as considering a broader range of intentions with regard to digital cultural content re-use, when creating new or modified IP tools. The deliverable will highlight the lessons learnt with respect to IP in the course of the development of the E-Space pilot projects and hackathons, which will be useful to future initiatives that share similar aims and objectives to the E-Space project.

Therefore, in conclusion, this deliverable not only provides IP materials for use by the E-Space pilots and their hackathon attendees, thus supporting their continuing development, but also provides the foundations for a final report on the E-Space Content Space and the legal aspects of the E-Space project.

13 APPENDIX: DEFINITIONS OF TERMS AND ABBREVIATIONS¹⁰⁸

13.1 GLOSSARY OF FREQUENTLY USED TERMS

13.1.1 Content Space

The Content Space is a platform of guidelines, recommendations and standards for managing content rights labelling, clearing and re-use. Its aim is to enable the creative exploitation of Europeana content, and it is built on the infrastructure services and tools offered by the Technical Space.

13.1.2 Technical Space

The Technical Space is a framework consisting of infrastructure & tools to access, use and store content data and metadata.

13.1.3 Protected Space

The Protected Space refers to the E-Space project pilot projects and hackathons in which unlimited innovation may take place without undue concern for rights clearance. It is defined by legal boundaries in the form of clauses added to existing licences which restrict re-use to the duration of a pilot project or hackathon, and by technical boundaries such as filters and protections which control who can access content and for how long.

13.1.4 Contested Space

The Contested Space refers to the broader, indeed global, environment of different stakeholders, such as content providers, users, authors, owners and policy makers, and their often conflicting interests with respect to intellectual property.

13.1.5 Copyright Space

The Copyright Space as used in this document simply refers to all the IP considerations arising within the E-Space project and the associated work of WP3 partners on the Content Space.

13.2 BASIC IP DEFINITIONS

The specific tools developed here include, in collaboration with WP4, suggested license terms that will support exploitation, use and re-use of each of the six different types of creative content. These will take into account the particularities of the genre (for instance the strong focus on moral rights in photography; the classification of dance as performance) as well as drawing on the significant experience in these sectors of licensing digital content.

In this chapter, we discuss some general concepts in the field of IP. As many resources already exist, this part is closed by an overview of available online resources for further reading.

13.2.1 Copyright

Copyright is the right for an author to control the reproduction and dissemination of literary and artistic works that he/she creates (authorial works). Also protected are the media through which authorial works are made available including sound recordings, films and broadcasts. These rights are called either copyright or neighbouring rights. The rights give to the owner exclusive economic rights for a set period of time to copy the work, issue copies of the work to

¹⁰⁸ These definitions have been developed within the Riches Project taxonomy (<http://www.riches-project.eu/index.html>) and are here shared with E-Space.

the public, rent or lend the work to the public, perform, show or play the work in public, communicate the work to the public, and to make an adaptation of the work. The author also has moral rights in the authorial works with the right of integrity and the right of attribution being the most common.

13.2.2 Digital copyright

Digital copyright is not a legal term but is often used to describe those circumstances in which authorial works and neighbouring rights are created, used and disseminated within digital environments. Encompassed within this term are the specific legal frameworks that have developed to address both the making available of works in digital environments (many of which stem from the World Intellectual Property Organisation Copyright Treaty 1996) and the challenges of enforcing rights within the digital environment.

13.2.3 Intellectual Property

Intellectual Property can be described as ‘the novel products of human intellectual endeavour’. Intellectual property rights are the rights and remedies that the (statutory and common) law grants to the owner to enable her to exert control over the products of intellectual endeavour. The main statutory rights are copyright, patents, trademarks and design rights. Common/Civil law actions include those in passing off/unfair competition and breach of confidence.

13.2.4 Author of copyright

For copyright, the author is the person who expresses creative ability in an original manner when developing a literary or artistic work: the standard is one of intellectual creation. Where choices are dictated by technical considerations, rules or constraints, then the criterion of intellectual creation is not met. An example is when footballers play in a football match. This could not be protected by copyright because the players play the game in accordance with pre-existing rules.

Joint or co-authorship arises where two or more people have contributed the right level of intellectual creation to a copyright work and their contributions cannot be separated. For example, in a collection of essays authorship in each of the essays will reside with the individual author because they can be readily be separated from each other. Where however two or more authors have collaborated in painting a picture, and it is not possible to point to part of that picture and say that one author rather than another painted that part, then the authors will be joint authors in law.

13.2.5 Owner of copyright

The first owner of copyright in a work is the author except where there is agreement to the contrary such as a commissioning agreement assigning ownership to a third party (where permitted by national laws). In some jurisdictions (e.g. the UK) where an employee creates a work in the course of employment, then the first owner is the employer. In other jurisdictions (e.g. France) it is not possible for an employer to be the first owner of copyright; rather the author must licence or assign the copyright to an employer.

13.2.6 Orphan works (EU)

An orphan work is a work in respect of which none of the rightholders (the author or owner) can be identified or located despite a diligent search. A diligent search is one that is carried out in good faith and consults appropriate sources for the type of work under consideration as determined in each Member State of first publication or broadcast and would include legal deposit, publishers associations and collecting societies.

13.2.7 Collective licensing (EU)

Collective licensing is a mechanism whereby collecting societies are given a mandate by their members to licence specified uses of copyright protected works to third parties. These works are made available via blanket licences which apply to a particular class of user (e.g. schools) and for a specific type of use (e.g. photocopying). Collecting societies are regulated under EU law to ensure good governance. To date licences are limited to individual territories. A current EU proposal suggests a multi-territorial approach for on-line music licences.

13.2.8 Extended collective licensing

Extended collective licensing is a form of collective licensing where the collecting society licences third parties to use categories of works for specified uses in return for a payment for the copyright owner. They often represent all rights owners on a non-exclusive basis for a specific category of work even though only a majority of rights holders are members of the scheme. Some laws allow for an opt-out for the right holder. Non-members need to be treated in the same way as member of the scheme

The most developed schemes are found in the Nordic countries and cover TV and radio broadcasting, on-demand services and mass digitisation by libraries. The UK has recently consulted on draft regulations that would introduce a limited extended collective licensing scheme in the UK. This will be most useful for those organisations with large archives and where clearance is costly.

13.2.9 Assignment of copyright

An assignment (assignation) of copyright is an outright transfer of the ownership of the economic rights in the copyright to a third party. Some jurisdictions in the droit d'auteur tradition do not permit assignation. National rules will dictate the formalities required, for example who has to sign the assignation (whether the assignor and the assignee) and if witnesses are needed.

13.2.10 Licence of copyright

A licence of copyright is the grant to a third party to exercise some or all of the exclusive rights to do some or all of the exclusive acts granted by copyright. A licence may be exclusive (no-one other than the licensee may exercise the rights), non-exclusive (the licensor may license the same rights to many licensees) or sole (the licensor may exercise the rights in addition to one licensee). National rules will dictate the formalities required, for example, who has to sign the licence (whether the licensor and the licensee) and if witnesses are needed.

13.2.11 Moral rights/Droit Moral

International (Berne Convention 1886)

Non-transferable inalienable rights to claim authorship of a work, and to object to derogatory treatment of a work that would be prejudicial to the author's honour and reputation. The rights recognise non-economic interests an author may continue to exercise in respect of a work even though no longer owner of the copyright or of the tangible work in which the copyright reside. The rights last as long as the copyright in the work in some countries (UK); and forever in other countries (France). Some countries allow moral rights to be waived or require assertion before they are enforceable (UK); in others the rights are perpetual, inalienable and imprescriptible (France).

13.2.12 Communication to the public (EU)

The Information Society Directive (2001/29) Article 3 provides for an exclusive right to communication to the public of works protected by copyright.

Three criteria have been identified as important through the developing Court of Justice case law:

- **The public:** There should be a relatively large but indeterminate number of potential beneficiaries of the communication. Communicating a signal to hotel rooms (an indeterminate public) where there is a revolving public is sufficient, but a dentists' waiting room is not (a small determinate group at any one time).
- **The new public:** The communication must be directed at a public, not taken into account by the copyright owner at the time of the initial communication – a new public.
- **The profit making nature of the communication:** Does the communication influence the behaviour and decisions of clients? Communication in a hotel is of a profit making nature because it is an additional service that might attract additional guests. A dentists' waiting room is not a profit making nature and would not have any impact on the number of clients.

13.2.13 Performer

A performer is an actor, singer, musician, dancer or other person who acts, sings, delivers, declaims, plays in or otherwise performs a literary or artistic work.

In respect of unfixed performances, a performer has the rights to prevent the broadcasting and communication to the public of their performance, and the fixation of their performance. Where a performance is fixed, the performer has the exclusive right to authorise reproduction, distribution, making available, rental and communication to the public of copies of their performance. The rights last at least until the end of a period of 50 years from the end of the year in which the performance was fixed (70 years EU). Where the rights are transferred to a third party, national law may provide for equitable remuneration for the performer.

Audio visual and aural performers have moral rights to claim to be identified as author of the performance (except where omission is dictated by the manner of the use of the performance) and to object to any distortion, mutilation or other modification of their performance that would be prejudicial to their reputation. The rights should generally last for at least as long as the economic right.

13.2.14 Out-of commerce works

Memorandum of understanding on the digitization and making available of out of commerce works (MOU) (EU)

Publishers and authors have agreed via the MOU to negotiate in good faith via collecting societies with publicly accessible cultural institutions to make available out of commerce works for agreed uses.

An out of commerce work is one which the work and adaptations of the work are no longer available in customary channels of commerce. The availability of tangible copies in libraries and second hand bookshops does not thereby mean that a work is not out of commerce.

13.2.15 Copyright term

The length of time for which copyright subsists in a protected work calculated from first of January in the year following the event giving rise to the term.

International

At international level, the Berne Convention 1886 provides that literary and artistic works should be protected for the life of the author plus 50 years. Many countries including the EU have raised this to 70 years after the death of the author.

EU

- Literary or artistic work: 70 years after the death of the author. In the case of joint authors 70 years after the death of the last author
- Anonymous or pseudonymous works: 70 years after the work is lawfully made available to the public. When the pseudonym leaves no doubt as to the identity of the author, or if the author discloses his identity, then the term of protection shall be as for literary and artistic works.
- Cinematographic or audiovisual works: 70 years after the death of the last of the principal director, the author of the screenplay, the author of the dialogue and the composer of music specifically created for use in the cinematographic or audiovisual work.
- Musical composition with words: 70 years after the death of the last author
- Photographs: 70 years after the death of the author.
- Phonograms (sound recordings): 70 years after the fixation is made. If the phonogram has been lawfully published within this period, 70 years from the date of the first lawful publication.

13.2.16 Exceptions and limitations to copyright (EU)

Things that may be done with a work protected by copyright without the consent of the owner of the copyright. The Information Society Directive contains a closed list of exceptions and limitations that Member States may incorporate into their domestic laws.

In relation to the right of reproduction these include:

- photographic reproductions on paper or any similar medium of works (excluding sheet music) provided that the rightholders receives fair compensation;
- reproductions on any medium made by a natural person for private use which is non-commercial provided that the rightholders receives fair compensation;
- reproduction made by libraries, educational establishments, museums or archives, which are non-commercial;
- archival reproductions of broadcasts;
- reproductions of broadcasts made by "social institutions pursuing non-commercial purposes, such as hospitals or prisons" provided that the rightholders receives fair compensation.

In relation to the rights of reproduction and communication to the public these include:

- illustration for teaching or scientific research, provided the source, including the author's name, is acknowledged;
- uses for the benefit of people with a disability;
- current event reporting, provided the source, including the author's name, is acknowledged;
- quotations for purposes such as criticism or review, provided the source, including the author's name, is acknowledged;
- use necessary for the purposes of "public security" or to the proper performance or reporting of "administrative, parliamentary or judicial proceedings";

- use of political speeches and extracts of public lectures or similar works, provided the source, including the author's name, is acknowledged;
- use during religious celebrations or official celebrations "organised by a public authority";
- use of works such as architecture or sculpture located permanently in public places;
- incidental inclusion of a work in other material;
- the advertising the public exhibition or sale of artistic works;
- caricature, parody or pastiche;
- for demonstration or repair of equipment;
- use of an artistic work, drawing or plan of a building for the purposes of reconstruction;
- for non-commercial research or private study.

An emerging 'European' understanding of some of the exceptions and limitations is developing through case law emanating from the Court of Justice.

13.2.17 Public domain

Works that are no longer protected by copyright or which were never protected by copyright. This would include works on which the term of protection has expired as well as works that fall into an exception or limitation in copyright law. Works that are in the public domain may be used freely by third parties in relation to any of the acts restricted by copyright without permission from or payment to the author or owner.

13.2.18 Infringement

The use of works protected by copyright without the permission of the owner of the copyright thus infringing the exclusive rights of the copyright owner.

13.3 INTERNET RESOURCES

13.3.1 World Intellectual Property Organisation Resources: Managing Intellectual Property for Museums

An excellent guide to managing intellectual property for museums by Rina Elster Pantalony for the World Intellectual Property Organisation published in 2013. Available at http://www.wipo.int/edocs/pubdocs/en/copyright/1001/wipo_pub_1001.pdf

Note in particular:

- Chapter 4 on Intellectual Property management for Museums
- Chapter 5 on Experience Economy
- Chapter 6 on Business opportunities for museums. Note in particular the endorsement of the strategy that 'providing unfettered access to museum images is actually good business – p. 46.

13.3.2 The Legal Status of Video Games: A comparative analysis in National Approaches

By Andy Ramos, Laura Lopez, Anzo Rodrigues, Tim Meng, Stan Abrams, available at http://www.wipo.int/export/sites/www/copyright/en/creative_industries/pdf/video_games.pdf

A report on the origin and copyright status of video games in 24 different jurisdictions. Published in 2013. The majority of jurisdictions tend to protect these works as software because the common element is the computer program. They do contain multiple copyright works including literary works, graphics, sounds, characters and software

13.3.3 *Mastering the Game: Business and Legal Issues for Video Game Developers*

Published in 2013, available at

http://www.wipo.int/export/sites/www/freepublications/en/copyright/959/wipo_pub_959.pdf

A report looking at the business and legal issues that may be encountered in developing and distributing video games across numerous platforms. These include IP and regulation to forming relationships with publishers, platform manufacturers, distributors and content owners. It includes business issues and contractual terms.

Note in particular the questions that will be asked when developing software

- questions for the developer when the publisher owns the IP to the game p 67
- publisher helps finance a game based on developers concept p 71.

13.3.4 *JISC resources*

JISC stands for the Joint Information Systems Committee. It is a UK based public body that develops resources around digital needs for the education community in the UK. It contains valuable resources that are of relevance beyond the education audience.

IPR and licensing module: a link to an IPR and licensing module. While it is based on UK law, many of the principles that are highlighted are of value to participants in E-Space. Available at <http://www.web2rights.com/SCAIPRModule/rlo1.html>

13.3.5 *Creative Commons Licences*

A brief video explaining Creative Commons Licences, available at <http://sca.jiscinvolve.org/wp/allpublications/ipr-publications/creative-commons-licences/>

For those of you who want to go further and find out more in particular about US copyright law, you might find this open course book by James Boyle useful, available at <http://www.thepublicdomain.org/2014/08/26/open-coursebook-in-intellectual-property>

The Public Domain: Enclosing the Commons of the Mind: this is a comic style publication on the public domain. Available at <http://www.thepublicdomain.org/comic/>

13.3.6 *CREATE*

In the UK, a Centre called CREATE has been established at the University of Glasgow with extensive links to other Universities and into a diverse range of businesses. Funded by the research councils (public money) the purpose of this centre is to research into digital business models. They have and are producing papers and other resources looking at all aspects of this area. The general website is at www.create.ac.uk

13.3.7 *Archives and Copyright: Developing an Agenda for Reform*

A resource has been produced as an orientation point in critically assessing how copyright shapes the work of archives as it relates to preservation and access. The resource recognises that the copyright regime enables and facilitates the work of archivists, but that it can also inhibit and frustrate that work. As such, the resource considers what role a risk-based approach to copyright compliance might play in making it easier for archivists to preserve their

collections appropriately, and in making those collections as accessible and as useful as possible. Available at <http://www.create.ac.uk/archivesandcopyright/>

13.3.8 Copyright User

Note that this is based on UK law but does have useful information that is applicable across jurisdictions

Copyright User is a multimedia resource aimed at helping creators, media professionals and the general public understand copyright. Copyright User consists of videos, interactive tools, subject resources, and FAQs. The resources are meant for everyone who uses copyright: musicians, filmmakers, performers, writers, visual artists or interactive developers. We inform creators how to protect their work, how to license and exploit it, and how to legally re-use the work of others. See <http://copyrightuser.org>